



DEVELOPING A NATIONAL STRATEGY FOR FIRE SAFETY

Seeking a framework to effectively manage fire risk to help
achieve a sustainable and safer society

FOREWORD

A NEW APPROACH

This document proposes that we need to think afresh about fire safety in the UK; to use our knowledge, expertise, and understanding to create a better pathway that genuinely places fire safety for people and economic wellbeing as the clearest of targets, to protect us from the harm of fire.

Achieving this target requires the creation and implementation of a holistic national fire strategy. With this paper, we wish to start a discussion with government and partners to shape that strategy.

THE CONTINUED THREAT

Experience shows that fire remains a global threat to human life and wellbeing. It is a threat that requires action and vigilance. Governments, globally and at all levels, are not immune from this threat.

All seek effective controls, but shocking tragedies, most recently the Grenfell Tower fire, show recurrent underlying causes like culture, indifference, complacency, poor awareness, and lack of understanding continue to fuel failure.

Our view, as an informed group of fire orientated professionals, is that the current policy based upon reliance on retrospective actions is flawed and must change. We need a clear, proactive and coherent fire strategy based upon research, intelligence, competence, technology, and investment.

LOOKING PAST THE LEGISLATION

Our insight and analysis is that the current remedy of a major overhaul in the building safety regime will be insufficient to address fundamental issues. A UK Fire Strategy must go beyond legislation.

We echo government's consistent acceptance that the fundamental UK policy imperative is to protect its citizens. That protection is not simply about life safety; its thread is deeper, impacting on natural and economic environments and longer term health and wellbeing since fire kills both directly, and sometimes more subtly, through health and social consequences.

Without a strategy we will always seek to reconcile and compromise, rather than take direct forceful action to meet the cherished aim: that fire safety itself must be safeguarded. Examples abound as we try to increase economic performance, demand better resource sustainability, call for higher infrastructure resilience, press to lower energy demand through insulating buildings, explore innovative alternative fuels, and build faster lower-cost housing.

Added to these challenging policy reconciliations, our legislation is becoming more functionally focused. In a time of austerity, public investment cannot be sought without demonstrable economic benefit. Workforce flexibility is heralded as important provided it is balanced with valuing human endeavour and dignity; and, above all, we demand the highest safety standards without overly prescriptive controls.

A policy of proportionality, the current watchword, can easily become a resistor to progress. Aligning safety, security, resilience, and sustainability in such circumstances is a significant challenge when, from the fire sector's informed perspective, the foundations of fire safety are being eroded or are missing. This demands challenge and alternatives based upon merit and experiences.

“Without a strategy we will always seek to reconcile and compromise, rather than take direct forceful action...”

EXECUTIVE SUMMARY

In the experience of the fire sector, having reviewed the current landscape for fire safety in the UK, we remain concerned that fire will not be effectively controlled, particularly in the built environment, without further added measures. We need a UK Fire Strategy to join all the dots of a complex system to create a pathway to a fire safe society.

Our vision is to create a framework to effectively manage fire risk and create a safer and sustainable society. The strategy addresses current observed gaps in fire safety to aid the setting of priorities, for government and the fire sector, to deliver success.

KEY MESSAGES FOR GOVERNMENT

- Ensure that fire remains a priority, especially since success can lead to a falsehood and complacency. An extremely fast-changing built environment demands continued resource allocation.
- Integrate policy across government departments, devolved administrations, and executive agencies as an important step to help achieve a greater impact focused on fire.
- Utilise available expertise from within the fire sector and elsewhere to help share the demands and burdens placed on all those working to improve fire safety in the UK.

WHAT THE FIRE SECTOR WILL DO

Building safety depends upon having a holistic approach to risk assessment and mitigation. We recognise this is now being underpinned by further law, to ensure clarity of individual personal responsibilities, which we welcome and are working hard to ensure it is understood and adopted.

Provided those responsible understand a building's safety requires a fire strategy and application of standards, which are carefully considered when handovers and changes happen, we believe confidence can be re-established in the UK's accepted position that fire was under control.

THE FIRE SECTOR WILL NOW ACT ON 3 IMMEDIATE PRIORITIES:

- Continuing its efforts to raise competency in those activities in which it has influence
- Seeking to broaden the understanding and mitigation of fire in volumetric buildings and those using mass timber
- Partnering those involved in the construction sector to raise understanding of the fire risk arising from innovative products, practices, and methodologies.

TARGETED ACTIONS INVOLVING PEOPLE, PRODUCTS, AND PERFORMANCE

- Recognising the value of third-party assurance
- Creating a good building legacy by better controlling what we build now
- Managing innovation in construction better to bridge the gap prior to regulation
- Protecting essential infrastructure for public and commercial wellbeing
- Working to build competence and fire risk assessment and awareness.

THE FIRE SAFETY LANDSCAPE

Despite the far-reaching proposals of the Building Safety Act 2022 reforms and the commencement of the Fire Safety Act 2021 amending the Regulatory Reform (Fire Safety) Order 2005 to increase fire safety rigour in occupied buildings and the built environment, there continues to be a threat to life safety, in addition to that posed to property preservation, and business resilience and continuity.

The regime will also do little to reduce unnecessary direct economic loss of buildings, and this could exacerbate social consequences such as lower productivity performance and health deterioration. At this important time in a post Brexit and pandemic era of austerity, with added strains on global supply chains from international tensions and conflicts, it is essential that a fresh outlook is taken.

The systems in place and proposed will not fully sustain fire safety and, as a country and nation, we need to move more quickly and decisively, not just to avoid any further catastrophic events, so we can create a sustainable and resilient built environment that supports and protects people, our planet, and the future.

There is a requirement to further professionalise the fire sector, and to put fire professionals back into leadership of fire safety. Working from foundation principles, an overriding need is to drive standards upwards, re-establishing professional oversight to utilise expertise in all its contexts. Collaboration between the different parties and partners involved is essential.

The existing standards need overhauling and establishing a new framework will offer a sound platform for the statutory regulations and controls to maintain and continue effective standards. This process, which the fire sector should lead, is not complex and should be recognised and supported by the government.

The fire professions are diverse in disciplines and practices. Learned institutions, public services, trade unions, manufacturers, technologists, trades, suppliers, industries, test houses, researchers, trainers, academics, focal interest groups, and administrators, all combine and cooperate in common cause to promote and deliver fire safety.

This allows views from multiple vantage points that can provide distinct alternative and justifiable perspectives, bounded by both competitive and altruistic behaviours.

Operating in what is an infinitely variable and changing landscape is a complex task; it is an arena that constantly challenges.

However, working with construction professionals, the fire sector has depth and strength of knowledge and understanding about fire, beyond the UK, which is essential in searching and reaching decisions to identify the means to defeat, or at the very least reduce, fire's consequences.

Having the knowledge and flexibility gained from enterprises and institutions will help Britain meet the continuous evolution experienced across this vast policy area.

“Fire has historically been a low priority in Britain...”

WHY WE NEED A NATIONAL FIRE STRATEGY

A strategy is about coherence and guiding policy following diagnosis of difficulties or barriers that are preventing success. Our target is a safer environment from fire. Our diagnosis is that there are barriers that can and should be removed or managed and the following examples indicate why we need to create an integrated national fire strategy.

FIRE SAFETY IS NOT A PRIORITY

Fire has historically been a low priority in Britain. Despite stages of improvement and real coherence, such as happened in the immediate post-war period, and the investments in step changes of approach,

as witnessed when Britain led global fire engineering to help achieve considerable design improvements in buildings, progress has been evolutionary rather than planned. More critically, the pathway has been of stuttering indifference.

CREeping COMPLACENCY

Many arguments can be postulated for our current national approach, not least complacency. Two decades of low death rates led policymakers to believe in the false assumption that they understood fire and had it under control. One clear consequence was that Building Regulations for fire stagnated just as the construction sector

expanded in its economic importance with investment in new solutions and grew in its national influence.

Simultaneously, construction techniques changed for several reasons like cost, requirement for better insulation, faster building of homes, etc. and different materials, often with more combustible content, were introduced alongside a growth in the offsite manufacture of building elements. The building sector workforce also evolved, down skilling its overall understanding of fire, and altering on-site supervision as the focus shifted to cost management.



Our elderly remain at risk

This has led to the lowered priority, as fire competes with numerous policy areas demanding attention. However, we suggest that being comfortable with fire's placement in the policy prioritisation framework is a serious miscalculation. That miscalculation needs reassessment and adjustment because prioritisation affects resources and without investment, the risks of further catastrophic failures will continue.

Fire safety legislation in Britain continues to be reactive to tragedy. The term 'stable door legislation' was coined to reflect this approach several decades ago and must now be seen for what it is: an entirely unacceptable policy to safety.

A HOLISTIC APPROACH

We must not make new mistakes whilst learning from the past. We are embarking upon a regime shift in the built environment to recognise that rigorously enforced compliance in fire safety at the design and construction stage of major projects to prevent catastrophic fires is essential, whilst failing to also see that it is a relatively small part of what is an infinitely more complex and larger scale problem.

Likewise, the built environment is only part of the larger problem of fire, which affects life safety in so many other spheres of occupation and endeavour. What we are doing is looking at isolated parts of an issue, when what we need to do is to look at fire in the round, to upscale the issue, and to find more effective ways of bringing our collective resources into play.

FRAGMENTED POLICY

Fire is what might be termed a difficult issue and not simply because of its dreadful impacts but because it is so omnipresent, affecting multiple policy areas; be they education, transport, public protection, or the environment.

The list is long, expanding, and changing constantly as our technologies, climate, civil society, and aspirations evolve. Many policy areas exist in silos, lack interconnection, and operate ineffectually with each other, which is to the detriment of the public.

Redressing this policy indifference is further compounded by the view that the subject of fire is seen as invested and the prerogative of one government department: the Home Office, and even in one service: that of fire and rescue.

This demonstrates limited understanding and scope. In our view, this leads to overly constrained thinking when what we need is a clear Four Nations Interdepartmental Fire Safety Strategy that has a common safety purpose, albeit with different building control systems.

The absurdity of the omission of an integrated UK strategy is clearly evident in the built environment where we see two policy areas: construction and occupation, managed by two government departments, which must be coordinated if success is to be achieved following the Grenfell Tower fire.

LACK OF STRATEGIC OVERSIGHT

A strategic oversight is required to ensure every priority does not ignore how it may impact on fire. For example, have the fire safety implications of the 'Green Agenda' driving zero carbon targets to meet climate challenges been fully examined or understood?

Having a coherent strategy that aligns with national and devolved government, coordinates policy and action, departments and stakeholders, research and observations, technologies and materials is fundamental. We must renew and realign our perspective on fire to gain better safety control.

INDUSTRY EXPERTISE

The use of expertise is crucial to translating any complex area of overwhelming detail into a clear and understandable plan. This is especially so for the many users operating in different disciplines across fire's fragmented technical sector.

The Grenfell Tower Inquiry has provided a powerful insight into this sector through the optic of a single event. In doing so, it has created a clearer view of the availability of the wide range of expertise capable of supporting policy in the fire environment.

However, it also illustrates, as the example of the available expertise and knowledge of material behaviour under test conditions shows, how despite having pertinent information around fire test performance, this might fail to be communicated, translated, and escalated to influence important action because of commercial confidentiality.

EROSION OF GOVERNMENT EXPERTISE

Conversely, the progressive strategy of reducing the size of central government, whilst restating its central role as a final arbiter rather than leader and promoter of action, has also had impact. Expertise at the centre has deliberately been reduced and transferred closer to the action of implementation and decision making.

Our view is this has brought with it a decline of government 'in house' expertise and hence greater reliance on other contracted parties to interpret and guide government policymakers. Ultimately, this affects the quality of briefings and information for parliamentarians who are working towards legislative changes.

COMMERCIALISATION

These major alterations in leadership and role are also linked to other profound shifts in the fire sector. The commercialisation of leading institutions like the Fire Service College and Building Research Establishment has altered how expertise and knowledge are gained and shared and crucial connections, such as comparison between how buildings burn in real fires as observed by firefighters and how materials on test burn observed by test laboratories, are lost.

There is reluctance to engage more closely with industry, partly understood to avoid undue influence and commercial interest, with stratification to delineate between stakeholders and policymakers. This introduces both glass and real ceilings; barriers that can and should be resolved by mutually accepted ethical standards of behaviour that promote public responsibility and safeguard confidentiality.

“Fire safety legislation in Britain continues to be reactive to tragedy...”



A FRAMEWORK FOR SUCCESS

This failure to invest and connect elements of expertise plays a very significant role in reducing the overall capability to exploit and manage the 'fire' issue. It represents a serious weakness that prevents competency from successfully improving public fire safety.

The foundations of fighting fire lie in understanding the science and its behaviour. This is essential as new materials and practices emerge, perform, and react in real fire situations.

The research and lessons from practical performance are presently widely dispersed without tangible connections within vital parts of the fire sector.

The Home Secretary's recent reform proposals for the fire and rescue service in part offer hope of a return towards open research, primarily to increase service professionalism, but this is a restricted element of the substantial rebuilding needed to meet the overall research deficit.

Decisive action is required. We need to determine what is essential and what is desirable, and what should be provided by government, either in partnership or by the fire sector alone. We therefore propose a broad framework of three strands of work to address this matter based upon:

PEOPLE

Competency and commitment are at the heart of all success in safety. The willingness to admit to not knowing what action is best is an essential cultural shift; to seek advice when in doubt; to remain stalwart in seeking to do the right thing in the face of pressure.

Building upon knowledge and skills gained in training through experience is central to behaviour that recognises 'safety above all'.

PRODUCTS

Materials, components, assemblies, methodologies and installation practices all impact on safety.

Understanding the concepts, testing, designs, specification, limitations, and correct use of all these products is vital to ensure continuity of integrity so that when placed into use they are fit for purpose.

Incorrect substitution, misuse, and variation must be eradicated to prevent failure and unintended consequences.

PERFORMANCE

People and product performance directly influences risk, resilience, and sustainability.

Individual accountability and responsibilities; understanding and awareness of change; assessment and maintenance of fire safety features; are all critical benchmarks in this cycle of performance.

Over time effectiveness can become complacency and vigilance and observation of what is happening in the wider environment diminishes. Staying vigilant and monitoring performance is essential.

“Competency and commitment are at the heart of all success in safety...”

TARGETED ACTIONS

Developing a strategy of real benefit takes time and is not simple to execute. Time is important and without action in the short term we risk further events and failures. This must be avoided as well as allowing the new regimes to bed down and become effective in practice. Our proposal is therefore for further short-term actions to address key fire safety issues.

THIRD-PARTY ASSURANCE

The challenge

Independent third-party assurance to approved standards is common in all industrial sectors offering a dependable way of demonstrating quality. As part of the approval process, UKAS accredited third party certification bodies are required to independently assess companies and check they are working competently under an appropriate and recognised quality management system to the appropriate standards to meet best working practices for a specific service (e.g. fire risk assessment).

Third party assessment provides quality assured independent evidence that the provider can do what they say. In the fire protection market, there are a range of accreditation and certification schemes covering both active and passive protection system design, installation and maintenance, ensuring both compliance to recognised standards and competence in delivery.

It is, however, recognised that whilst widespread, there are gaps where schemes are yet to be approved and companies in the process of being accredited. It is our view that third-party accreditation has major advantages for end users and regulators alike and should be a mainstream strategy.

Solution

Whilst the ambition would be to secure mandatory use of the third-party accredited fire risk assessors and installers of fire protection products and services, a strong interim step would be the introduction of a statutory defence in law for those responsible for the fire safety of buildings if they were to use a third-party accredited organisation for the delivery of those services, and to incorporate third-party accreditation within official guidance.

BUILDING LEGACY

The challenge

The continuing loss of recently constructed buildings raises a deep concern that construction methods and material combinations are leaving a legacy that threatens safety, is environmentally damaging, resource wasteful, and leaves communities on borrowed time in facing another catastrophic fatal fire.

The Beechmere¹ residential home fire in June 2019 is a clear example of a near-miss. It highlighted inherent

weaknesses in securing safety by reviewing the suitability of timber frames for identified uses like care homes. Similar concerns have been raised on volumetric buildings where again the substance of building regulations is overridden by methodologies and construction practices that have not been researched or tested as units of accommodation as integral design systems. Our overriding principle is that new building methods and technologies must be accompanied with a clear understanding of how these structures perform in fire and what are the appropriate and necessary mitigating features to prevent fire spread.

Manifestly, there will always be a limitation to any current advisory documents on fire safety, as publication incurs after a time lag to incorporate current construction methods and materials. Specific issues have already arisen, such as the challenges of both vertical and horizontal fire spread in hidden and unprotected voids in stacked modules lacking fire compartmented construction. When combined with the appropriateness of current testing for products, where restrictions can lead to components and products being individually tested rather than assemblies and completed units, this demonstrates there are recognised weaknesses in the building legacy now being constructed.

¹Beechmere Crewe Cheshire

Although referred to as modern methods of construction (MMC), this is now the predominate approach to home building and creates serious fire safety issues. If our foundation principles are followed, this is another clear example of the need to review. Such a review would also need to examine the relationship between materials increasing buildings' thermal performance, and fire. Building regulation compliance is no longer a guarantee that buildings are safe.

Solution

The fire sector would wish to see a statutory Code of Practice produced by a combined fire sector, public policy, business, and supply stakeholder group, to ensure that fire safety is signed off in volumetric buildings and to re-examine timber frame evidence of fire performance aimed at securing safer outcomes from fire.

IMPROVING BUILDING REGULATIONS

The challenge

Building Regulations, for the reasons outlined previously, permanently lag behind the UK's highly innovative construction industry, but the system could be modified to make it more proactive. Regulators therefore need to have good future awareness of the implications of building adaption to meet major policy demands like zero carbon. ADB² focusing predominantly on life safety also has little or no provision for property protection – for some types of buildings – where the ambition can be simply 'evacuation before collapse'.

This is contrary to having a sustainable, economic, and social policy with unnecessary losses being inflicted on communities when buildings, and industrial and commercial enterprises are lost, and cultural and social fabric disconnected.

There is no common vocabulary or definition of fire risk across industry and gaming of the system is continuing as illustrated when London Fire Brigade identified 1,100+ properties had been moved from phased to simultaneous evacuation because of continued fire risk. We must recognise the failures that happen between manufacture and fitting of products and regulations that initiate or support the zero-carbon agenda have to consider toxicity as one of the material selection criteria.

Solution

Immediate action should be taken by ministers to engage the fire sector and others to assess the relevance of international building codes and if necessary, develop a code of practice for issues like fire protection of MMC that ultimately could be incorporated into Building Regulations.

Similarly, with an energetic Office of Safety and Standards, the introduction of better product controls via UKCA post Brexit can reverse and help make the substantive cultural shift from 'cheapest' to 'safe quality'.

The built environment requires informed decision making about products, components, systems, and practices. Independent and transparent scrutiny with real awareness and openness around issues likely to impact fire safety is required for information to be of value. Reconciliation and management of the commercialisation of testing and assessment and its link to poor public awareness or research as evidence of poor safety performance must be addressed.

EFFECTIVE USE OF RESEARCH

The challenge

If the Building Research and Health and Safety Executive Research Establishments are to be effective, they cannot continue to operate

in the current way, with research outcomes selected or denied for public disclosure. Likewise, not using all the research and testing capacity currently available, like those independently overseen within accredited laboratories and test facilities within the fire sector, limits availability to wider expertise. Funding new material testing and addressing the confidentiality of manufacturers' testing of innovative products whilst seeking to maintain public safety remains a subject that needs to be sensitively addressed given the cost and commercial confidentiality involved.

Solution

Creating a stronger research community with a public charter and access to a funded agile programme for fire research and development would help the UK re-establish its expertise and knowledge within an integrated policy and communication process.

CHANGING CULTURE

The challenge

Communicating and changing the perception that fire safety is a burden that can be applied in a discretionary way requires practical education across the construction industry.

Solution

Driving that cultural improvement requires the Building Safety Regulator to stimulate policy from the client's boardroom to the on-site workforce. Introducing better fire safety education and training for workers in all parts of the construction sector, be it through professional institutions, trade bodies, skills, and other training agencies to ensure a positive mindset exists towards fire safety is crucial to changing the current culture.

²The Building Regulations 2010 Approved Document Part B (fire safety) Volumes 1 and 2 (2019 amended 2020 and 2022)

COMPETENCY

The challenge

An underlying principle of fire safety is competence: having the knowledge, skills, experience and behaviour to perform a task correctly. The Building Safety Regulator now has a key duty in this respect. The Regulator cannot be everywhere at once. Stating clear accountabilities and responsibilities in law, to define and require competent action, is necessary if enforcement is to be effective. Discovering poor application after a fire has happened is not an acceptable policy or desired outcome.

Solution

Every individual must be competent in their personal role and task if fire safety is to work effectively. This is a founding principle that requires investment by all individuals and their employers.

PROTECTING PUBLIC INFRASTRUCTURE

The challenge

Investment in protecting critical public infrastructure is slow and not prioritised. Flooding a decade ago showed the importance of protecting power generation sites, and fires near motorways highlight the vulnerability of the transport networks. Schools, so often destroyed by arson attacks and valued in the commitment made in the pandemic to keep them open at all costs, are a further example of a complacent attitude to protecting infrastructure.

Active fire protection is vital but downplayed. What is required is to go beyond the identified national critical infrastructure process, often already recorded in resilience and similar registers, and seek out infrastructure that really matters to social cohesion and wellbeing. Lifetime costing of fire protection demonstrates the value of installing systems of fire control and mitigation.

Protective solutions are often cost effective and worth investment when a longer-term view is taken. Asking the fire sector to help source better solutions in active and passive protection will also drive up standards. Securing national resources that assist the UK in maintaining economic performance and social wellbeing with better fire protection should be a shared target, not one begrudgingly adopted.

Solution

Our default position as a fire sector is to argue, with substantiated evidence, that introducing more automatic water sprinklers is a practical and often cost-effective solution. In schools and care premises they should be insisted upon rather than installed by exception.

The principle of prevention in building resilience and sustainability must be the policy expectation in public infrastructure to secure better protected public buildings.



We still fail to protect our schools

Buildings used to care for the vulnerable, like hospitals and care homes, together with educational facilities like schools especially for young children, should be defined as requiring this level of protection and the fire sector should be invited to join established forums of resilience at local and national level that consider wider critical national infrastructure.

CAPACITY AND COMPETENCY SHORTFALLS IN FIRE RISK ASSESSMENT

The challenge

Recognising the impact of unintended consequences is an example of where consultation with the wider fire sector may have produced a different result. The example of the high demand and reduced capacity faced in all skilled fire safety professional areas following the Grenfell Tower fire is a case in point. Here the misunderstanding and misuse of the external wall surveys, now being counteracted by government initiatives to separate out assessment of threats to life from property values, grossly distorted insurer and public perceptions, resulting in serious but avoidable difficulties.

The impact or risk aversion created has also driven existing fire risk assessors away from residential building assessments at a time when they are needed most. Most fire risk assessor work is not around higher risk buildings, rather it is in the general workplace and lower buildings. The risk aversion climate created reduced available general fire risk assessor numbers, partly because of their inability to obtain professional indemnity insurance from insurers who had withdrawn from the market because they found it impossible to value their companies' risk exposure. Linked to current high demand, this failure to find professional insurance compounded the shortage leading to concern that overall capacity and competency cannot satisfy the new safety regimes.

Solution

The fire sector responded early to increase competency standards by refining and adding to existing guidance used to demonstrate fire risk assessor competencies. This has been extended to produce a general benchmark standard for all fire risk assessors. The overall intent is to provide a practical standard for wide market implementation.

Based upon criteria at three core levels, from career entrant to supervisor, and reflecting in part-established regulated awards in fire risk assessment, the standard will professionalise a deliberately unregulated area of critical safety.

The standard will also offer the public, who are often confused by the current multitude of discretionary qualifications, an informed insight in their selection process to find a fire risk assessor by setting common parameters that allow fire risk assessors to be identified as to their suitability to assess different buildings.

Supporting and assisting the fire sector as it seeks to build training and verification processes designed to create these demonstrable competency standards will ultimately help those with legal responsibilities in buildings to navigate the critical issue of fire safety.

The fire sector has and will continue to support government as it builds the new safety regimes by using its internal expertise and operating in a mutually supportive way. For example, government working to resolve the insurance conundrum for general fire risk assessment is seen as a positive way forward to face and resolve collective challenges.

OUR IMMEDIATE ACTIONS

Accepting this is a living programme of action, The Fire Sector Strategy Board is focusing on four key priorities, progressing work groups that will develop detailed recommendations for adoption:

COMPETENCY

We will continue our drive to raise standards and further professionalise the fire sector through continuing engagement in national initiatives such as those relating to fire safety installations and fire risk assessment.

VOLUMETRIC MANUFACTURED OFF-SITE MODULAR BUILDINGS

Work will commence to better understand and direct action towards improving the use of volumetric building techniques which are now such an important part of driving the new homes agenda.

MASS TIMBER BUILDINGS

There is global understanding of the limitations and risk associated with mass timber use in buildings. However, as a relatively new phenomena in the UK, which has a distinct cultural tendency to avoid active fire protection, translating known lessons on performance into effective safer practice is the focus of this activity.

INNOVATIVE CONSTRUCTION

The speed of innovation in construction materials, practices, and methodologies, as highlighted, is high. Consequently, there is a need to maintain observation across an extremely wide spectrum of scientific manufacturing and advances in application within the construction industry. This group will try to help assess and assimilate any fire safety implications, raising concerns and seeking solutions by reporting developments at an early stage.



5 WAYS TO IMPROVE FIRE SAFETY IN BUILDINGS

RISK AND MITIGATION

Levels of protection against fire in all buildings should be determined by competent assessment of risks posed by the people, property type, and purpose for which the building is or will be used.

Fire protection measures should be determined from options provided in guidance and prescription, and applied proportionately to match the magnitude and consequences, including life, economic, cultural, and social considerations, of failing to mitigate the risk.

TAKING RESPONSIBILITY

The building owner must appoint a Responsible Person to be accountable on their behalf, to review, oversee, and determine the assessment and management of the identified fire risks throughout the whole life, from concept to demolition, of the building.

No person shall be permitted to work on matters affecting fire safety unless competent for those tasks by having an appropriate combination of skills, knowledge, and experience, together with a personal commitment to behave ethically and professionally.

STRATEGY AND STANDARDS

Every building should have a written fire safety strategy from design, during development, and construction to be maintained throughout occupation that provides an audit trail capable of tracking all changes, work, additions, and updates made.

All designs, materials, products, and building processes that have the potential to affect fire safety must be fit for the intended purpose, demonstrate reference to recognised, relevant, and applicable standards in the UK regulatory system (i.e. BS, BS EN, or BS EN ISO designated standards and recognised industry best practice standards).

CHANGE AND HANDOVER

Periodic assurance reviews should be undertaken during construction to completion and all changes accepted and authorised by the Principal Designer and Principal Contractor together with other appropriate competent engineers, fire risk assessors etc., and the Responsible Person acting for the building owner. Changes must be recorded to ensure the fire safety integrity as originally specified and approved.

No building should be occupied or transferred for occupation unless a handover certificate and the fire safety strategy document has been formally accepted by the Responsible Person for the building owner.

CONFIDENCE

The loss of 72 lives in the Grenfell Tower fire seriously questioned fire safety performance in all buildings. The ongoing formal inquiry, the published report on building safety, and the consequent regime change and professional reviews of competence, all seek to prevent reoccurrence and rebuild confidence. Introducing increased resilience of UK building stock is multifaceted and complex.

It must also be recognised that there remain many wider challenges, like greater insurability at affordable cost, and creating the right appetite within sectors like construction and property insurance, which are crucial to welcoming a more visible, vibrant, and proactive fire safety strategy.

Having the right arrangements in place is how to best restore fire safety confidence.

WHAT IS FIRE SAFETY?

Fire safety, especially in buildings, is dependent upon being focused on prevention and control from inception until closure, or in the case of a building: demolition. There is not one type of fire safety to 'fit all buildings'. Solutions are needed that reflect the lessons learnt on high-rise residential buildings and can face ever-evolving challenges from construction methods and materials.

Fire safety practice and technologies are well established. Attending to the core requirements and the application of well-known mitigation measures and precautions is crucial and six fundamental principles, when taken together, underpin all fire safety considerations. The core principles are:

FIRST

Successful fire safety is determined by giving specific attention to concerns for life, property, occupants, and purpose.

SECOND

All persons making decisions, determining policies, and taking actions which may affect fire safety must accept individual responsibility for their role and actions, behaving with integrity to support a culture of placing safety first that is exercised within the limits of their personal competency, with further professional assistance sought if exceeded.

THIRD

Levels of protection should be proportionate to the risks applying in each case, using best practice, recommended guidance and prescriptive controls according to the law and magnitude of the risk presented to life, community, and economic wellbeing, or likely in recognition of the consequences of failing to counter those risks.

FOURTH

Designs, components, materials, products, building processes, and systems must be fit for the required purpose and properly validated and or accredited for the intended use, and preferably backed with independent testing.

FIFTH

A written fire safety strategy, with a plan that details all building work and integral fire safety processes must exist that will allow a 'certificate of completion' to be issued when the works are satisfactorily completed according to the plan. No building should be handed over to the owners, or clients, or be occupied without an appropriate and valid completion certificate accompanied by the background material used to assess completion including 'as built plans' etc., which must be maintained up to date.

SIXTH

Those who occupy, live, or work in the building, or use hazardous processes, shall have a right to formally review and challenge the fire safety measures with those responsible for all those measures when a building or process is in use.

ABOUT

The Fire Sector Federation Fire Sector Strategy Board was formed out of a recognition that measures beyond the current raft of new legislation will be required to effectively control and mitigate the risks from fire in our society with support from beyond the fire sector.

BOARD MEMBERSHIP

A wide range of recognised leaders and experts on fire safety from across the sector:

- Jonathan O'Neill – Policy and Strategy Lead, Fire Sector Federation
- Michael Harper – Chair, Fire Sector Federation
- John Spencer – Vice Chair, Fire Sector Federation
- Dennis Davis – Executive Director, Fire Sector Federation
- Tom Roche – Suppression Lead, Fire Sector Federation
- Chris Miles – Chair, Association for Specialist Fire Protection
- Martin Wilson – Chair, Fire Industry Association
- Ian Moore – Chief Executive, Fire Industry Association
- Nick Tilley – Property Technical Risk Manager, AXA Insurance
- Peter Keates – Executive Director, Local Authority Building Control
- Adam Turk – Chair, Construction Products Association Marketing Integrity Group
- Steve Hamm – Chief Executive, Institution of Fire Engineers
- Phil Loach – Vice Chair, National Fire Chiefs Council
- Graham Watts – Chief Executive, Construction Industry Council
- Amanda Long – Chief Executive, Building a Safer Future
- Gary Strong – Building Standards Director, Royal Institution of Chartered Surveyors

VISION

A singular voice to assist in the management of fire risk and achieve a safer and sustainable society.

MISSION

To improve UK fire safety.

Our current emphasis concerns the built environment where a comprehensive oversight of the holistic process, from inception through design, specification, construction, maintenance, use and ultimately removal, is required. Competency, resilience, sustainability, and accountability are all features, as are the detailed challenges on construction methods and products; where the need for a better understanding of how building designs, methods of construction, products, and assemblies will perform in fire. Our intent is to unify and coordinate knowledge to gain advantage and improve performance for everyone's benefit.

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