White Paper

A Response to the Independent Review of Building Regulations and Fire Safety

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Introduction

The Grenfell Tower fire was a tragedy; one that sent a clear message that our current approach to fire safety in residential buildings is not functioning as intended.

Several investigations and inquiries have tried to determine what failings there are and how best to fix them. However, as more experts have commented it has become clear that there is no single change in either government regulations or industry practice that will solve the problem. Rather, there needs to be a new, holistic approach to fire safety.

As Dame Judith Hackitt wrote in her Independent Review of Building Regulations and Fire Safety, "a culture change is required to support the delivery of buildings that are safe, both now and in the future."

ASSA ABLOY UK wholeheartedly supports this view, and, in this paper, we aim to provide our own insight into what changes need to be made in terms of design, attitudes, training, certification and the products used, with respect to our specialist area of expertise – fire doors, one of the most important and effective elements of a building's passive fire protection.

"It is particularly the case that in single stair high-rise residential buildings such failures [of fire doors] cannot be tolerated, due to the Stay Put strategy.

"In my professional opinion, fire doors that do not provide the necessary fire performance do pose a risk to life."

Dr Barbara Lane, Grenfell Tower – fire safety investigation

The Scope of the Review

ASSA ABLOY UK recognises that many of the recommendations made within the review are necessary for improving building safety and addressing the lack of testing, standards and product performance. We believe this is a step in the right direction and support the underlying principles of the report.

In the future, we would like to see the scope of these recommendations extended. Fire safety should be regarded with critical importance across all building types.

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The review mentions the possibility of widening the scope of the framework "in due course" to encompass a wider set of residential buildings. This is where it feels proportionate to do so and the recommendation will clearly benefit building standards more broadly.

ASSA ABLOY UK would welcome institutions and other buildings used as living accommodation where people sleep, such as care homes and hospitals, being included in changes to fire safety regulations.

The report and suggested new framework specifically refers to buildings over 10 storeys, there is recognition that other multi-occupancy residential buildings, such as blocks of flats under 10 storeys, where the Fire Safety Order already applies, should eventually be covered by this review.

Following Design & Specification

The performance of all equipment, no matter its use, depends on it being correctly specified, installed and maintained. This is particularly vital in the case of safety equipment, where the consequences of failure can be deadly.

The fire safety investigation into the Grenfell Tower fire found that many of the fire doors installed in the building "could not function as [...] required," allowing smoke and flames to spread faster and more intensely than expected. Compartmentation has been highlighted as a key reason for the failures at Grenfell. Fire doors intended to stop and slow down the spread of fire were not performing as designed, due to failures in hardware specification and lack of fire door inspections.

There were several reasons for these failures. For example, the doors recovered after the disaster were found to be fitted with untested metal fittings that significantly affect their ability to resist fire, and some of them were fitted with glazing not included in the relevant test evidence.

However, even if these problems had not been present, none of the doors found at the site are believed to have been in line with current guidance, which suggests that fire doors used in a building such as Grenfell Tower should be able to provide at least 30 minutes integrity. This could also be due to product substitutions, as the original specified door may have met the 30 minute fire test. The fire safety report concluded that "all the flat entrance fire doors [...] were non-compliant with the fire test evidence relied upon at the time of the installation."

These failures highlight the importance of not only ensuring that specifications are fit for purpose, but also ensuring that they are implemented correctly when a building is designed, when it is built and when it is being maintained.

[1] Grenfell Tower — fire safety investigation, section 2.21.23

[2] Grenfell Tower — fire safety investigation, section 2.21.11

[3] Building a Safer Future – Independent Review of Building Regulations and Fire Safety: Final Report, pp.11

Why Are Specifications Not Followed?

In her independent review, Dame Judith Hackitt noted that "the roles and responsibilities of those procuring, designing, constructing and maintaining buildings are unclear."

This lack of clarity can cause specifications to be overlooked or outright ignored; those acting at each stage assume that it is someone else's responsibility to ensure that everything is being done correctly. In many cases, the lack of information, understanding and clarity being passed on means that companies and individuals working on a building may not even be aware of the necessary details.

To add to this, the current systems for ensuring compliance with these failings are both weak and complex.

For example, while current regulations demand that commercial and social housing be fitted with fire doors, government oversight ends the very moment installation is complete. At a national level we currently have no rules for the mandatory inspection of fire doors by a qualified inspector or retained maintenance, repairs or replacement records by a qualified engineer where applicable. The RRO is also unclear with regard to the responsibilities of individually 'owned' doors within mixed use properties.

The same can be said of Approved Document B, whilst this building regulation ensures all products meet a combustibility grade of A2, meaning limited combustibility, the standard falls short because of lack of reinforcement and inspection. Under the 'approved inspector' regime, it is not necessary for Local Authorities to sign off and check work, enabling contractors to use their own inspectors.

How Can We Ensure Specifications Are Followed in The Future?

The independent review has put together several recommendations designed to close the gaps that specifications so often fall through. The first of these is the creation of a new regulatory framework for oversight of high risk residential buildings, as well a Joint Competent Authority (JCA), comprising Local Authority Building Control, fire and rescue authorities and the Health and Safety Executive (HSE), that will oversee better management of safety risks in these buildings across their entire life cycle.

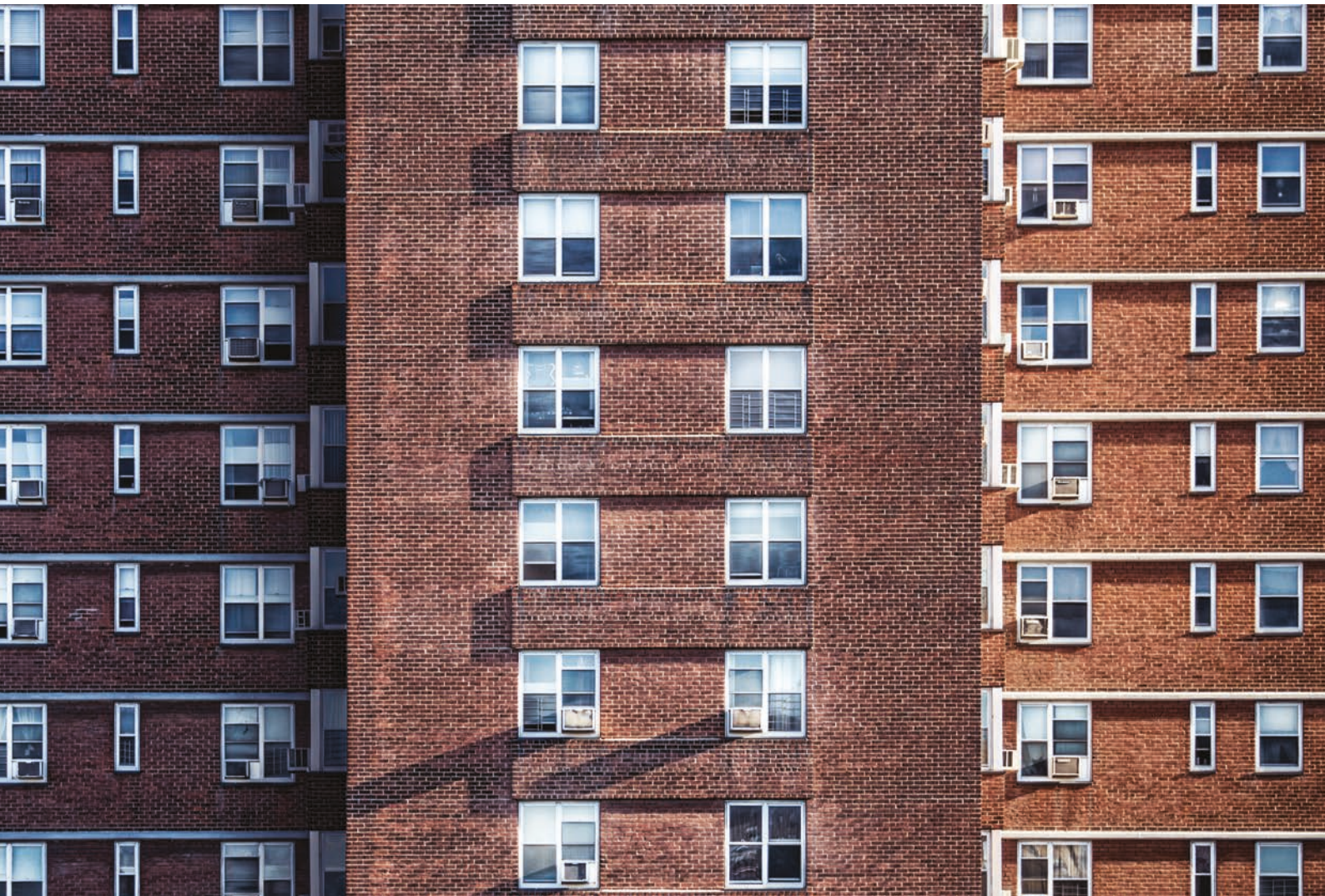
The review also calls for products, which are critical to building safety (of HRRBs) to be subject to independent third party certification. This will ensure the products installed meet the performance requirements set out in the initial specification.

ASSA ABLOY UK supports these recommendations, though there is a need for more detail around them and a clear plan on how any changes to existing regulations will be enforced. We also believe that third party certification for safety critical products could be used to ensure both consistency and competency within the JCA.

Beyond this, one of the clearest ways to ensure that specifications are followed is through the sharing of information. We believe that data sharing through digital test records for fire doors, as well as the widespread adoption of Building Information Modeling (BIM), will form an important part of this improved communication.

It is also vital that building regulations reflect the latest standards, as currently they are only reviewed every five years and may not reflect advances in technology and best practice. Product standards should be made more flexible and be updated regularly, in line with the outcomes based model a less prescriptive approach but one that still requires ownership of solutions.

Finally, we believe that certified doorsets should be sold as complete systems or that where the door and door components are from separate suppliers then there should be an audit trail to prove compliance and performance at every stage. This will both reduce the complexity of regulations, and make its intended use much clearer to installers.



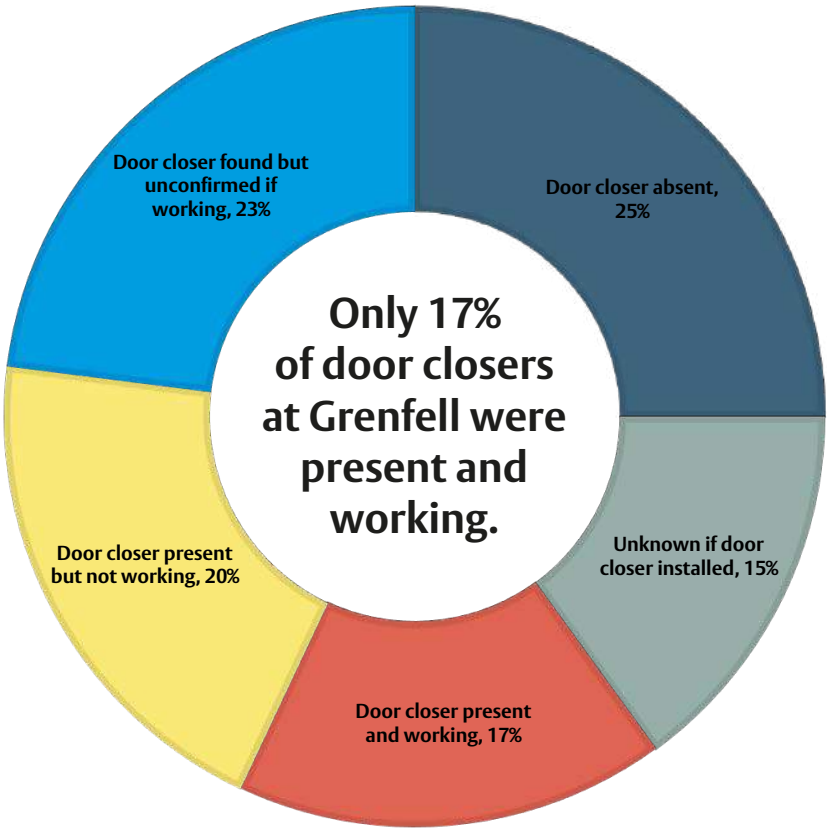
Changing Attitudes

One of the biggest targets for improving fire safety is the need to change the culture that surrounds it. The need for this is clear when you look over reports into the Grenfell fire, where many small shortcomings such as incorrect glazing installed in fire doors and self-closing mechanisms that failed to work.

The independent review noted that under the current culture there is a "lack of expectation for building safety to be proactively maintained over the building life cycle and for residents to be meaningfully involved." This can result in poor record-keeping for vital safety tests, inadequate maintenance and the incorrect use of equipment, such as when fire doors are regularly left propped or wedged open.

These seemingly small acts have a profound impact on fire safety. The draft report produced by BRE Global on behalf of the Metropolitan Police, highlighted that the lack of door closers (see diagram) on front doors to flats resulted in a significant number of doors being left open as people fled the building, allowing the fire to spread more quickly, with devastating consequences. In fact, only 17% of door closers at Grenfell were present and working. The lack of door closers and working door closers, caused a shortcoming in compartmentation, which ultimately affected residents' life chances, as they tried to escape the building. Door closers and other hardware, which impacts on the performance of a fire door or doorset are a critical part of fire safety and should be subject to performance standards and regular maintenance and testing.

If we are to eliminate these failings in the future, there are two aspects of the safety culture that need to be changed. The first is the lack of direct responsibility for overseeing regulations, while the second is the lack of engagement in fire safety from the communities living in and using residential buildings.



How Can We Start Changing Attitudes?

One of the failings of the current fire safety culture is that the responsibility of ensuring that regulations are being correctly followed is spread over several groups and individuals.

In order to avoid this, the independent review has recommended that this overlap of regulations and responsibilities be replaced by a requirement for a building's owner or superior landlord to be appointed as the duty holder. This would place them in overall responsibility for all parts of a HRRB and require them to inform residents about the fire strategy.

The JCA would then be empowered to inspect the entire building and take action as required, with the duty holder acting as a single point of contact.

As well as ensuring that equipment is working as intended, the duty holder would also provide residents with a route for raising concerns and help to encourage them to work together to make their shared building a safe place to live.

ASSA ABLOY UK believes that the appointment of a Building Safety Manager, combined with open dialogue with residents, will ensure that fire safety is an ongoing commitment and the responsibility of all building users.

We also recommend that the importance of fire doors, and of their correct use, is made a priority when sharing information with residents. In particular, residents should be made aware of the importance of working self-closers on all fire doors.

Improving Training & Certification

The main, and critical, suggested change to certification in the independent review is the "testing of products that are critical to the safety of HRRB's should be subject to independent third party certification." ASSA ABLOY UK fully supports this and believes it is fundamental to improving the safety of buildings. Testing and certification of all products that can impact on fire safety should be mandatory and through independent, third party testing, this process can be audited and maintained to the highest standards.

It is also clear that many aspects of fire safety depend on individuals being well-trained for their roles. As well as ensuring that the training that government and industry bodies provide is up to standard, it is also vital that certification and inspection schemes can confirm that these skills are in place and correct them where they are not. It should also be noted that whilst there are mandatory safety inspections in place for electrical products, safety inspections for installed fire doors and their subsequent maintenance is still not enforced. Currently, the testing is required to be carried out by a 'responsible person' not a qualified professional, and as the records are not policed, subsequent inspections are not mandatory or followed up. The testing of complete doorsets or doorset components is mandatory but this is carried out before installation and evidence is not required until after the installation and at the point of building handover, by which time it is often too late to address any concerns with performance. Fines for late building completion may encourage this stage to be overlooked or rushed through. Therefore safety inspections on installed doorsets and an ongoing performance assessment should be compulsory and carried out by certified inspectors.

The suggestion by the independent review of a revision to British Standards to determine how and when such product assessments should be used is insufficient. Full certification should be mandatory across all fire safety products in all circumstances.

However, interim reports into the state of the fire safety industry have established that there is "a lack of skills, knowledge and experience and a lack of any formal process for assuring the skills of those engaged at every stage of the life cycle of HRRBs."

The reports have identified several causes for these shortfalls, including a highly fragmented approach to training and competence that means that while individuals are highly skilled in their own discipline, they may lack knowledge of how their own area can impact those that to interact with them.

The lack of a single coherent approach to training, competence and certification was also raised as a potential issue. Simply put, the sheer range of professional qualifications can make requirements and the distinctions between them difficult to understand.

[4] Building a Safer Future – Independent Review of Building Regulations and Fire Safety: Final Report, pp.45

How Can We Improve Training & Certification?

As with questions of improving specification and inspection of buildings and equipment, recommendations for improving competence and certification call for greater oversight and well-defined responsibility.

For this reason, the independent review has suggested the creation of an overarching body that can provide oversight for competence requirements for people working on HRRBs. These would be fed into by existing professional and accreditation bodies.

ASSA ABLOY UK agrees with the note that training and formal accreditation of skills "can and should be led by those industry bodies which cover the sectors and roles involved in building work." However, we also agree that greater importance and responsibility must be given to third-party bodies, such as the one proposed by the independent review.

We agree with the independent review that products that are critical to the safety of HRRBs, such as doorsets, should also be subject to periodic retesting.

We also support the DHF trade body in its recent call for mandatory third-party certification of companies manufacturing, installing or repairing fire resisting doorsets.

"While there are many competent people working within the system, the lack of a coherent and comprehensive approach to competence can seriously compromise the fire safety of HRRBs."

Judith Hackitt, Independent Review of Building Regulations and Fire Safety

Impact on Products

As noted earlier on in this report, many of the fire safety products used in Grenfell tower were found to have not performed as they should. The fire safety investigation into the disaster noted that "fire doors containing multiple additional fixtures and fittings, unless expressly constructed and fire tested to prove their viability, […] pose a serious risk of failure."

In fact, a BRE draft report shows that only 17% of the door closers installed at Grenfell were present and working and nearly 50% were not working, demonstrating the importance of fire safety product performing as required.

This creates a clear need for these products to not only be manufactured and produced to the highest standards, but also installed and used correctly.

While this may appear to be a straight-forward goal, the current systems covering product testing, labeling and marketing are deeply complicated, with many different standards and assurances of quality overlapping.

Achieving this therefore requires tighter regulation on the quality and performance of fire safety products used in HRRBs, as well as ongoing inspection and performance guarantees and certification.

This will partly be covered by the recommendation that all critical fire safety products are subject to independent third party testing and certification.

Another area linked to this is that of supply and procurement. Here, the independent review notes that there is a "lack of clear roles and responsibilities, [as well as] ambiguous regulations and guidance." This can lead to a drive towards achieving the lowest cost solutions, which can result in products not working as expected, compromising safety.

One example of this is the substitution of certified fittings designed to work with fire doors for cheaper alternatives, that limit the door's overall performance.

How Can We Improve Product Quality and Performance?

To support the recommendation that safety critical products should be certified the independent review has called for "a more effective testing regime with clearer labeling and product traceability, including a periodic review process of test methods and the range of standards in order to drive continuous improvement and higher performance." This is in addition to the need for third party certification and testing on all fire safety critical products.

ASSA ABLOY UK supports this proposal, and believes that our long-standing fire door inspection service (see below) serves as an example of an already-existing, high-quality industry scheme. The service is performed by BRE-certified inspections, which ensures that it is carried out by a competent, trained individual that is guaranteed to be up-to-date with all standards and regulations.

Alongside this, each of our doorsets are marked and given a unique reference, and digital record allowing them to be easily traced.

When discussing standards, it is also important to recognise that there is a need for any new product standards to be flexible and agile enough to adapt to the changing needs of buildings, construction processes and product developments. Regular updates, rather than full revisions, should be implemented to ensure standards are fit for purpose and reflect the current social and physical landscape.

We believe that a move towards whole-life costing during the procurement process will make it harder for builders and engineers to substitute in substandard products, as it will include the expense of the higher-quality, certified fittings and equipment.

We also support the independent review's recommendation that this move towards increased testing be supported by the certification of more test houses, rather than simply expanding capacity of existing facilities. This could be supported by having manufacturers set up their own certified test houses. This would encourage an auditable certification trail, as well as providing a quick and effective way to implement the suggested changes to certification.

ASSA ABLOY Security Doors Fire Door Inspection Services

We have over 20 years experience in manufacturing fire doors and now offer comprehensive fire door inspections by BRE-certified professionals, in line with others available on the market. These form a vital part of ensuring the quality of our product, and that it is being used correctly. The inspection includes:

- The identification of any potential issues that may impact performance
- A detailed report, offering advice and recommendations on the necessary improvements that need to be made
- A repair proposal which can include replacement doors and a regular maintenance program
- Our team of inspectors are BRE-certified and will ensure that all fire doors inspected meet all of the necessary standards and regulations

Recommendations for fire door testing

- Fire Door Safety Inspection providers should be audited in line with other professional testing facilities and schemes, such as UKAS labs.
- Fire door testing and training schemes should be accredited and audited to avoid any confusion in the market over which scheme to choose and to demonstrate compliance.
- If fire door inspections are to remain voluntary, the should at least be accredited but ultimately mandatory inspections are the only way to ensure safety.
- Approved and certified training is needed to better interpret and ensure compliance with standards.
- Standards need to be more agile to adapt to the changing building types and methods of construction. It is vital that standards can quickly and effectively incorporate feedback from those working with and adhering to building regulations.

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