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Date: **14/10/2024**

To: **All Members**

Dear Brother/Sister,

Grenfell Tower Inquiry Phase 2 report – a digest of key findings

The Grenfell Tower fire on 14 June 2017 killed 72 people, left hundreds homeless and devastated a whole community. The campaign for justice continues.

The Grenfell Tower Inquiry (GTI) was announced by prime minister Theresa May a day after the fire. The terms of reference were set by the prime minister after a public consultation. The chair, retired judge Martin Moore-Bick, was appointed by the prime minister. The public inquiry employed more than 200 legal professionals. Its strengths and limitations reflect this.

The inquiry sat for 400 days of hearings between May 2018 and November 2022. The inquiry published its Phase 1 report in October 2019, dealing with events on the night. The GTI's Phase 2 report, published in September 2024, consists of 7 volumes and 1,700 pages.

The Phase 2 report is designed to answer the question:

> *1.3 How was it possible in 21st century London for a reinforced concrete building, itself structurally impervious to fire, to be turned into a death trap that would enable fire to sweep through it in an uncontrollable way in a matter of a few hours despite what were thought to be effective regulations designed to prevent just such an event?*

The FBU

The FBU has played a prominent role in learning lessons from the Grenfell Tower fire:

- as a core participant through the public inquiry
- representing nearly a thousand firefighters and emergency control staff who submitted witness statements to police and the inquiry
- supporting nearly 100 firefighters and emergency control staff who gave oral testimony
- submitting seven witness statements, 23 written submissions and other correspondence
- working with Grenfell community organisations and other campaigners
- briefing our members, ministers, MPs, LFB and other bodies about the report

- Speaking to national and local media.

The GTI Phase 2 report is not the last word on the Grenfell Tower fire, but it will shape the agenda in our profession for years to come.

This is a selection of some crucial paragraphs that are most relevant to FBU members and officials, who will want to know the main points to take from the report. The selection concentrates on central government and LFB and leaves out important matters of individual tenants and residents.

Chief fire officers are already setting out their own views on the findings and recommendations.

The FBU wants firefighters and emergency control staff to read the report, discuss it around the mess table and with principal management in brigades. The fire and rescue service must be transformed, with sustained investment, national standards and proper consultation with the FBU, through a new statutory advisory body.

The FBU will continue to campaign to secure justice for Grenfell.

Yours in unity,

Matt Wrack
General Secretary

Volume 1 – Central government and deregulation

2.4 We conclude that the fire at Grenfell Tower was the culmination of decades of failure by central government and other bodies in positions of responsibility in the construction industry to look carefully into the danger of incorporating combustible materials into the external walls of high-rise residential buildings and to act on the information available to them.

2.13 In the years that followed the Lakanal House fire the government's deregulatory agenda… dominated the department's thinking to such an extent that even matters affecting the safety of life were ignored, delayed or disregarded.

2.50 The conflict between the regulatory function of building control and the pressures of commercial interests prevents a system of that kind from effectively serving the public interest.

6.20 In Approved Document B 1985 dealing with fire safety, the longstanding requirement in the Building Regulations that external walls should be non-combustible was changed to provide that all external walls should be constructed of materials of limited combustibility...

7.44 Following the fire at Garnock Court, the Environment, Transport and Regional Affairs Select Committee… established an inquiry to examine the potential risk of the spread of fire through external cladding systems. [It] heard evidence on 20 July 1999 from a variety of witnesses... It also received memoranda... [Note: the FBU gave oral testimony and a written submission]

8.28 We accept that the government's enthusiasm for deregulation after 2010 made it reluctant to receive advice that the regulatory regime was inadequate.

8.32 There was no analysis of the lessons to be learnt from significant single incidents, from the identification of patterns across different reporting periods, or from significant fires overseas.

10.4 One of the principal policies of the government that came to power in May 2010 was deregulation. The idea was not new and indeed the Regulatory Reform (Fire Safety) Order 2005 is an example of an earlier initiative of a similar kind. The policy was based on the proposition that national productivity and economic growth were being held back by unnecessary regulation which needed to be swept away.

10.50 Lord Pickles was not only aware of, but supported, that approach, including the application of the policies to the Building Regulations. While he was Secretary of State deregulatory considerations appear to have permeated every aspect of the department's development, assessment and implementation of policy.

10.53 It was not in the public interest to allow the policy on deregulation to impede the ability of officials to promote changes to regulations or statutory guidance that would improve public safety.

12.49 On 17 July 2013, Sir Brandon Lewis had expressed reluctance to pursue the idea of a national fire safety regulator because he was not attracted to the idea of introducing additional regulation.

12.53 [Brandon Lewis'] response was criticised by Matt Wrack, the General Secretary of the Fire Brigades Union, who asked why the steps taken by the department had failed to bring about an improvement and why no further proposals had been forthcoming. He observed that, in the three years since the publication of the *Guide to Choosing a Competent Fire Risk Assessor*, there had been no steps to find out whether it had had any discernible effect. That was a very fair question.

Volume 2 – The testing and marketing of products

18.10 There is no indication that Arconic disclosed to the BBA that Reynobond 55 PE in cassette form had performed so badly or that it had reason to believe that the fire performance of the product in cassette form was significantly worse than in riveted form... it deliberately and dishonestly concealed from the BBA the fact that, as Test 5B had shown, its reaction to fire was significantly affected by the fixing system adopted.

22.134 The story of the development and marketing of K15 for use on buildings of over 18 metres in height between 2006 and 2019 is one of deeply entrenched and persistent dishonesty on the part of Kingspan in pursuit of commercial gain coupled with a complete disregard for fire safety.

24.1 The insulation used in the cladding system at Grenfell Tower was for the most part Celotex RS5000, a polyisocyanurate (PIR) thermosetting foam product. It was not a material of limited combustibility and was therefore not capable of conforming to the guidance on the construction of external walls contained in paragraph 12.7 of Approved Document B… the test on which Celotex relied as support for that claim had been rigged...

24.76 BRE had by degrees lost sight of the importance of maintaining a proper distance between itself and clients and of the need for scientific rigour and independence... Scientific rigour and independence were sacrificed in favour of financial sustainability.

29.13 The effective working of the system was not enhanced by the privatisation of BRE.

29.21 The government must take responsibility for the systemic failures that played a significant part in enabling the Grenfell Tower fire to occur.

29.23 When the matter next came before the relevant minister (then Brandon Lewis MP) in 2013, reluctance to introduce new regulations appears to have trumped the need to put the industry on a sound footing... Unfortunately, the government failed to pay proper attention to the voice of the fire sector whose various bodies were largely in agreement about what was needed.

29.24 Much the same can be said of the department's response to requests for clarification of the Fire Safety Order… the policy of deregulation appears to have stood in the way of amending the Order to provide the necessary clarity.

29.41 BBA the root of the problem lay in the conflict between the need to act as a commercial organisation, and therefore to attract customers in order to generate profits, and the need to maintain a high degree of independence and rigorous investigation…

29.57 There were repeated occasions on which NHBC failed to demonstrate sufficient independence and showed itself willing to accommodate the wishes of Kingspan for commercial reasons… The incentive to act in that way had been created by the introduction of Approved Inspectors, who were able to operate as commercial providers of building control services. In our view there is an irreconcilable tension between the requirements of regulation and the pressures of commerce that prevents a system of that kind from effectively serving the public interest.

29.59 In our view, there was a lack of effective co-ordination between what were in substance different aspects of a single system, the purpose of which was to ensure that the built environment was safe for those who lived and worked in it and for those who might be affected by it as visitors or just passers-by. That is a task that only the government can undertake.

Volume 3 – Tenant Management Organisation and fire safety at Grenfell Tower

31.35 From the start of Robert Black's tenure as chief executive in May 2009… the LFB was concerned that the TMO was producing its own fire risk assessments and that they were inadequate. The LFB was so troubled that it indicated that it would serve an enforcement notice on both the TMO and RBKC.

31.39 On 30 April 2010, a fire broke out in the lift lobby on floor 6 of Grenfell Tower… there had been a leakage of smoke from the extraction system into the lobbies of floors 7, 12, 13, 15, 17, 18, 19 and 20 that had led a number of residents to believe that their lobbies were smoke-logged and that they were trapped in their homes.

31.41 In March 2014 the LFB issued a deficiency notice to the TMO because of its failure to maintain the smoke ventilation system at Grenfell Tower. The system was finally replaced in 2016 as part of the refurbishment, but between 2010 and 2016 there was no fully functioning smoke ventilation system.

38.73 During the last quarter of 2015, two of the LFB's fire safety inspecting officers, Julie-Anne Steppings and Michelle McHugh, told Rebecca Burton, the leader of the LFB's Fire Safety Team for Hammersmith, Fulham, Kensington and Chelsea, of the concerns they had about the approach taken in fire risk assessments produced by Carl Stokes for the TMO. As a result, between November 2015 and September 2016, she raised the matter with the TMO on a number of occasions.

41.70 On 17 November 2016, the LFB issued a deficiency notice to the TMO in respect of Grenfell Tower on the grounds that the protected escape route (corridors, lobbies and stairs) was compromised by doors that did not have self-closing devices.

44.28 In the circumstances, there is no reliable evidence of when the fire control switch was last tested by PDERS before the fire. In fact, the weight of the evidence suggests that the fire control switch was not regularly tested before 14 June 2017.

44.40 The first possibility is that the switch was jammed with debris. It was first tested on 18 April 2018 in the presence of professional engineers from WSP, Elan Lifts, the Metropolitan Police, the LFB and an independent lift test engineer. The report of the test made by WSP recorded that the switch was difficult to operate. The faceplate was removed to determine the reason why the switch could not be operated and the mechanism was found to be seized and deformed.

44.44 Arup's report is dated 1 March 2019. It stated that a visual examination of the switch disclosed a build-up of builders' material on the casing and that the micro-switch was jammed. The author's impression was that the debris was wall plaster. On examination, the micro-switch became free and worked. The cause of the jamming could not be identified, but there were plaster grains on the work bench.

44.46 Mr Howkins was also present at the test on 15 February 2019… He originally estimated the quantity of debris removed as about a quarter of a teaspoonful, but in his evidence he said that it had been half to three-quarters of a teaspoonful.

46.73 During a visit to Grenfell Tower on 12 March 2014, representatives of the LFB fire safety team and a local fire station crew asked for a premises information box to be installed.

46.81 Of the 297 people present in Grenfell Tower on the night of the fire, 67 were children and 37 were adults with sensory, mobility or cognitive impairments.

Volume 4 – The refurbishment of Grenfell Tower

51.10-51.11 A meeting took place on 1 November 2011… the effect of the KALC [school] project on Grenfell Tower and the Lancaster West estate was discussed… the TMO was keen to investigate the opportunity to overclad Grenfell Tower and replace its windows... That is the first record we have found of any discussion of the possibility of cladding Grenfell Tower.

54.125 The failure to ensure the effective involvement of a fire engineer in the project following the appointment of Rydon as principal contractor was in our view one of the most serious flaws in the design and execution of the refurbishment.

54.170 We have therefore come to the view that Exova bears considerable responsibility for the fact that Grenfell Tower was in a dangerous condition on completion of the refurbishment.

61.4 There was no health and safety file for Grenfell Tower when the refurbishment began.

62.64 Building control was the last line of defence and had a statutory obligation to check for compliance with the Building Regulations... It therefore bears considerable responsibility for the dangerous condition of Grenfell Tower immediately on completion of the refurbishment.

63.1 Studio E was the architect for the Grenfell Tower refurbishment... We have concluded that Studio E fell well below the standard to be expected of a reasonably competent architect in respect of that work. Its failures relating to the design of the external wall and the selection of materials to be used in its construction had catastrophic consequences. Studio E therefore bears a very significant degree of responsibility for the disaster.

64.1 Rydon failed in a number of important respects properly to perform its role as primary contractor for the Grenfell Tower refurbishment. It promised the TMO that when completed the refurbishment would comply with the Building Regulations, but it did not… it did not give sufficient importance to the safety of the building's occupants and it displayed a casual attitude to fire safety throughout the project. As a result, Rydon bears considerable responsibility for the fire at Grenfell Tower.

65.6 We consider that Harley's work on the refurbishment was characterised by a failure to take its responsibilities seriously, ignorance, complacency and a failure properly to manage its staff. As the specialist contractor responsible for the external wall of the tower, the standard of Harley's work fell well below that to be expected of a reasonably competent cladding contractor and it must therefore bear a significant degree of responsibility for the fire.

66.1 Responsibility for the dangerous condition of Grenfell Tower following the refurbishment project, including the presence of combustible materials in the walls and around windows, rests primarily on those who designed, constructed and approved the work and some of those who manufactured and sold the materials they used. However, the TMO itself must take a share of the blame for the disaster.

67.10 That eventually resulted in the unedifying "merry-go-round of buck-passing" in which the construction professionals all pointed the finger at each other as being the person whose responsibility it was to make one or other of the critical decisions.

67.16 The way in which the Grenfell Tower refurbishment was handled raises serious questions for the whole of the construction industry. We were not asked to investigate the industry at large and we do not know whether the shortcomings we have identified are typical, although, judging by the evidence we heard, we think they are likely to have been widespread.

Volume 5 – The London Fire Brigade

75.29 It must also be acknowledged, however, that the LFB was not alone in this failing. At the time of the Grenfell Tower fire there was no national operational guidance on how to evacuate a residential high-rise building and it does not appear that any other fire and rescue service in the United Kingdom had included in their operational policies or training any guidance on the practical aspects of carrying out an evacuation, beyond saying that it should be considered…

75.32 The evidence suggests that before the Grenfell Tower fire evacuations of high-rise residential buildings had been partial rather than total. (At any rate, we have not been provided with any evidence of a total evacuation of a residential high-rise building in London or elsewhere in the United Kingdom.)

75.47 By the end of 2016, the LFB as an organisation was well aware of the dangers posed by some kinds of modern construction materials and techniques and of the particular dangers presented by various kinds of combustible materials... that knowledge was almost entirely confined to the Fire Safety department and was not shared with those who were responsible for operations. As a result, those who were deployed to fight fires were not trained to deal with situations which could become catastrophic both for them and, in the case of residential buildings, their occupants.

79.41 Between 2013 and the Grenfell Tower fire, existing control room staff did not receive the full day of fire survival guidance refresher training that had been planned and approved by the Lakanal House Board and promised to the coroner.

79.45 The control room also suffered from significant staffing problems and underwent restructuring between 2009 and 2017.

79.102 For a number of years after its introduction, Vision continued to be plagued by significant system failures. More than 500 faults were reported to Capita in the first six months. There were also six occasions during the first year when the system failed altogether for periods of between 40 minutes and three hours, requiring the use of contingency measures… “basically pen and paper”.

79.123 Between 2011 and 2012 the LFB was considering a proposal to enter into a contract with a third party for the provision of control room services, which resulted in a temporary halt to recruitment.

80.57 The LFB did not provide sufficient guidance to firefighters and incident commanders on how best to overcome difficulties with communications encountered in high-rise buildings.

82.10 The firefighters involved in the firefighting operations outside the tower did all that they reasonably could to extinguish the fire and to protect the lives of those inside the building.

83.1 In the Phase 1 report the chairman recognised that the firefighters who attended the Grenfell Tower fire displayed enormous courage and selfless devotion to duty. We echo that finding…

83.3 The evidence clearly shows that the LFB’s failure was attributable to a chronic lack of effective leadership, combined with an undue emphasis on process and a culture of complacency.

83.4 Ron Dobson and Dany Cotton, as former Commissioners, bear ultimate responsibility for the LFB’s inability to take effective action after the Lakanal House fire.

Volume 6 – The night of the fire and the deceased

84.2 Professor Fiona Wilcox, His Majesty's Senior Coroner for London (Inner West)… opened 70 separate inquests into the deaths of those who died in the fire. She subsequently suspended those investigations pending the conclusion of this Inquiry and, if necessary, the police investigation.

84.4 At an early stage of the Inquiry, the chairman decided that, in discharging its Terms of Reference and insofar as it was properly permissible to do, the Inquiry would investigate the deaths caused by the fire to the same extent as would be required of the coroner. The chairman's hope was to minimise the need for Professor Wilcox to conduct further detailed investigations, so sparing the relatives of those who died the stress of prolonged proceedings.

84.11 Many of those who died on 14 June 2017 were found in their own homes; others had sought shelter elsewhere in the tower or were overcome while trying to leave the building and were found in the lobbies or on the stairs. Three fell from the tower.

85.30 Professor David Purser… was instructed to give expert evidence on toxicology. In broad terms, he considered the causes of the incapacitation and death of those who died in the tower, building on the preliminary conclusions he had reached in the report he provided for Phase 1.

85.34 To estimate the exposure of an individual to irritant smoke and its effect Professor Purser estimated the fuel load and range of materials involved in the fire to calculate the average composition of the asphyxiant gases entering the tower. For that purpose he relied upon a study published by BRE in March 2003 entitled *The potential for including fire chemistry and toxicity in fire safety engineering* which contained the results of two experiments measuring yield and concentrations of various gases produced when certain products were burned. He also relied on tests carried out by Professor Anna Stec to determine the composition of smoke particulates and the yield of toxic gases obtained from burning samples taken from Grenfell Tower itself. Professor Purser used descriptions given by witnesses of conditions in the tower and medical records of survivors to estimate the extent of smoke obscuration and irritancy.

85.39 The rate at which asphyxiant gases are absorbed depends on an individual's personal characteristics. Infants and children absorb gases at about twice the rate of adults, which hastens the time to collapse and death.

85.41 From the descriptions of dense, irritant smoke in the lobbies, the very limited visibility described by the witnesses and the general fire conditions, Professor Purser estimated that the concentration of carbon monoxide and hydrogen cyanide was likely to have been high and in the lobbies sufficient to cause a person to collapse within about three-to-five minutes of exposure.

85.43 Professor Purser drew a distinction between conditions up to about 01.49 and those thereafter. He considered that until about 01.49 it was still possible to descend the stairs without danger of collapse. After that it was still possible to escape by the stairs, but was more hazardous due to the dense smoke and absence of visibility in both the lobbies and the stairs.

85.47 The key distinction between those who survived and those who died is that those who survived left before the fire spread to the outside of their flats or the rooms in which they were sheltering.

85.49 Almost all those who died in the tower had concentrations of carboxyhaemoglobin in their blood consistent with death from asphyxia.

Volume 7 – Selection of the 58 recommendations

113.8 We therefore recommend that the government bring responsibility for the functions relating to fire safety currently exercised by MHCLG, the Home Office and the Department for Business and Trade into one department under a single Secretary of State.

113.43 We therefore recommend that the government seeks urgent advice from the Building Safety Regulator and the National Fire Chiefs Council on the nature and scale of the problem and the appropriate response to it [fire control switches].

113.51 We welcome the government's ambition to create an independent College of Fire and Rescue… and we therefore recommend that the government establish such a college immediately with sufficient resources… The constitution of the College of Fire and Rescue is a matter for the government in consultation with the National Fire Chiefs Council and other interested bodies...

113.55 We recommend that… the Inspectorate… inspect the LFB as soon as reasonably possible to assess and report on… the control room…

113.56 We recommend that as soon as reasonably possible the Inspectorate inspect the LFB to examine and report on… the training of incident commanders...

113.57 We therefore recommend… the Inspectorate inspect the LFB to examine and report on its arrangements for collecting, storing and distributing information in accordance with section 7(2)(d).

113.58 We therefore recommend that the LFB establish effective standing arrangements for collecting, considering and effectively implementing lessons learned from previous incidents, inquests and investigations.

113.59 We therefore recommend that fire and rescue services that continue to use low power intrinsically safe radios… consider reserving them only for situations in which there is a real risk of igniting flammable gases and generally using radios of higher power...

113.60 We therefore recommend that all fire and rescue services give consideration to providing all firefighters with digital radios.

113.61 We recommend that firefighters be trained to respond appropriately to the loss of communications and to understand how to restore them.

113.62 We therefore recommend that basic training on the structure and operation of the water supply system, including the different types of hydrants in use and their functions, be given to all firefighters.

113.63 We therefore recommend that all fire and rescue services establish and periodically review an agreed protocol with the statutory water undertakers...

113.64 We therefore recommend that the British Standards Institution amend BS 750...

113.65 We recommend that National Fire Chiefs Council consider whether, and if so in what circumstances, firefighters should be discouraged from departing from their instructions on their own initiative and provide appropriate training in how to respond to a situation of that kind.

113.82 We therefore recommend that further consideration be given to the recommendations made in the Phase 1 report in the light of our findings in this report.