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National Fire
Chiefs Council

The professional voice of the
UK Fire & Rescue Service

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Assessment in Lieu of Test Consultation
Building Safety and Energy Performance Division
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Sent via email to: buildingregsteam@communities.gsi.gov.uk

24 May 2018

To the Building Safety and Energy Performance Division,

Please find attached the National Fire Chiefs Council (NFCC) response to the consultation paper '*Amendments to statutory guidance on assessments in lieu of test in Approved Document B (Fire Safety)*'.

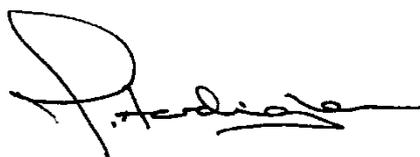
The NFCC is the professional voice of the UK fire and rescue services, and is comprised of a council of UK Chief Fire Officers. This submission was put together through the NFCC's Protection and Business Safety Committee, which I Chair. The Committee is comprised of protection and fire safety specialists from across the UK. All fire and rescue services in the UK have been consulted on this response.

In the wake of the fire at Grenfell Tower, it is vital that we use this time to reflect and examine the shortcomings that contributed to the terrible events of 14 June. The NFCC has welcomed the recommendation made by Dame Judith Hackitt to significantly restrict the use of desktop studies to approve changes to cladding and other systems, and the NFCC welcomes the opportunity to consult now on this important area.

In this submission, the NFCC is not advocating to ban assessments in lieu of tests (either extended application or engineered approaches). We believe that these can have a place in the framework, when used appropriately. However, what I hope this response makes clear is that the changes proposed by this consultation today are not sufficiently robust to address the issues identified, and should not be the only measures taken.

We would like to see the aims expressed by Dame Judith achieved – as Dame Judith has underlined, banning things is no guarantee that people will follow the rules. The NFCC would like to see changes which would ensure that only competent people are making decisions about building safety. What we strongly advocate is that significant steps must be taken to ensure that these assessments are carried out appropriately. The attached submission contains a number of suggestions for how this could be achieved.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M. Hardingham', with a large, stylized initial 'M'.

Mark Hardingham

NFCC Protection and Business Safety Committee Chair



Approved Document B Consultation

Amendments to statutory guidance on assessments in lieu of test in Approved Document B (Fire Safety)

National Fire Chiefs Council response to consultation by the Ministry of Housing,
Communities and Local Government

Executive summary

Assessments in lieu of tests, also known by the colloquial term “desktop studies” are used to describe an assessment of a material, product or system. This can include different types of assessments, some of which are undertaken proficiently and some which are not. It is important to note that these assessments are not only confined to cladding materials and external façade products, which are clearly a focus of attention at the moment, but to a wide range of fire safety products (for example, fire dampers).

NFCC’s view is that the use of well-prepared assessments in lieu of tests with direct reference to primary test evidence (i.e. extended application and classification report) have a legitimate place within fire safety design. Similarly, we are of the view that well informed engineering judgements (i.e. engineered approach) have an important role in the building regulations regime in the UK, and consider there might have been benefit in this consultation covering both.

Assessments in lieu of tests are, in some circumstances, a practical and proportionate step to adapt test results to the specific design of a building. The key objective should be to ensure the analysis is undertaken and applied correctly and that poor practice leading to dangerous solutions is eliminated.

We have serious concerns about how both of these types of assessments have been undertaken and been relied upon in the past. To prevent this in the future there is a clear need for:

- A high level of competency and ethical behaviour by those carrying out the tests;
- Strict controls on the application of these assessments and detailed accompanying guidance; and;
- A regime which applies sanctions to those who do not comply with them.

The overarching principles should be that the controls, guidance and sanctions prevent assessments in lieu of tests based on unsubstantiated opinion or conjecture. These should be applied to both extended application, with their accompanying classification report, and the engineered approach.

If poor practice is eliminated, and the analysis is undertaken correctly in accordance with appropriate standards / guidance and the system is installed accordingly, we believe that it

will be demonstrated that these assessments can be used safely. We further believe that a ban itself may lead to, or encourage poor practice – for example where products are potentially substituted without fully understanding the system and the impact on the building. We suggest the focus should be on ensuring the system eliminates bad practice and holds to account those who do not undertake assessments appropriately.

Foreword

For clarity, we note that assessments in lieu of tests, also known by the colloquial term “desktop studies”, commonly refer to two different types of assessment:

- Extended application and classification report – which should only be based on existing test results in lieu of a fire test (for example BS 8414/BR135 for external façades), whereby an analysis of test(s) results is carried out to determine whether it is possible to replace one product with another without negatively affecting the expected performance of such a test and demonstrate that it achieves the appropriate classification; and;
- Engineered approach - studies of the overall fire safety provisions in a building relying on fire engineering opinions and appropriate technical analysis. These may have also been referenced as ‘fire engineering studies’ which is an approach considered by Approved Document B and British Standards such as the BS 7974 *Application of fire safety engineering principles to the design of buildings - Code of practice*. The engineering approach should be a holistic assessment of fire safety for the building.

It is important to note that assessments in lieu of tests are not only confined to cladding materials and external façade products, which are clearly a focus of attention at the moment, but to a wide range of products used during construction for fire safety products.

These two types of assessments should be the only two assessments in lieu of tests which should be permitted. It is apparent to the NFCC that there is a lack of clarity amongst industry professionals with regards to the remit of each of these assessment methods.

These are two very different assessments, both of which need to be strictly regulated, only carried out by individuals with a high level of competence and be under significant control and oversight in a regime which includes sanctions for non-compliance.

For this reason, the NFCC has welcomed the recommendations made previously by Dame Judith Hackitt to significantly *restrict the use of* such tests to approve changes to cladding and other systems.

This consultation is mainly proposing text changes to Approved Document B in relation to extended application with their accompanying classification report, not to the engineered approach. We believe that steps should be taken to ensure that the engineered approach is not used as a way to widen the limitations placed by new standards for extended application.

The engineered approach should be equally considered, to determine when it is appropriate or not, and how can it be better regulated. For example, if there is a small amount of decorative combustible façade which does not breach compartmentation and/or does not interact with an escape route then an appropriate engineering analysis should be able to adequately consider this.

NFCC does not advocate the banning of assessments in lieu of tests (either extended application or engineered approach) but strongly advocate that significant steps be taken to ensure that they are carried out in a defined number of cases, by competent individuals who are appropriately supervised, with sufficient level of competent oversight and for extended application, to be based on reliable and available test evidence of the performance of a product.

NFCC also believes that banning assessments in lieu of tests for all product types may create an unnecessary burden on new development as well as inhibit innovation. Carrying out testing is a time consuming and expensive process which can currently only be done by a small number of organisations and which in itself may not provide the adaptability to necessary changes during design and construction. Assessments in lieu of tests are, in some circumstances, a practical and proportionate step to adapt test results to the specific design and construction of a building. The key objective should be to ensure the analysis is undertaken and applied correctly.

This approach would require considerable coordination and leadership in the form of Government policy. The changes proposed in the MHCLG consultation alone do not provide sufficient safeguards to ensure assessments in lieu of tests are carried out and used properly.

Sufficient safeguards would include:

A high level of competency and ethical behaviour

- We want to see steps to ensure that the overall competence of each organisation involved in assessments in lieu of tests is controlled, and that high levels of competence are maintained.
- NFCC believe that the proposed changes in the consultation provide a potential overall improvement. However, we believe that competence of the individual(s) carrying out the analyses is also critical to the outcome. Steps must be taken to ensure that the person undertaking the analysis and the person checking the result/conclusions of the analysis have a minimum level of knowledge, qualifications and experience – these levels should be set and provided as a definition of competence.
- In addition, steps should be taken to ensure that ethical behaviour is promoted and maintained. We would welcome further guidance on competency and ethical behaviour for organisations and individuals undertaking these assessments in lieu of tests, including guidance on whistleblowing.

Strict controls on the application of assessments in lieu of tests and detailed accompanying guidance

- Where fire safety products are substituted during construction, the substitute materials must be reassessed against all relevant regulations and this should be considered by the Building Control Body, and where appropriate this should be notified to the fire and rescue service.
- Every extended application should rely on specific test evidence which should be made available in the report produced as a result of the analysis, and to any party reviewing the assessments in lieu of tests. A third party review of all assessments in lieu of tests should be required to assist the Building Control Body in their decision. Third party reviews would need to be carried out by an independent and competent person. The test evidence should be made available during the review process.

- Steps should be taken to ensure that all products are installed as per the limitation of the assessment. Further assessment and or testing may be required if site constraints did not allow the product to be used in the appropriate configuration.
- An important step of any construction project is the handover of all the fire safety information on completion to the responsible person - this is required under Regulation 38 of the Building Regulations 2010. It is critical that any assessments in lieu of tests used in the construction of a building should also be included in this package of information, and that the Building Control Body should enforce this. It would also be beneficial if the Building Control Body were required to keep records of any assessments in lieu of tests.

A regime which applies sanctions to those who do not comply.

- In the current system there is no clear mechanism to ensure that assessments in lieu of tests are competently undertaken, other than on a project by project basis. If assessments in lieu of tests are to be acceptable under certain circumstances, they need to be adequately controlled by meaningful enforcement powers. This would require a competent authority (which would likely be separate from the Building Control Body) to provide oversight, supported by appropriate sanctions.
- There should be an enforceable requirement for a final inspection of a completed building by a competent assessor to ensure that in all cases the products assessed (and approved by the relevant body) are the ones installed, and that they are installed as per the strict limitation(s) of the assessments in lieu of tests.

As set out in the MHCLG consultation document, the Government response will also take into account findings and recommendations made by Dame Judith Hackitt's final report on the Building Regulations and Fire Safety system. NFCC therefore make reference to our submission to the call for evidence for the independent review of building regulations and fire safety in October 2017 and ask it be considered in conjunction with this response¹.

Introduction

The following paragraphs provide the NFCC response and commentary about each of the questions raised in the MHCLG consultation. These are summarised in the executive summary above.

Question 3

Do you agree with the recommendation in Dame Judith Hackitt's interim report to restrict the use of desktop studies to ensure that they are only used where appropriate and with sufficient, relevant test evidence by people with suitable competence?

Yes

¹

https://www.nationalfirechiefs.org.uk/write/MediaUploads/Grenfell/NFCC_Submission_review_building_regs_final.pdf

NFCC supports the recommendation of Dame Judith Hackitt's interim report published in December 2017 as part of the independent review into Building Regulations and Fire Safety. We believe that assessments in lieu of tests do have a place in the current legal framework as they allow the necessary flexibility to support the functional nature of the Building Regulations – but they must be carried out by competent individuals and appropriately regulated.

In our view, the changes proposed to Approved Document B (Appendix A) in isolation are not sufficiently robust to address the issue, and should not be the only measures taken to ensure that the aim expressed by Dame Judith Hackitt's review is achieved.

To tackle the issue additional action/changes/measures must be undertaken within the industry supported by the appropriate regulatory bodies, and further guidance is required. The appropriate competent authority could be one of the parties already involved in the process, or a new authority. We believe that a newly formed authority would have significant benefit.

Additional guidance needs to include:

- The author and reviewer's technical competence to undertake the assessment; and
- The differences between the tests and the onsite build – i.e. how the closing around windows/vents etc. are detailed and constructed; and
- How any variances after the assessment are dealt with – i.e. re-assessment.

For example, we welcome the reference to BS EN 15725 as it provides some guidelines for best practice. It must however be noted that although not referenced in Approved Document B, this guidance has been available since 2010. The fact that this guidance is not widely referenced and used by those undertaking extended application highlights a clear need for oversight of these studies.

The legal framework should be updated to guarantee that there are robust control and enforcement measures. Roles and responsibilities must be appropriately distributed such that it ensures that industry best practice and appropriate standards are upheld in the long term.

Question 4

Do you agree with the proposed amendment to the text on how to undertake an assessment in lieu of test as outlined in Annex A?

Yes

We agree with the proposed change however the proposed text would benefit from being written in plain English to provide additional clarity. These should be restricted to three possibilities:

- A direct test report; whereby the system installed is the same as to the system tests (A1 a.); or
- A classification report based on a strict extended application; whereby the system designed is assessed to have variations permitted by an extended application standard. (A1 b.) It is our opinion that classification report should only be based on extended application and test evidence; or

- A fire engineering assessment; whereby a holistic review of the fire safety provisions is carried out (A1 c.). As discussed above, further guidance is required on this type of assessment in lieu of test.

These should however be tightly controlled and reviewed periodically to ensure that they are used as intended.

In addition, NFCC members have reviewed a number of assessments in lieu of test reports where extended application of results has been undertaken, and it is often the case that test reports referenced are not provided as part of the report. This creates potential complications in reviewing the report in terms of obtaining the necessary information to understand the limitations of the test. Test reports referenced, and or relied upon for the overall assessment conclusions, should be provided as part of the extended application and classification report.

Recent programmes of inspections of high-rise blocks where ACM cladding has been identified, have highlighted that all too often the information is not adequately recorded and passed onto the responsible person on building work completion. This leads to the data not being available for review when required.

The recording and handing over of the information is a critical step in the construction process. This step is already addressed under Regulation 38, however, NFCC members have reported that this is often not appropriately undertaken or appropriately enforced. Steps must be taken to ensure that this information is appropriately recorded and, most importantly, given to the responsible person after construction. There should be oversight of this and penalties applied for non-compliance with Regulation 38 (or any future requirements which may be put in place following implementation of proposals from Dame Judith Hackitt).

Question 5

Do you agree with the proposed amendment to the text on who is permitted to undertake an assessment in lieu of test as outlined in Annex A?

- No**

We recognise that the proposed changes reflect a step in the right direction. However, the competency to carry out assessments in lieu of tests relies on an individual's training, and experience, as well as the quality of the information available to them.

The text should be strengthened to require a minimum level of training and experience for the individuals. This could reflect, for example, the Passive Fire Protection guidance with a tiered approach including certified individuals and reviewer.

This could also be further enhanced by the creation of a competency and ethical behaviour framework for the industry to ensure that the highest levels of ethical conduct are maintained in the industry. We are aware that competency is a key issue already highlighted by Dame Judith Hackitt as part of her report, and as such must be considered as part of this consultation. Guidance is also needed to provide information for potential whistle blowers, and an appropriate system by which to raise concerns.

Question 6

Do you agree with the proposed amendment to the text on the circumstances under which an assessment in lieu of test may be carried out, as outlined in Annex A?

- Yes

We note and agree with the circumstances for which the assessment in lieu of test may be carried out. We would recommend that this is reviewed periodically to ensure that the amendment reflects current guidance and/ or available scientific knowledge.

Further industry consultation may be required to understand the limitations placed by the current list.

Question 7

Do you agree with the impact assessment? (Please see Annex B of the consultation document)

- Don't Know

Consideration should be given to publishing an impact assessment of a ban on assessments in lieu of tests. This would assist understanding the impact of such a change.

Question 8

The impact assessment is principally focused on external wall construction. Do you consider it will impact any other building features? If yes, please specify.

- Yes

The changes proposed will, in all likelihood, impact other materials used in buildings for fire safety purposes such as: fire stopping materials, for example: fire doors, collars, sleeves, fire and smoke dampers, etc.

Due consideration should be given to the impact on the use of these products. NFCC members have reviewed assessments in lieu of tests carried out for items such as fire dampers and other fire stopping products and have reported a varied quality of assessment. This broadly reflects the issues highlighted with the external wall construction - such as lack of transparency and reliance on test data, last minute replacement of products and deficiency in the appropriate installation of the products.

Question 9

Do you think that making this change will achieve the desired outcome expressed in Dame Judith Hackitt's interim recommendation?

No

As discussed previously we believe a more robust approach supported by appropriate guidance and sanctions is required to prevent assessments based on unsubstantiated opinion or conjecture.

In addition, many extended application reports include a statement that the results of the report will be superseded if new test evidence comes to light. Although we fully support the fact that test evidence should supersede extended application and classification report, a mechanism should be put in place to ensure that when this happens, the owner / Responsible Person of a building is informed of the change so that they can take appropriate action.

Question 10

Do you consider that the use of assessments in lieu of fire tests should be prohibited for all construction products?

No

We do not support an overall ban on the use of assessments in lieu of tests (extended application and engineering analysis) but advocate the introduction of controls, guidance and sanctions that prevent assessments based on unsubstantiated opinion or conjecture to ensure that bad practice is eliminated.

Question 11

Do you consider that the use of assessments in lieu of fire tests should be prohibited for wall systems tested to BS 8414?

No

If undertaken correctly, assessments in lieu of tests are appropriate, however more guidance is required considering the two types:

- Extended Application – work has commenced on an extended application standard (BS 9414) for the BS 8414 tests. NFCC understand that the LFB are part of the drafting committee for this. We believe using an extended application process should be the

- only way possible to demonstrate that a proposed arrangement is achieving the appropriate classification.
- Engineering assessment –further consideration should be given to the production of additional guidance for these.

Façade system design is a complex issue and BS 8414 tests provide important information with regards to the elemental performance of a system within their scope. In order to ensure that the functional objectives of the Building Regulations are achieved, a more holistic view of the full façade system (as installed) is required. This is because the BS 8414 tests only provide information on the elemental performance of the system, and in isolation the tests do not provide a holistic demonstration that the façade system achieves compliance with the functional requirement of the Building Regulations.

There are façade fire spread issues which are not covered by the BS 8414 series. For example, NFCC members have reported case studies showing that fires where balconies were involved have experienced rapid vertical fire spread. It is however very rare for the impact of balconies to be considered when assessing external fire spread. This vertical spread has also been recently noted in instances involving window spandrel panels.

The current focus is on external façade systems, but it is important to remember that assessments in lieu of tests are used for other fire safety elements. The right controls, guidance and sanctions around assessments would benefit all critical fire safety elements in a building. These measures should be applied for all construction products as from the experience of our members, similar issues for façade systems have been known in other construction products (e.g. fire damper installations).

Question 12

Do you have further comments?

Meeting the functional requirements of the Building Regulations is the minimum obligation of the designers. Prohibiting assessments in lieu of fire tests will not ensure these functional requirements are met. In fact, the opposite may be true as a 'ban' may lead to lesser understanding of the systems by diluting the expertise and experience.

If adopted, we believe that any proposal to ban assessments in lieu of fire tests would have to be carefully considered so that the ban itself did not negatively impact the safety of residents. For example, if the ban was strictly relating to extended application and classification report, this might allow poor fire safety practice which are not using appropriate engineering judgement. In addition, the ban may remove the incentive for design teams to improve systems which provide better performance in favour of tested but less robust systems.

If a blanket ban on assessments of façade systems in lieu of tests was introduced this would potentially remove the necessary focus for design teams to understand the impact of their decisions on achieving the functional requirements of the Building Regulations.

If a ban on assessment of a single material (e.g. ACM cladding) was introduced this would not address poor assessments considering other key aspects of a system (e.g. such as closures around windows or insulation materials).

Notwithstanding the technical arguments above we do not believe that a ban of the assessments in lieu of tests (including for façade systems) would be practicable and

reasonable. There is currently insufficient capacity in UKAS accredited testing houses to enable the necessary flexibility in the built environment. This was identified in the review undertaken by Dame Judith Hackitt.