

**FBU’s Written Opening Submissions for Module 2 of Phase 2**

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- 1) The FBU and the firefighters and Control staff we represent remain:
  - a) humbled by the suffering of the deceased and the bereaved, survivors and relatives of the deceased (BSRs) as a result of the Grenfell Tower disaster; and
  - b) committed to a full and open inquiry.
  
- 2) The documentary evidence disclosed for Module 1 and confirmed by the oral evidence given so far shows **widespread ignorance, neglect and/or complacent assumption** amongst those engaged in the construction of the rainscreen cladding system (“the RCS”) for the façades and crown of Grenfell Tower both of the increased fire hazards associated with the RCS, and of the relevant Building Regulations and guidance in Approved Document B (AD-B). It seems no-one involved in the construction project “**thought fire**”. It was always assumed to be someone else’s job, with the result that the increased fire risk of the RCS was almost completely overlooked. How did this situation arise? How can it be guarded against in future?
  
- 3) **In Module 2**, the FBU understands the Inquiry intends to undertake an investigation into the specific external wall materials used on Grenfell Tower. Specifically:
  - a) What relevant tests, if any, were carried out on each product?
  - b) What were the full circumstances of each of those tests?
  - c) How were the results of any such tests represented and/or used in the marketing of the products?
  - d) What relevant certification, if any, was held in respect of each product?
  - e) Was the technical content of all relevant certification accurate and/or appropriate?
  - f) On what evidential data (if any) was the technical content of each such certificate based?

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4) Dr Lane reported her opinion in section 11 of her main report {BLAR00000006} that the entire building envelope system was non-compliant with the functional requirements of B4 and B3 of the Building Regulations [11.21.13], that some of the cavity barriers used in GT were not classified for the required fire performance by ADB 2013 [11.21.9] and she listed the products the use of which was **fundamentally non-compliant** [@ sub-paras 8, 10, & 15] thereby providing a focus for Module 2:

- The rainscreen cladding panel Reynobond 55 PE Cassette (both types),
- The Aluglaze Styrofoam core insulating panels installed between the windows and by the kitchen extract vents,
- The Kingspan TP10 insulation specified for installation around the kitchen extract fans,
- The Celotex RS 5000 and Kingspan K15, and other Kooltherm products, thermal insulation attached to the original concrete wall,
- The Celotex and Kingspan polymeric insulation boards (e.g. Celotex TB4000 and Kingspan TP10) used to insulate the window reveals, and close the new cavity formed between the old and new infill panels between the windows, and
- The Siderise Lamatherm RH25G cavity barriers

5) Dr Lane has confronted the complexities and described the requirements of the Building Regulations and the guidance in AD-B, including the fire tests relating to a RCS, in Appendix F of her Phase 1 report {BLAS0000027}. She did so to provide “... *a detailed understanding of the requirement at the time of the Grenfell Tower Fire, and also to provide a basis for formulating future changes...*” saying “... *what is important now, is to remove any means for loose interpretation of fire safety requirements regarding external wall construction...*” [§F1.1.23].

6) Unfortunately the DCLG’s Note 4 in Annex B of ‘Government building safety programme — explanatory note’ issued after the Grenfell Tower fire has done just that: provided another means for loose interpretation by conflating the polyethylene core of the ACP panels with insulation materials by labelling it “filler material” and thereby applying the requirements in section 12.7 of AD-B (for insulation materials) instead section 12.6

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(external wall surfaces) [F6.4.1]. Dr Lane has explained the error of this approach {BLAS0000027 @ §F6.5.53}. The point is that AD-B has, for a long time before the GTD, needed wholesale review and revision, not piece-meal amendment, to provide the construction industry with useful guidance on how to meet the functional requirements of Regulations B3 and B4(1) and (2) when recladding existing high-rise residential buildings. The authors of Note 4 did not conquer the complexities of AD-B.

- 7) Neither did those involved in the refurbishment of GT. There must be a reason why the designers of the RCS at GT, including architects and cladding specialists, did not understand the relevant sections of the AD-B. Andrzej Kuszell did not reacquaint himself with Regulations B3 & B4 [6/24-25] and so could not supervise Bruce Sounes. Mr Sounes had not heard of the phrase ‘*limited combustibility*’ and could not recall if he was aware that buildings over 18m had different guidance [7/132-133]. He did not recall reading section 9 of Appendix B to AD-B during the GT project [7/134:11-22], did not know the potential routes to compliance under AD-B at the time of the GT project and could not confirm which route was actually followed [7/129-130]. Neil Crawford assumed it was the linear route – meaning sections 12.6 to 12.9 of AD-B [9/166-168], although he never discussed this with anyone [9/169:12-21]. Thomas Rek was not aware of the general principle (as stated at para. 6.6.2 of the CWCT Standard) that insulation in walls of buildings with a storey more than 18m above ground level should be of limited combustibility [12/38-39] and could not define a material of limited combustibility [12/39:7-19]. Kevin Lamb did not know what route to compliance was taken at GT [38/140-141]. He knew that insulation products needed to be Class 0 but did not know they had to be of limited combustibility [38/148-149].
- 8) Commensurate with this complexity, the testing and certification regime was mind boggling. Dr Lane describes a range of different testing methods that could be adopted to enable a material or product to be certified as passing either National Class standards (i.e. BS testing) or European standards and summarises them in several tables {BLAS0000027\_0037 & ff}. The Inquiry may find that this added layer of complexity deterred both the practitioners in the design team on the GT project and those responsible for enforcing the regulations from engaging with the documents, such as BRE 135, and led them instead to rely on the contradictory guidance in Diagram 40.

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- 9) The Inquiry may find the complexity of the guidance in AD-B, demonstrated by the misfired Note 4 published post Grenfell and the widespread ignorance of the design team on the GT project, contributed to the GTD itself. The existence of so many HRRBs with what is now recognized to be dangerous cladding up and down the country may support such a conclusion.
- 10) Dr Lane and her team have undertaken a wholesale review of the guidance in AD-B and Dr Lane has recommended a spate of revisions which in her opinion are needed {BLAS0000002\_0083 &ff}. The FBU asks the Inquiry to investigate, albeit in Module 6, whether this exercise should have happened after the fatal fire at Lakanal House.
- 11) **Public interest:** Central government has long recognised the public interest in understanding how building products react when exposed to fire, testing products with its own research arms (such as the Building Research Establishment (BRE) and regulating the use of building materials. After the Great Fire of London in 1666, the city was rebuilt in accordance with new building regulations requiring the use of stone and brick instead of wood.
- 12) The Chairman of the Panel has already confirmed this public interest. For the purposes of Module 2, the **key findings from the Chairman’s Phase 1 report** include:
- a) §23.25 “... *rapid horizontal and downwards spread of flame was a unique feature of this particular fire, which sets it apart from many other international fires and is an important factor in making the outcome so devastating in terms of the loss of human life. ...*”
- b) §23.52 “... *principal reason why the flames spread so rapidly up the building was the presence of the ACM panels with polyethylene cores ... the presence of PIR and phenolic foam insulation boards behind the ACM panels (and perhaps the EPDM membrane and the Aluglaze window infill panels) contributed to the rate and extent of vertical flame spread ... in the public interest to obtain a better understanding of how these materials behave in conjunction with each other when exposed to fire ...*”
- c) §23.61 “...*the Grenfell Tower fire was unusual in the way that it spread laterally and was able to envelop the entire building in under three hours...*”

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- d) §23.62 “...Professor Bisby and Professor Torero were at pains to emphasise its **complexity**, not so much in terms of its structure, as **in terms of the interactions between its various components when exposed to fire** ... In the next phase of the Inquiry I also intend to **investigate the extent to which those complexities were recognised and understood by those involved in the design of the refurbishment and the extent to which the current evaluation and testing regime is capable of ensuring that they are properly assessed...**”
- e) §26.4 “...requirement B4(1) was not met in this case ... whether one considers the rainscreen panels alone or the cladding system as a whole, or even the complete external envelope, including the original concrete structure, it is clear that the walls did not resist the spread of fire. On the contrary, they promoted it ...”
- f) §34.4 “...Since the primary cause of the rapid spread of fire up, around and down the building was the use of ACM rainscreen panels with a polyethylene core, to which the use of combustible insulation contributed, **the principal focus of Phase 2 will be on the decisions which led to the installation of a highly combustible cladding system on a high-rise residential building and the wider background against which they were taken ...**”  
(emphasis added)

13) Since, at the latest, 2000 central government has known, as the FBU submitted at the time, of the risks associated with cladding systems and the need for proper testing of building materials. MPs took a close interest through the 1999 Inquiry on cladding after fires at Knowsley Heights in 1991 and Garnock Court, in 1999. The Environment, Transport and Regional Affairs Committee (the “select committee”) reported on 5 January 2000 on the potential risk which could be posed by fire spread involving external cladding systems. For example, at paragraph 10 of its first report to parliament the select committee reported:

... 10. Witnesses' chief concerns lay with the risk of unexpectedly rapid fire spread involving these systems, which, it was suggested, may have a number of adverse consequences of which the existing guidance does not necessarily take full account. These are:

- shorter period available for escape from the building, thus potentially endangering life; [35]
- disproportionate difficulties in firefighting; [36]
- disproportionate damage to the building. [37]

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14) The select committee noted “...*the responsible attitude taken by the major cladding manufacturers towards minimising the risks of excessive fire spread ... (which had) ... been impressed upon us throughout this inquiry...*” (paragraph 18 of the committee’s first report, emphasis added) and concluded that “...*all external cladding systems should be required either to be entirely non-combustible, or to be proven through full-scale testing not to pose an unacceptable level of risk in terms of fire spread...*” (paragraph 20).

15) But the rainscreen cladding system constructed for Grenfell Tower met neither of those standards, being neither non-combustible nor proven through full-scale testing not to pose an unacceptable level of risk in terms of fire spread. Where was the “responsible attitude” impressed upon the 1999 Inquiry? How did the cladding industry and all those involved in the GT refurbishment come to assume, without proof, that highly combustible building materials could be used on high rise residential buildings, the paradigm of a high risk building?

16) **Independence of the certification bodies:** Testing and certification bodies should be independent of the construction industry, including the manufacturers of cladding materials. This has been long recognised. For example, in its annual report for the year ending 31 March 1999<sup>1</sup>, the day it ceased to be a Non-Departmental Public Body sponsored by the Department of the Environment Transport and the Regions and was afforded greater autonomy, the British Board of Agrément (BBA) declared under the heading “Background”:

... The BBA was established as a company limited by guarantee in 1966, as a consequence of Governmental and professional concerns, to provide construction industry decision makers with **independent information** on product performance through its Agrément Certificates, **stimulating safe innovation by manufacturers**, facilitating acceptance of their products in the market place and helping to reduce the incidence of building failures.  
... (emphasis added)

17) Instead, and perhaps relying on the “responsible attitude” noted by the select committee in paragraph 18 of its first report (cited above), these bodies appear to have lost their

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<sup>1</sup> Copy obtained from Companies House website is available from the FBU legal team.

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independence from the cladding and construction industry. For example, The Inquiry may consider it relevant, for example,

- a) that Mr M Ankers, Chief Executive of the CPA, was appointed to the Board of Governors of the BBA on 25 November 1999 remaining until after the GTD? The Construction Products Association (CPA) claims, on its website, to be the leading organisation that represents and champions construction product manufacturers and suppliers, or
- b) that Mr DJ Harper, former Group Chief Executive of Celotex Group Limited, so served from 15 November 2007 until 31 March 2016, chairing the BBA’s Board from 2008<sup>2</sup>. Celotex needs no introduction.

How, if at all, were these conflicts of interest resolved?

- 18) The BBA produced certificates which beggar belief. Was the noble public interest purpose for which the BBA was established displaced to further the interests of sponsors from the construction industry?
- 19) Likewise the Inquiry may consider it relevant to investigate why the BRE allowed itself to be constrained by confidentiality agreements<sup>3</sup> in the use it could make of “test fails”? Did they “*safeguard the test sponsor’s proprietary information*” at the expense of the public interest in learning from the test results?
- 20) **Scope of Modules 2 and 6:** As confirmed by the GTI letter of 22/11/19, the Inquiry will be undertaking a broader investigation into the relevant regulatory regime in Module 6. This will also include examining the relevant testing and certification regime. The FBU trusts the Inquiry will then investigate the underlying causes for the ignorance, neglect and/or complacent assumption of those who
  - a) manufactured, marketed and sold the building materials used for the rainscreen cladding system (RCS),
  - b) tested and certified these products,
  - c) designed the RCS,

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<sup>2</sup> See BBA’s annual reports submitted to Companies House, available from the FBU legal team on request.

<sup>3</sup> Debbie Smith’s statement {BRE00005624}, §42

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- d) selected the products,
- e) installed them,
- f) supervised the installation, and
- g) conducted the fire risk assessments consequential upon it.

21) **Underlying causes:** These lie at the heart of the Inquiry and, although postponed to Module 6, it is imperative they are then addressed with the same vigour and attention to detail as the Inquiry has applied in Phase 1 and in Module 1 of Phase 2. The Inquiry may find those underlying causes include:

- a) Introducing private “approved” inspectors in 1984, and extending their use in 1997,
- b) Amending the Building Regulations and the ADB guidance from 1985, but failing to clarify the guidance following the Lakanal House fire to explain the fire safety requirements of the increasingly prevalent rainscreen cladding systems seeking thermal efficiency but ignoring the correlative increased fire risk,
- c) Cuts to the enforcement agencies, both building control, fire authorities and housing authorities, reducing their ability to enforce standards and respond effectively to the new challenges of RCSs,
- d) Near constant attacks upon the public sector including fire and local housing authorities
- e) Privatisation of, and the encroaching influence of the construction industry upon, the testing and certification bodies, the BRE in 1997 and the BBA in 1999,
- f) The lack of publicly funded (non industry) research into changing risks posed by new construction methods and systems
- g) The introduction of the Fire Safety Order 2005 which ignored the structure and exterior of buildings;
- h) The introduction of the Housing Health and Safety Rating System in 2004 with no commensurate increase in housing authorities’ budgets to enable them to provide enough Environmental Health practitioners to consider the fire hazards associated with RCSs.
- i) The concurrent deregulation agenda making it easy for the construction industry to minimise, yet hard for the enforcing agencies to ensure, compliance.
- j) The abolition of the Central Fire Brigades Advisory Council (CFBAC) in 2004 and the failure of successor bodies to advise on the increasing fire risks associated with thermal insulation and RSC systems.



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- k) The failure of national and local government and of the testing and certification bodies to monitor development of risks as highlighted by cladding fires in the UK and internationally.

Martin Seaward, Counsel for the FBU

12<sup>th</sup> October 2020

IN THE GRENFELL TOWER INQUIRY

Chaired by  
**SIR MARTIN MOORE-BICK**  
Sitting with  
**Thouria Istephan**

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**FBU's Opening Statement for Module 2 of Phase 2  
of the GTI**

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