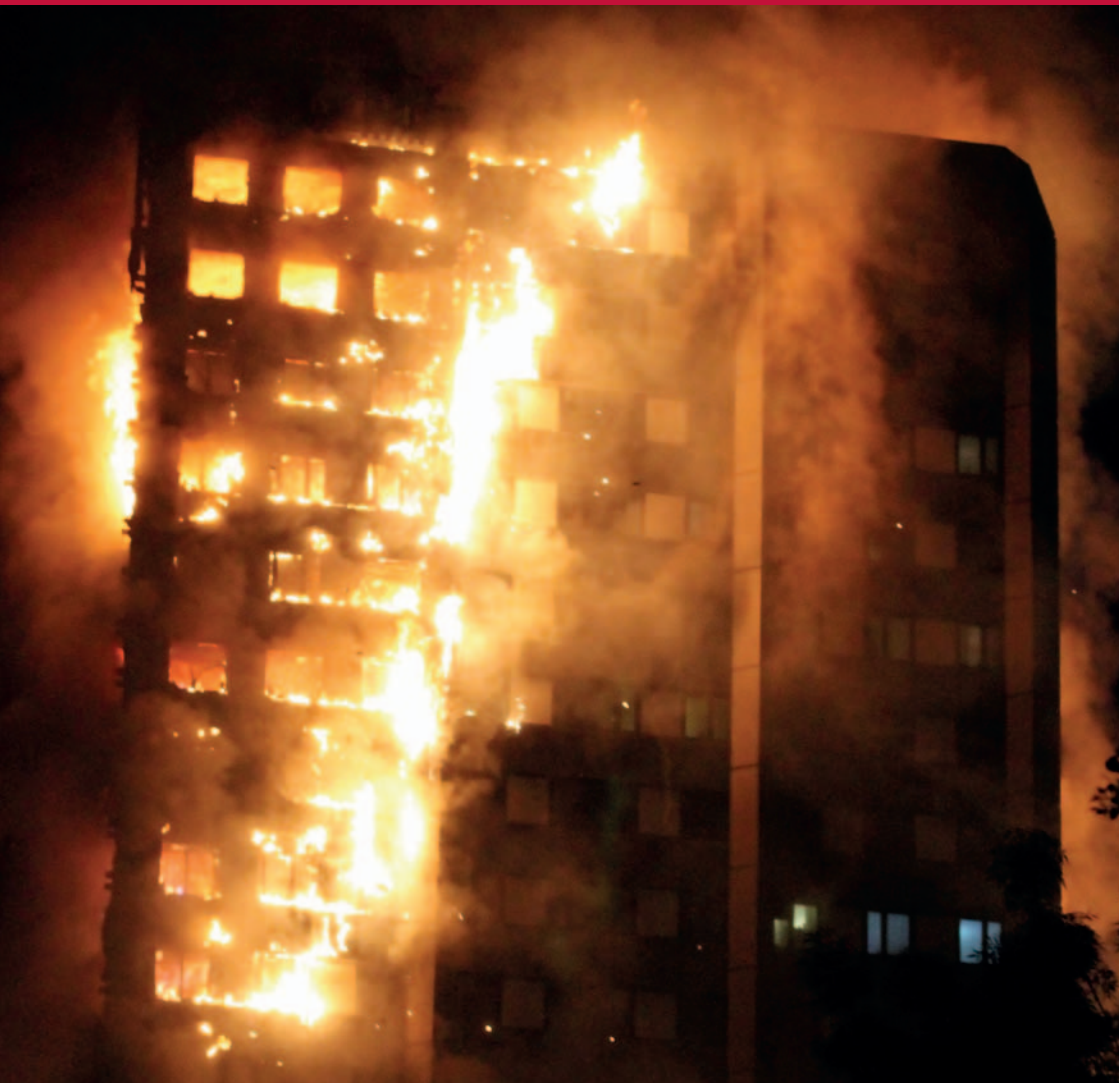
FBU RESPONSE TO THE GRENFELL TOWER INQUIRY PHASE 1 REPORT

FIRE BRIGADES UNION



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INTRODUCTION

The Fire Brigades Union (FBU) is the democratic, professional voice of firefighters and other workers within fire and rescue services across the UK. We represent the vast majority of whole-time (full-time) and retained (part-time, on-call) operational firefighters and operational fire control staff across the UK.

The FBU welcomes the publication of the Grenfell Tower Inquiry (GTI) Phase 1 report. The bereaved, survivors and residents (BSRs) – as well as firefighters – have waited too long for an official report into the fire. The union commends the GTI for the dignified treatment of those who died or who lost loved ones. The FBU welcomes the recommendations and will work together with other interested parties to ensure they are implemented swiftly. There are many practical matters to be resolved, which the union is committed to assist with.

The GTI has published a great deal of written evidence from those who lived in and around Grenfell Tower, which sheds light on the events of 14 June 2017. It has also heard oral testimony from those directly affected. Similarly, firefighters attending on the night have given their written statements and some also gave testimony to the inquiry. A range of expert reports have been produced, which also provide much insight into the fire at Grenfell Tower.

Despite the merits of the GTI's investigation so far, the FBU cannot ignore significant shortcomings in the Phase 1 report. The GTI has produced a forensic examination of the events of 14 June 2017 at Grenfell Tower and made a number of scathing criticisms of the actions of firefighters on the night of the fire. The report comes to a very harsh verdict on the London Fire Brigade (LFB), particularly its principal management. The Phase 1 Report states that the public inquiry is intended to be "an investigative, rather than an adversarial, process" (1.25).[1] Yet firefighters feel aggrieved when they are subjected to harsh criticism, while those responsible for the failures that led to a disaster on this scale have so far not faced serious cross-examination.

The conclusions drawn by the GTI's Phase 1 report fail to reflect very significant evidence and interpretation provided by the Inquiry's own appointed experts. Mr Todd's report provides a useful overview of the regulatory context and yet is barely referred to. Dr Lane, Professor Torero and Professor Purser provide significant evidence of early smoke logging, derived from the witnesses inside the building, yet

this is mostly overlooked. To compound this, the GTI appointed Mr McGuirk as its firefighting expert, yet came to stark conclusions about firefighting matters without his input. For the record, the FBU opposed Mr McGuirk's appointment to the GTI because of his previous record as a chief fire officer. However the union strongly supported the need for the GTI to receive expert input from the fire sector (including our own contribution).

The GTI's Phase 1 report fails to establish the necessary context within which the fire took place. This is the consequence of investigating the events of the night before looking at what led up to it. The GTI has neglected the deregulation of fire safety, which proceeded for almost the entire life of Grenfell Tower. Government ministers and business lobbyists responsible for weakening the fire safety regime are completely ignored by the GTI.

The GTI report fails to put the decisions and actions of firefighters on the night into context. The building itself, the presence of the cladding, along with failings with the windows, doors, lifts, ventilation system and dry riser meant that compartmentation was compromised before the fire started. Grenfell Tower suffered from total building fire safety failure long before the fire had broken out. Long established fire safety engineering solutions in the tower were compromised. Investigating how this was allowed to happen raises serious questions for 'responsible persons', namely the owners and managers of Grenfell Tower, the Royal Borough of Kensington and Chelsea (RBKC) and the Kensington and Chelsea Tenant Management Organisation (KCTMO), as well as those other parties who profited from the refurbishment project, which clad the tower in combustible materials.

LFB principal management did not plan for a fire of this type or magnitude, did not develop procedures for such a fire and did not train and equip incident commanders, operational firefighters and emergency control staff for this eventuality. But no fire and rescue service in the UK had anticipated such a failure in residential tower blocks at that time. Local fire and rescue services (including LFB) do not operate in isolation: they exist within the context of regulations, guidance and resources for the whole fire and rescue service determined by the ministers and chief fire officers. This enables firefighters from different stations and brigades, as well as control staff from different control rooms, to work together at incidents under a single command structure.

The FBU accepts the GTI's findings that the fire originated in the large fridge freezer in flat 16. The union also agrees with the GTI's conclusion that the fire subsequently spread through the window, window surrounds or extractor fan to the exterior

cladding, and from there rapidly to the top of the building and via the architectural crown to other sides of the tower. The FBU also accepts the GTI's findings that the fire broke back into flats via the window glazing, extractor fans and window surrounds, and then from flats through defective and/or open doors into the lobbies and stairs.

The GTI's Phase 1 report fails to understand the actual conditions faced by residents on the night, which severely limited the options available to firefighters. The GTI has failed to draw the proper conclusions from the important evidence provided by the bereaved, survivors and residents on smoke logging, particularly around 01.30, which prevented many of them from leaving the building. The GTI has also failed to take on board the evidence and interpretation of its own experts. They paint a far more complex picture than the simplistic view in the GTI's Phase 1 report.

The FBU rejects the GTI's Phase 1 report conclusion (expressed in chapter 28 and sadly littered throughout the narrative), that a decision for some sort of 'mass evacuation' should have been taken at 01.30 (or at least by 01.50). This was unprecedented in the UK, where there had never been a mass evacuation of a high rise residential building involved in fire and for which there was no procedure nor had there been any training. There had been no national research, development, planning or procedures for such an approach before the Grenfell Tower fire in the UK. It still has not happened but at last a national steering group is being established with this in mind.

The FBU rejects the GTI's 'mass evacuation' proposal as unfeasible on the night. The union finds it perverse that the GTI came to this conclusion without taking evidence from its own appointed firefighting expert, Mr McGuirk. The fact that the report admits as much, when it states "I am conscious that I have received no expert evidence to guide me on it" (28.5). But this qualification does not excuse the approach.

The FBU rejects the GTI's criticism of incident commanders in the first two hours of the fire, for not making this decision to 'evacuate' or for not abandoning the 'stay put' policy. Grenfell Tower was designed for 'stay put'. The GTI appears to believe that early incident commanders should have disregarded their training, ignored the actual conditions on the night and gambled on an untried, untested command 'strategy'. The GTI has not taken into account the situation facing incident commanders nor properly considered the resources at their disposal when faced with an unprecedented fire.

The FBU rejects the GTI's harsh criticism of individual control staff, who did their professional best on the night when faced with an overwhelming volume of calls, including the number and duration of FSG calls never experienced before. The often personalised micro-criticism of individual control staff detracts from the real failures. Control staff were under-resourced, not trained for such a fire and faced huge uncertainties on the night.

The FBU rejects the criticism of individual firefighters, who had to make split-second decisions in very arduous conditions given the lack of planning, procedures, training or equipment necessary to intervene. The FBU believes firefighters went beyond their professional duty, often risking their own lives to rescue people. Firefighters attempted to save as many people as they could. Sadly, they were not able to help everyone escape.

The FBU believes that the GTI's posing of the question 'could more lives have been saved' is unhelpful speculation. The real counterfactual is that more lives would have been saved had the cladding not been installed, nor the building failed on fire safety grounds in other significant respects, including windows, doors, the ventilation system, lifts, stairwell and other failures. The GTI makes severe judgments in hindsight about the events of the night, which the FBU believes fail to pay proper regard to the real risks and uncertainties facing the firefighters initially deployed to the fire.

The FBU said from the outset that the GTI's division into Phase 1 and 2 was mistaken and we believe the Phase 1 report bears this out. The report has to refer fleetingly to matters leading up to the fire, but fails to fully establish the context within which firefighting took place on the night. It would have been better to establish the circumstances that led to the fire (and the culpability of those responsible for the building) before proceeding to examine the events on the night. The FBU expects the GTI, in Phase 2, to undertake the same kind of forensic investigation and criticism of individual politicians, business people and others responsible for Grenfell Tower. The union notes that, in Module 6 of Phase 2, the GTI will be considering the issues of whether 'appropriate steps [were] taken by central and local government and other relevant bodies to act upon [relevant recommendations made before Grenfell] insofar as they were relevant to the risk of fire in high-rise residential buildings?' We expect ministers who were ultimately responsible for the failed fire safety policy over many decades, which has now been exposed by the Grenfell Tower fire, to answer for their failures in Phase 2.

1. BEFORE THE FIRE: DEREGULATION – MINISTERS AND BUSINESS

To understand the actions of all individuals on the night of the Grenfell Tower fire requires establishing the circumstances under which key actors operated. The FBU believes the drive towards deregulation of fire safety has set the context in which owners, contractors and fire services operated in recent years.

The GTI commissioned Mr Todd to produce a report on the relevant statutory and regulatory requirements in force at the different stages of the design, construction and refurbishment of Grenfell Tower. This report has been available since March 2018 and was commissioned as evidence for Phase 1. The FBU also made submissions to the GTI and has published booklets on these matters.[2] Yet the GTI report Chapter 5 contains less than two pages on the regulatory context.

Mr Todd's report spells out the weakening of building regulation, guidance and enforcement over recent decades. Notable developments from the 1980s include the trimming of national Building Regulations, the ambiguous and voluntary Approved Document B guidance, the weakening of building control by the imposition of private 'approved inspectors' and the privatisation of the Building Research Establishment (BRE), responsible for testing and research of building hazards.

In parallel, the legislation governing fire safety was weakened. The Fire and Rescue Services Act 2004 scrapped a range of national standards and statutory bodies, such as the Central Fire Brigades Advisory Council (CFBAC), which had effectively overseen fire safety for decades. The Regulatory Reform (Fire Safety) Order 2005 gave owners and managers of buildings the responsibility for risk assessment, but weakened the enforcement regime available to the fire and rescue service. Instead voluntary guidance increasingly permitted owners and construction firms to experiment with people's homes.

In the last decade, local government and the fire and rescue service suffered unprecedented austerity, with savage cuts to central and local funding. In the case of firefighters, around 20% of the workforce has been reduced, with fire safety inspecting teams and departments in particular suffering even more serious reductions. Conscious decisions at central government level were made,

despite regular warnings of the likely consequences by the FBU and other organisations. Resilience was weakened and risks taken with the safety of residents and firefighters alike.

THE 'RESPONSIBLE PERSONS' AND CLADDING

These regulatory matters are important because they indicate where immediate responsibility lies for the fire at Grenfell Tower. The GTI report is right to argue that "on completion of the main refurbishment the external walls of the building did not comply with requirement B4(1) of Schedule 1 to the Building Regulations" (26.6). This view is backed by experts Dr Lane and Professor Bisby, as well as a number of core participants (26.3).

The FBU believes the installation of the aluminium composite material (ACM) rainscreen cladding should have been the central focus of the Phase 1 report. This is what put at risk the safety of the residents of Grenfell Tower and the safety of firefighters responding to the incident. Tracing the decisions and decision makers responsible for this failure will be of direct interest to the bereaved, survivors and residents of Grenfell Tower. Had this been done first, it would have set the vital context for any evaluation of firefighters' actions on the night. The FBU believes Dr Lane's conclusion is right:

> *2.10.1 I do not consider it reasonable that in the event of the installation of a combustible rainscreen system on a high rise residential building, the fire brigade should be expected to fully mitigate any resulting fire event. That is particularly so in circumstances where the fire brigade had never been informed that a combustible rainscreen system had been installed in the first place.*[3]

The FBU also believes that other building failures which contributed to events on the night of the fire should also have been fully investigated in the GTI's Phase 1 report. This is because they are vital to explaining the failure of compartmentation. They include failures relating to the doors, the lifts, the absence of a wet riser, building design and the absence of an alarm system. Dr Lane's reports provided strong evidence of multiple fire safety failures within the building, leading to a "culture of non-compliance" among the owners and managers responsible for safety.

DOOR FAILURES

Flat entrance doors, which appear to have been installed in 2011-12, had multiple defects. Dr Lane pointed to the flat door tested by BRE Global, which achieved only 15 minutes integrity fire resistance, half the required duration for compliance with Approved Document B. Self-closing devices were either not installed, disconnected or not maintained, so flat doors did not close automatically when residents left the building.[4]

The stair doors, which do not seem to have been replaced during the refurbishment, achieved a fire resistance as low as 12 minutes integrity. This led Dr Lane to conclude that "none of the stair doors from Level 4 upwards complied with the design guidance used for the original design of the building". She added that these non-compliances "would have contributed to the failure to prevent the spread of smoke to the stair".[5]

OTHER FAILURES

Firefighters were unable to take control of the lift. One was already out of order, but the other lift could not be overridden. Firefighters were unable to use it after the first half an hour of the fire. Nor could residents use it safely to self-evacuate.[6]

Grenfell Tower contained only a dry fire main (dry riser) instead of a wet fire main. Dr Lane pointed out this was non-compliant with the design guidance in force at the time of original construction and is also non-compliant with current standards. On the night of the fire, firefighters were "unable to get adequate water for firefighting from the dry main on the upper levels due to the lower capacity of the dry main system compared to a wet main system". Multiple fires meant the demand for water outstripped the capacity of the system. Additionally, the location of the main directly outside flat '3's "posed serious problems for the firefighters, once conditions deteriorated within the lobbies".[7]

Dr Lane concluded that "the design of the lobby smoke control system was substantially non-compliant with the performance requirements of the relevant British Standard". The smoke control system was intended to operate on one floor only. Therefore the system could not "operate on multiple lobbies simultaneously, and so could not prevent smoke entering the stair in circumstances where there was smoke on multiple floors".[8]

Finally, Dr Lane also noted that Grenfell Tower had no automatic or manual means of raising an alarm sounder or providing voice alarm announcements. Although this was not required by regulations or guidance, the absence of such systems would inevitably hamper any effort to evacuate or rescue residents from the building in the event of fire.

2. BEFORE THE FIRE: MISTAKES OF LFB PRINCIPAL MANAGEMENT

The GTI makes a wide range of criticisms of London Fire Brigade (LFB) principal management, particularly its failure to plan for a fire of this type or magnitude, its failure to develop procedures for such a fire and its failure to train and equip incident commanders, operational firefighters and emergency control staff for this eventuality. The FBU accepts these criticisms as valid.

The FBU represents the vast majority of the LFB's workforce. But the union does not represent LFB principal management, nor does the union speak for the LFB. In fact, FBU officials (and members) have probably had more disputes with LFB principal management than anyone else – including strikes during 2010 over imposed shift changes, battles over cuts, legal cases on officers' pay deductions, as well as disputes over safety matters. London FBU members are acutely conscious about the shortcomings of those at the top of the LFB. Since the introduction of Integrated Risk Management Plans (IRMP) the FBU has been the most consistent critic of LFB Safety Plans.

However the GTI is remiss for failing to put the LFB's situation in its proper context. The GTI states that at the time of the fire at Grenfell Tower the LFB had some 5,500 employees, of whom 4,600 are full-time operational firefighters and officers, mostly working from 103 operational fire stations in London (7.5, 7.9). However a decade ago the LFB employed 7,200 people in total, including more than 6,000 operation firefighters. It then had 113 fire stations.[9]

In 2013-14, London mayor Boris Johnson imposed swingeing cuts to the LFB. Ten fire stations were closed, including Belsize, Knightsbridge and Westminster relatively near to Grenfell Tower. Other stations lost a pump. Some 14 appliances were lost across London, including Ealing fire station, which sent firefighters to Grenfell Tower. Similarly, two fire rescue units (FRUs), which are specialist heavy-rescue vehicles, were lost. As a result of this phase of Johnson's cuts, 552 firefighter jobs were lost in one go.

The loss of almost a quarter of its workforce over the last decade has had a devastating effect on the LFB. This has included a reduction in fire safety inspectors from 200 to 150 in the decade before the Grenfell Tower fire.[10]

A further 13 appliances, removed during central government's pension attack on firefighters, were finally withdrawn altogether in 2016. The LFB also faced the attempted privatisation of its control room and the actual privatisation of its training to Babcocks. The GTI has not taken these matters into account when framing its criticisms of the LFB. We expect the GTI to consider these matters in Phase 2.

The GTI states that the serious shortcomings in the response of the LFB "were for the most part systemic in nature" (1.20). The FBU reiterates that systematic deficiencies are ultimately matters of central government failure: many of the problems identified with the LFB would almost certainly be found in other brigades across the UK.

THE LFB'S KNOWLEDGE OF CLADDING FIRES

The GTI criticises the LFB for its failure to plan and prepare for fires involving cladding systems (27.12, 27.14). Although the LFB's fire safety regulation department delivered a *Tall Building Facades* presentation to senior staff in late 2016, the LFB did not establish adequate procedures for tackling cladding fires nor did it adequately train firefighters, officers and control staff for such fires. The GTI report states that:

> *27.20 The failure to train firefighters in how best to fight cladding fires was the inevitable consequence of the LFB'S institutional failure to inform its firefighters about the risks they present.*

The FBU agrees with the GTI that LFB principal management did too little and too late to prepare firefighters for the risks of cladding fires. However as Professor Torero points out, the international examples of external fire spread most commonly showed "a flame rapidly spreading upwards with very limited lateral flame spread". Similarly, "once the fire has spread to the top, it proceeds to decay and eventually extinguish".[11] By contrast, and unexpectedly, the Grenfell Tower fire broke back into the building on multiple levels, raced across the crown and enveloped the whole tower.

However the institutional failure lies above the LFB or other individual brigades – at the level of central government. Soon after the turn of the century, the Central Fire Brigades Advisory Committee (CFBAC), the stakeholder body advising UK ministers on fire safety matters, was abolished. Westminster governments in the ensuing years never replaced the CFBAC. They relied on the Chief Fire Officers' Association (CFOA) and its successor, the National Fire Chiefs Council (NFCC).

The FBU believes it is the role of central government to research cladding fire risks, including the new materials and international examples or to ensure such research took place. It is central government's responsibility to provide regulations and authoritative guidance to direct local fire and rescue services about managing those risks, along with the necessary resources to implement the guidance. The GTI places the responsibility with the LFB, when the institutional failures lie further up at the level of the Westminster government.

LFB HIGH RISE POLICY PN633

The GTI report describes LFB's policy for fighting fires in high-rise buildings, PN633 as "gravely inadequate" (2.18). The FBU agrees with this criticism and we believe LFB principal management have also recognised its failures in this respect.

At the time of the Grenfell fire, LFB's pre-determined attendance (PDA) for a high-rise fire was four appliances under the direction of a watch manager (7.39). The LFB revised this high rise PDA from 22 June 2017 to "five fire engines, one aerial appliance and the standard officer complement for a five pump fire being mobilised to any high rise fire related incident". LFB made a further interim revision to the high rise PDA starting from 10 August 2017. When brigade control receives multiple calls (four calls or more) to a residential high rise premise, the PDA currently includes eight fire engines and one aerial appliance.

The FBU believes this is tantamount to an admission by LFB principal management that their PDA at the time of the Grenfell Tower fire was inadequate. The FBU London region's submission to LFB's fifth safety plan (2017) warned of the dangers of reducing the PDA to only two appliances and warned that a minimum of 13 firefighters was necessary at a single flat fire in a high rise residential building before firefighting could safely be undertaken.[13]

The GTI report criticises the LFB operational policy PN633 – High rise firefighting (issued in June 2015) for failing to implement the central government guidance, *Generic Risk Assessment 3.2 – fighting fires in high rise buildings* (2014), known as GRA 3.2. In particular it criticises LFB for its failure to contemplate the total evacuation of a high-rise building or to train incident commanders for a full or partial evacuation if the behaviour of the fire justifies it (27.2, 27.6).

The FBU believes that the LFB's policy PN633 was flawed. The LFB were particularly remiss because they took the policy lead for revising GRA 3.2 between 2010 and 2014.

This is acknowledged in an LFB report, *National guidance and London Fire Brigade operational policy for fighting fires in high rise buildings.*[14] This LFB report details how the LFB's PN633 failed to incorporate key elements of GRA 3.2, especially paragraphs on evacuation. These criticisms were made well before the GTI's report was published.

The FBU would add that the GTI should be more critical of GRA 3.2. In particular, the advice to incident commanders to "follow the evacuation plan devised as part of the premises fire risk assessment" was vacuous, when the only plan likely to be operative was "stay put". Instead the GRA 3.2 guidance simply suggested referring to Approved Document B paragraph 4.27 for further information.[15]

But the Approved Document B guidance provides little to prepare firefighters for situations where they need to evacuate very large numbers of people from high rise residential buildings. The advice on evacuation assumes buildings have been designed for such an eventuality. It is aimed at high rise workplaces, which have regular fire drills, central alarm and communication systems, wide stairs and other measures in place, where most hazardous incidents occur during daytime. However this section does not address all the specific risks firefighters face when seeking to evacuate high rise residential buildings, particularly at night, when there is only one staircase and no central warning systems. Such issues are clearly of heightened importance for any evacuation *during* a fire.

The FBU's closing submission to the GTI (December 2018) made these points. The coroner for the Lakanal House fire clearly had serious concerns with GRA 3.2, which ministers did not fully evaluate. The lack of central, national guidance was a material cause of the failure of fire and rescue services, (even the UK's largest, the LFB) to develop an alternative evacuation/rescue plan in these circumstances and then to provide training and resources for incident commanders and other firefighters to implement it on the fire ground.

LFB FIRE CONTROL POLICY

The GTI report is highly critical of LFB's policies governing the handling of emergency calls in the control room, Emergency Call Management (PN539) and Fire Survival Guidance Calls (PN790). It also makes some comments on Reference Information Files (RIFs) for control operators and for supervisors. In particular the GTI emphasised FSG calls:

29.44 Having considered the LFB policy documents relating to the management of emergency calls, in the light of events on the night of the fire, I have reached the conclusion that they are deficient in a number of respects in relation to FSG calls.

The FBU accepts that LFB policies for control room operators and officers were inadequate. The FBU is aware that LFB principal management have already begun the process of revising its control policies, including on FSG calls. Any changes should be negotiated with control staff, who know the job better than anyone.

SECTION 7(2)(D) VISITS TO GRENFELL TOWER BEFORE THE FIRE

The GTI report argues that the failure to appreciate the nature of the risks posed by the cladding at Grenfell Tower was due in part to the approach adopted by the LFB to the discharge of its obligations under section 7(2)(d) of the 2004 Fire and Rescue Services Act (27.21). The report states:

27.27 In this respect the LFB as an institution failed to implement the requirements of GRA 3.2 and PN633 by failing to train frontline officers in how to carry out proper section 7(2)(d) inspections. One question which arises in light of developments in construction techniques and practices is whether, and if so to what extent, section 7(2)(d) visits should be conducted by suitably qualified professionals in addition to fire crews. That issue will be examined at Phase 2.

The FBU accepts that LFB did not train its firefighters properly in how to carry out 7(2)(d) visits. However the FBU agrees with the LFB that 7(2)(d) visits are not the primary mechanism to initially identify the level of risk associated with any premises. The primary purpose of 7(2)(d) visits is to assist crews to remain familiar with any specific risks associated with the premises and any unusual control measures not generally covered in policy. They are designed to update or confirm any existing risk information.[16] There is therefore no logic at all in such visits not being carried out by operational fire crews, the very people who, at an emergency incident, would rely on the information gathered.

The FBU does not accept the GTI's suggestion that "section 7(2)(d) visits should be conducted by suitably qualified professionals in addition to fire crews". Firefighters are the best-qualified professionals to carry out familiarisation visits, home fire safety checks and fire safety audits. The union believes any moves away from firefighters doing such work will weaken the regime for fire safety and operational preparedness.

The GTI report is scathing about the Operational Response Database (ORD) entry for Grenfell Tower dated 15 February 2017, which contained “minimal, and in places inaccurate, information about the tower itself and no tactical plan for fighting the fire”. In summary there were no plans of the tower, only a small aerial photo, the number of floors was incorrectly recorded as 20, the tactical plan was blank and “the emergency contact details were out of date” (27.30). The report states that these deficiencies in the ORD “rendered it woefully inadequate... Cumulatively they were inexcusable...” (27.31).

The FBU does not seek to excuse the particular gaps and errors in the Grenfell Tower ORD entry. However it would be a mistake to generalise from one failure to decry the whole process by firefighters. The mistakes are indicative of a service underfunded, under-resourced and suffering from a culture of tick-box targets, which is in place across many fire and rescue services. They do not mean the whole institution or the entire workforce had failed.

The FBU has considered carefully the conclusion that “the LFB is an institution at risk of not learning the lessons of the Grenfell Tower fire” (28.55). The LFB has produced a number of lessons learned reports and faced substantial scrutiny from Greater London Assembly members, particularly on its Fire, Resilience and Emergency Planning Committee. The FBU have our own concerns about the LFB’s capacity to listen to the firefighters it employs as well as the communities it serves. However the union does not accept that the LFB is an institution incapable of reform.

3. THE EARLY STAGES OF THE FIRE

The GTI Phase 1 report contains a very useful synthesis of the evidence concerning the early stages of the fire. This combines expert evidence with footage from CCTV and firefighters' thermal imaging cameras to build up a detailed account of the origin and spread of the fire. The FBU accepts the GTI's narrative as the most complete to date.

WHERE AND HOW DID THE FIRE START?

The FBU accepts the GTI's findings that the fire began in flat 16 and that "the fire originated in the large fridge-freezer" (21.2). The union welcomes the chair's dismissal of Whirlpool's suggestion that the fire could have originated from a burning cigarette as "fanciful" (21.26). The FBU also agrees that the fire was accidental and that Mr Kebede in particular bears no blame for what occurred (21.27). The union accepts the GTI's view that it is not possible within the scope of this inquiry to identify the precise defect in the large fridge-freezer (21.30).

HOW WAS THE FIRE IN FLAT 16 EXTINGUISHED?

The GTI's report acknowledges the swift LFB response to the first call, with ten firefighters on scene within five minutes. The report describes firefighters' intervention to tackle the fire in flat 16:

01.01	WM Dowden, CM Batterbee, FF Brown, FF De St Aubin, FF Dorgu and FF Badillo enter the building via the main entrance.
01.03	CM Secrett establishes the bridgehead on the second floor. FF De St Aubin sets up the Breathing Apparatus Entry Control Point.
01.04	FF Dorgu, FF O'Beirne and FF Badillo go the fourth floor and set up the fire hose on the fourth floor.
01.04	BA Team One (CM Batterbee and FF Brown) tallied out at entry control and went to floor 4.
01.08	BA Team One enter bedroom number one in flat 16, search the bedrooms and attempt to enter the kitchen.
01.20	CM Batterbee and FF Brown entered the kitchen and put the fire out.

The GTI's report praises the intervention by firefighters:

> *28.11 There was no suggestion that the response to the fire in the kitchen of Flat 16 could have been materially quicker…*
> *28.12 Thereafter, there was no significant delay in the crews' reaching floor 4, setting in a hose and entering Flat 16... In short, CM Batterbee and FF Brown acted as swiftly as they reasonably could…*

This was supported by Dr Lane, who stated: "The fire and rescue services arrived at Flat 16 and successfully dealt with the internal flat fire — they controlled the internal flat fire using the internal firefighting equipment provided to them".[17]

Despite these efforts, by the time firefighters had entered Flat 16, the fire had already begun to escape from the kitchen into the cladding and further up the building.

THE ESCAPE OF THE FIRE FROM FLAT 16

The FBU accepts the hypotheses put forward by Professor Bisby are the most likely ways in which the cladding had been ignited. These were:

> *a. the impingement on the ACM panels immediately above the kitchen window of flaming and hot gases, either through an open window or through the extractor fan or the extractor fan panel, and subsequent ignition of the external ACM panels;*
> *b. the failure of the uPVC window jamb and attached insulation board allowing fire to penetrate into the back of the cladding cavity where it could ignite combustible materials (22.11).*

The FBU also accepts from the available video evidence that some time before 01.14.06 the fire had entered the cladding (22.35).

THE SUBSEQUENT DEVELOPMENT OF THE FIRE

The FBU supports the GTI's interpretation, backed by its experts Dr Lane, Professor Bisby and Professor Torero that the ACM panels contributed to the rapid fire spread, given the polyethylene core of those panels and its particular properties (23.21). The union also accepts Professor Bisby's opinion that the architectural crown of the building played an important role in increasing the rate and extent of horizontal spread of fire around the building (23.26).

The FBU is satisfied with the provisional conclusions regarding the contribution of some aspects of the design of the cladding system and the geometry of the tower, to the speed of vertical fire development (23.53). The extensive vertical cavities in the columns and the longer ACM cassettes within the columns contributed to the rate at which the fire spread downward (23.58).

INTERNAL PENETRATION AND THE LOSS OF COMPARTMENTATION

The FBU accepts the GTI's identification of three principal routes by which the fire is likely to have penetrated the building from the outside: a. failure of the window glazing; b. failure of the kitchen extractor fans; and c. failure of the uPVC window surrounds (24.3).

The GTI report makes a number of claims about the role of fire doors in fire and smoke spread. The FBU believes Dr Lane's comments are most significant. She concluded that it was likely that the front doors to the flats had failed to control the spread of smoke and flames in the following ways: a. through gaps between the door leaf and the door frame; b. the presence of untested components (including, in a large proportion of the doors, glazing).; and c. failing to self-close effectively after the residents had left (24.23).[18]

Professor Torero argued that the early spread of smoke through the tower was most likely to have been a consequence of flat doors having been left open, rather than having failed while closed due to exposure to heat or flame (24.10).

The FBU accepts the GTI's conclusion that in the early stages of the fire, when flames were accelerating up the east face of the tower, forcing the occupants of "Flat 6s" to leave, a number of the doors to those flats appear to have been left open due to the absence of effective self-closing devices. This may have been the case for Flat 36 on floor 6; flat 76 on floor 10; flat 86 on floor 11; flat 96 on floor 12; flat 116 on floor 14; flat 136 on floor 16; and flat 146 on floor 17. As a result, smoke which had been able to enter those flats was able to get into the lobbies (24.31, 24.32).

The GTI report suggests that firefighters' activities in the first hour of the fire played a significant role in fire and smoke spread. But this was an unintended consequence of the design and layout of the building. To put the fire out safely and stop further fire spread, firefighters had no choice but to connect hoses via the stairs. Similarly, the door of flat 16 (floor 4) where the fire originated had to be broken down to enable

firefighters to gain entry. The report does at least acknowledge that smoke was "limited to the floors on or adjacent to which active firefighting operations were being conducted" (24.36).

The FBU is not convinced by suggestions firefighters' activities in particular contributed significantly to the "hot zone" of smoke and heat entering the stairs between floors 10 and 14. Firefighters clearly had to open stairwell doors to tackle the fire and rescue people. However residents also understandably opened stairwell doors in order to escape the building. Speculation about the causes of internal smoke and fire spread adds little clarity to the fundamental problem that the whole building was covered in flammable cladding and other fire safety measures such as doors, windows, ventilation and lifts all failed.

4. CONDITIONS INSIDE THE BUILDING AROUND 01.30

A central consideration for firefighters when seeking to help residents escape from the fire were the actual conditions inside the tower. There was no means to gain an overview of the whole building nor any means to keep track of constantly changing conditions on the night. However firefighters would have been mindful of the means of escape for all residents before proceeding with efforts to evacuate or rescue people.

The GTI has collected an extensive set of witness statements from residents who survived the fire and from firefighters who entered the building during the first hour. Some residents and firefighters also gave oral testimony, elaborating on the conditions they faced inside the building. The GTI has also collected transcripts from phone calls from people inside Grenfell Tower to the emergency services and to other persons outside.

This evidence paints a harrowing picture of ever-worsening conditions, particularly half an hour after the fire started and from the time the fire had spread from floor 4 to floor 23. This evidence has also been subject to analysis by three experts appointed by the GTI: Dr Lane, Professor Torero and Professor Purser.

The FBU believes that the evidence collected by the GTI, particularly the evidence from residents about smoke, heat and poor visibility, as well as the interpretation offered by the experts, challenges the view that 'mass evacuation' was a viable strategy. Conditions inside the building during the early stages of the fire were not straightforwardly favourable for 'mass evacuation'.

EXPERT ANALYSIS: DR LANE

Dr Lane's supplementary report provides a valuable analysis of smoke reported in lobbies and stairs throughout the building at various times, particularly during the period from 01.19 to 01.38. Dr Lane found that smoke was reported in 14 out of 20 lobbies (floors 4-23) by this time. The smoke reported in these lobbies is described as ranging from hazy and light on floor 22 to thick and black on floor 16. The first evidence of thick black smoke flowing into the stair at floor 4 was reported by residents between 01.19 and 01.38. Residents who escaped from the upper floors during this period "describe the smoke thickening progressively within the stair as they descended".

During this period (01.19 to 01.38) some residents walked up the stairs as a result of conditions lower down on the stairs, either because it was "too smoky" or because they were told by others to "go back". Dr Lane's analysis found thick smoke in the lobbies on floors 6, 10, 11, 12, 15, 16 and 20; as well as thick smoke on the stairs at floors 4 and 5, and thus affected anyone coming down from the floors above.[19]

Dr Lane registered the worsening of conditions between 01.39 and 01.58. The number of lobbies reported to be affected by smoke increased to 15 out of 20; in 10 of these the smoke is described as thick and black. There are fewer resident observations of the stairs during this time period. The situation worsened even further after 01:49 with no evacuations above floor 3 between 01.49 and 02.18. Firefighter evidence describes thick black smoke in the stairs, from floor 3 up to floor 21 during this time. Trying to evacuate residents became very risky during this period.[20]

Dr Lane's conclusions are worth quoting extensively:

> *2.19.1 The conditions in the lobbies created intense fear amongst the residents which is likely to have affected the ability of many of them to leave their flat and descend the stair. As the fire progressed, and conditions worsened in the lobbies, but also directly on the external wall of their own flat, and adjacent flats, it was even more difficult to overcome this fear, even when they were eventually instructed to do so.*
> *2.19.2 The evidence from the residents has emphasised this stark dilemma for them all too clearly.*
> *2.19.3 The residents were left in conditions that appeared life threatening to them. So much so that even with a flame front entering their home or neighbour's home, entering the staircase was believed to be a fatal option. In some cases, this belief appears to have seriously impacted their decision making process with respect to self-evacuation. It is my opinion they required very specific advice tailored to overcome their fear of the lobby conditions, and to be informed, for example, that there was a concerted effort to meet and rescue people in the stairs.*
> *2.19.4 Their experiences created a belief that entering the staircase was a fatal option, specifically:*
> *2.19.5 For some residents they had already experienced conditions in the stairs and considered them to be life threatening and so turned back.*
> *2.19.6 For other residents, they had entered the stairs or approached the stairs, and heard instructions not to go down the stairs at all, and again had turned back…*

2.19.8 There were substantial signals of danger to residents, and to firefighters. This included large quantities of thick smoke impacting sight and breathing immediately outside flat entrance doors, intense heat outside flat entrance doors, heat and smoke within the stair itself; rapidly advancing fire and smoke entering flats from the external wall, and ultimately horrific and rapidly increasing numbers of fires for the residents to attempt to escape away from within their own flats.[21]

EXPERT ANALYSIS: PROFESSOR TORERO

Similarly, Professor Torero in his revised Phase 1 report created a useful smoke movement timeline for the first hour of the fire, based on the calls made by residents inside the building to LFB control and other emergency services.[22] The comments made by residents are indicative of rates of internal smoke spread.

Time of call	Evidence	Caller
01.21	*No, we can smell smoke from the – this side.*	Flat 195, Floor 22
01.24	*I can't breathe… Yeah, the fire in the kitchen(?)!*	Flat 96, Floor 12
01.25	*Smoke. I can't get out. I'm tried to open the door and there's a lot of smoke*	Flat 111, Floor 14
01.26	*Yes, it's coming through the floor – from our main door because it's outside*	Flat 95, Floor 12
01.28	*There seems to be smoke, like… outside the in the flat I guess but its – the smoke is coming into the house.*	Flat 73, Floor 10
01.28	*If I open the door there's smoke on the landing.*	Flat 82, Floor 11
01.29	*There's like smoke on our floor. I think it's the building, like right next, the house right next to us. We don't know what to do.*	Flat 142, Floor 17
01.29	*It's completely smoky outside.*	Flat 201, Floor 23
01.30	*There's smoke everywhere. You need to get right to the top.*	Flat 205, Floor 23
01.30	*You can't see a hand in front of ya*	Flat 194, Floor 22
01.30	*Yes, and there's all smoke now.*	Flat 195, Floor 22
01.30	*Oh, it's below us? Okay, because the smoke's… coming into my flat. What do I do?*	Flat 175, Floor 20
01.32	*There's a lot of smoke in the flat and in the building and –*	Flat 155, Floor 18

01.33	*It's inside of the room.*	Flat 8, Floor 11
01.33	*I tried to get out to go through the fire escape and there's just thick black smoke.*	Flat 152, Floor 18
01.33	*It's just getting worse outside.*	Flat 82, Floor 11
01.34	*We couldn't get down the stairs, because the stairs is full of smoke.*	Flat 192, Floor 22
01.37	*But there was so much smoke in the, in the corridor, we just ran back inside and close the door.*	Flat 133, Floor 16
01.37	*It's coming from this corridor, the whole corridor, the whole corridor's black, we tried to run out and there's smoke…*	Flat 113, Floor 14
01.38	*Not safe to go outside. So -- No, it's all smoke*	Flat 95, Floor 12
01.38	*We tried to go downstairs, I just think it's too smoky.*	Flat 182, Floor 21
01.38	*OPERATOR: Where is the smoke coming in?* *CALLER: Yeah, it's under the door. Yeah.*	Flat 115, Floor 14
01.38	*Smoke is coming in because I smell it under (inaudible… it's not much come in, but I can't go outside because I can't see outside at all.*	Flat 204, Floor 23

EXPERT ANALYSIS: PROFESSOR PURSER

Professor David Purser's report also highlighted the barriers faced by residents in leaving the building. Again, the FBU regrets that the GTI report ignores those comments. He wrote:

> *150. During the fire rapid smoke filling of the lobbies was reported on many floors over a short period of a few minutes. Although the timing and filling rate varied somewhat on different floors, my preliminary analysis indicates that rapid smoke filling of the lobbies most likely occurred over a period from approximately 01:20-01:35 hrs…*
> *154. From my analysis of witness statements by flat occupants so far, my preliminary view is that that rapid filling of the lobbies by dense smoke from around 01:30 hrs was a major deterrent and obstacle to occupants attempting to escape from their flats. Some decided not to enter the smoke and remained in their flats. Others felt their way to the stair entrance door through dense smoke, some returning to their flats and succeeding only after more than one attempt.*[23]

Professor Purser also explained the impact of toxic smoke:

> *265. Based on this assessment it is my opinion that if as little as 5% of the combustion products from the burning PIR outside each flat penetrated the flat after the flames reached the flat exterior but before the windows failed, then the flat would be filled with very dense smoke and almost zero visibility. This would result in some immediate distress and breathing difficulties. If the flat occupants did not evacuate immediately, then after a few minutes exposure (between approximately 2-25 minutes depending up on the exact conditions), they would collapse unconscious due to the combined asphyxiant effects of inhaling CO and HCN.*[24]

It is now known that smoke overcame a number of residents in the lobbies early in the fire. Residents who used the lift and escaped the building at 01.26 explained how it had stopped at floor 10 and become stuck. Tragically it seems that three residents who were also travelling in the lift stepped out into the lobby (10.215). Their bodies were later recovered from floor 10 by firefighters (10.224).

The resident from Flat 134, floor 16 tried to reach the stairs via his lobby, using a wet towel to cover his face. He described the situation in his witness statement:

> *13. I was now in sheer panic. I started to use both hands to try and find the way out, I was running my hands along the wall but not finding the door... I started to inhale the smoke. I thought to myself "shit man, this isn't going to end well for me'. I thought I was about to die. Just then I felt someone tapping on the right side of my leg, I looked down and that's when I realised that the smoke was much thinner on the floor. I could see a fire fighter, lying on the floor. He was lying face down across the threshold of the doorway with his legs out in the stairwell... I think I was in the hallway outside my flat for less than fifteen seconds, probably more like five seconds. I don't think I would have survived for fifteen seconds... I feel the firemen must have saved me as I was taking my last breaths. I think he was lying on the floor when he grabbed me.*[25]

Having been assisted to the stairs, he was then able leave the building by 01.34.

At around the same time residents from Flat 44, floor 7 made it across their lobby and onto the stairs. However when they reached the fire floor they reacted to the smoke by turning around and returning to their flat. As the adult woman resident explained candidly in her witness statement:

22. There was so much smoke. I could see thick, black smoke pouring out of the door from the fourth floor landing into the stairwell, as the fourth floor landing/fire door was being held open by the fire fighter and his hose. The smoke hit me in the throat; it had a powerful and poisonous smell.
23. When I saw the smoke, I expected fire to also be there. I panicked thinking that there might be fire coming into the stairwell…
24. I called ahead to my husband. I shouted at him, three times, "Come back! Come back! Come back!" He turned around immediately and then we began to run to back up the stairs to our flat.[26]

This was confirmed by the adult male resident:

11. Eventually, I came to the landing between the 5th and the 4th floors. By this stage there was a large amount of smoke in the stairwell and it was heavy and coloured black... There was thick, acrid black smoke pouring out of the door he was holding open. It was filling the stairwell at that level. It was unbelievable.
12. I heard my wife shout behind me "Stop! Come back!" or similar words. She shouted about three times... We ran back to our flat in a rapid time frame.[27]

Fortunately, firefighters knocked on their door and directed the family to leave the building, which they were able to do by 01.48.

Evidence provided by the residents themselves would indicate strongly that their means of escape was compromised very early in the fire. Some of those who subsequently died and some who later did escape had already had contact with the emergency services. A number had already told control staff, the police and their relatives that they had attempted to leave the building, only to be put off by smoke in the lobbies or on the stairs.

PEOPLE INSIDE THE BUILDING

Firefighters are taught from the earliest stages of their initial training that the number one priority of the fire and rescue service at any incident is to save people's lives. Witness statements and their testimony to the inquiry underlined the priority firefighters gave to helping people survive the terrible fire. Putting out the fire is the first thing firefighters can do to keep people safe. If the fire spreads, the means of escape for residents can be compromised, making it much harder to get out, even with assistance.

Responsibility for the residents' safety lies ultimately with the owners and managers of the building. This is particularly true in high rise residential buildings, where the safety of individuals is much more interdependent than in a separate house. The GTI Phase 1 report does at least point out that the KCTMO's emergency plan was fifteen years out of date (30.93). The report indicates that no information on the number of people actually living in Grenfell Tower at the time was provided to firefighters until much later into the incident.

There was nobody from the council or KCTMO in the early stages of the fire to advise firefighters on the profile of residents, their particular needs, disabilities or health conditions that would require special provision. The LFB's Operational Risk Database (ORD) for Grenfell Tower estimated 400 people might be in the building at night and therefore at risk.[28]

The GTI report states that there were 297 occupants of the tower at the time the fire started. Of those, 112 had left the building by 01.30. A further 36 successfully left in the following 10 minutes. By 01.40, nearly half of the 297 people who had been in the tower at 00.50 had left. A total of 152 occupants remained inside the building. A further 20 occupants left the tower between 01.40 and 01.50. After 01.50 there was a period of 29 minutes during which no one from above floor 4 left the tower. By around 02.00, 129 people remained in the tower. With the exceptions of Flat 9 on floor 3 and Flat 23 on floor 5, which were shortly to be evacuated, all the flats on floors 1 to 8 were empty. With the exception of floor 13, people remained in flats from 9 to 23 floors (11.24, 12.32, 14.124).

Firefighters faced huge uncertainties about the number of residents long into the fire. Some flats were empty, with some residents out for work, holiday, visiting family, leisure or religious commitments. As late as 05.50, incident commanders still believed that 115 people were unaccounted for (20.13). In fact by then there were still 67 residents in the building, but only two could be rescued on the night.

Firefighters in the early stages of the fire had very little intelligence about where exactly people were located in the building. Chapter 14 of the GTI report shows that an hour after the fire started a significant number of people were still on the upper floors of Grenfell Tower. These included:

- Twenty-nine people were sheltering in five flats on floor 23, some of whom had walked up from lower floors
- Fourteen people in three flats on floor 22
- Twelve people in three flats on floor 21
- Nine people in three flats on floor 20

- Two adults in one flat on floor 19
- Nine people in two flats on floor 18
- Five adults in one flat on floor 17.

Firefighters had very little knowledge about the particular needs of vulnerable people still in the tower. However the report now shows:

- On floor 23, women and men in their 60s and 70s, a woman with breathing and mobility difficulties, another woman who also used a walker and five children
- On floor 22, two people in their 60s as well as six children
- On floor 21, a woman in her 70s and five children
- On floor 20, a woman in her 70s and three children
- On floor 19, a frail woman with dementia
- On floor 18, five children
- On floor 17, two adults in their 60s and 70s.

On floor 16 there was a man with dementia and mental health problems, on floors 15 and 14 men with emphysema, and on floor 11 an elderly blind man. Shortly after 02.00 firefighters were able to rescue a disabled woman and her family from the third floor.

In hindsight, it is clear that many residents trapped on the upper floors faced a very difficult route to safety by themselves. Only three people escaped from the top floor and only two from floor 22. It is clear that many of those more able to escape by themselves had caring responsibilities for older adults and/or young children. Understandably they were not prepared to abandon them in order to escape. It is not at all clear that any exhortation to leave the building would have been sufficient to persuade them to leave unaided.

5. WAS 'MASS EVACUATION' POSSIBLE ON THE NIGHT?

The central thread running through the GTI's Phase 1 report, including the narrative and especially chapter 28, is the claim that Grenfell Tower should have been evacuated. The report states:

> *28.5 Once it was clear that the fire had spread out of control, that compartmentation had extensively failed, but that evacuation remained possible, a decision should have been made to evacuate the tower…*
> *28.6 There came a point when it was, or should have been, reasonably obvious that operational responses to individual FSG calls were, or were likely to be, ineffective and that the stairs would remain passable for only a limited period of time. In those circumstances, it was, or should have been, obvious that only a supervised mass evacuation would minimise the number of casualties. That point had been reached by 01.30 at the earliest and by 01.50 at the latest. The result is that by 02.47 when the "stay put" advice was withdrawn the best part of an hour had been lost without any evacuation plan having been considered.*

The FBU does not accept the GTI's conclusion that a decision to 'evacuate' should have been taken at 01.30 (or at least by 01.50). The GTI has not made sufficient allowance for the actual conditions inside the building for what in reality would have been much more than simply an evacuation. For the initial commanders, during the first hour of the fire, it was not clearly established "that compartmentation had extensively failed, but that evacuation remained possible".

ASSUMPTIONS ABOUT THE BUILDING

It is easy in hindsight to say that the "fire had spread out of control" and that "compartmentation had extensively failed" half an hour after the LFB had been alerted to the fire. However making that judgment was much harder on the night.

First, although flames had spread from floor 4 to floor 23 at Grenfell Tower by 01.26, it was not clear that fire would spread over the crown of the building nor that it would break back into the building on multiple levels. Some of the worst international examples of external fire spread certainly saw flames affecting almost the entire side of those buildings, but very few examples saw either fire spread over the top across

to other sides or extensive fires spreading back into flats. As Professor Torero points out, many ceased to burn extensively once they reached the top of towers through lack of fuel.

When the GTI states that the “fire spread out of control” and that “compartmentation had extensively failed” by 01.30, such a conclusion would have surprised even the most experienced firefighter. The expectation would have been that windows and their surrounds would resist fire spread and that fire doors and other measures would limit the internal penetration of flames and smoke. Firefighters on scene had no means to verify the extent of fire spread at this early stage.

ASSUMPTIONS ABOUT THE MEANS OF ESCAPE

But any firefighter considering evacuation would have other concerns, notably whether there was a safe means of escape for residents. If 01.30 was the time when the fire went out of control, then it was also the time when evidence began to mount up that the means of escape may have been compromised by smoke.

When the GTI states that the “stairs remained passable” at this time, it underestimates the barriers over the entire route of escape that residents faced. For most, the means of escape consisted of two steps: leaving their flats to enter the lobby and then reaching the stairs through that lobby.

Those residents who managed to reach the stairs at 01.30 were able to leave the building. However it is clear from the witness evidence that many residents attempted to do this but still turned back because of conditions in their lobbies. Even those who took precautions, such as covering their faces, experienced difficulties before and immediately after 01.30.

EVACUATION OR RESCUE

The FBU believes the GTIs uses the term ‘evacuation’ too loosely in the report. There is an ordinary language sense of evacuation, where residents are able to leave the building of their own volition. This is regarded by firefighters as self-evacuation,

because residents will often do this without any contact or interaction with firefighters or emergency control staff.

However in the fire and rescue service, evacuation has a particular meaning. The Home Office defines an evacuation as "the direction of people from a dangerous place to somewhere safe", while a rescue is "where a person has received physical assistance to get clear of the area involved in the incident".[29]

Firefighters also make a distinction between planned emergency evacuations and evacuations that follow a predetermined plan, like a fire drill in a workplace. This is different from an emergency evacuation, which takes place where there is no plan or where the existing plan is not viable.

When the GTI speaks of 'supervised mass evacuation', in reality it is demanding a series of mass rescues, in which firefighters would have to clear floors and physically assist many residents to leave their flats, cross their smoke logged lobbies and descend smoky stairs.

HOW WAS 'MASS EVACUATION' SUPPOSED TO BE ORGANISED?

The GTI report claims that a 'supervised mass evacuation' was practical between 01.30 and 01.50. It states:

> *28.32 Any plan would have required two practical elements: informing the occupants that they must make every effort to leave with the assistance of firefighters and deploying firefighters to inform the occupants that they must leave and to assist them in doing so.*

The GTI seems to accept the difficulties of informing occupants without a reliable means of communication. Grenfell Tower had no alarm or public address system serving the whole building. Firefighters used a loudhailer to reassure residents, including the message: "This is the fire service. If you are able, exit the building" (11.34). The GTI accepts that "All these methods of communication would have been essentially improvisations and would probably have been unreliable to some extent" (28.33).

Similarly, although some residents within Grenfell Tower had managed to speak to LFB control staff or other emergency services, this was not sufficient for a mass evacuation. The transcript of a call at 01.28 between the occupants of Flat 73, floor 10 and the Metropolitan Police illustrates the difficulties. The last exchange was:

MPS Operator: Okay. Do you want to evacuate. Evacuate the building, please.
Male Caller: Evacuate the building?
MPS Operator: Yeah. Evacuate. Get everybody out. Get everybody out. And get everybody out.[30]

The residents of the flat did not evacuate at that time. Another occupant called LFB at 01.41 and explained "obviously, the thing is we can't evacuate because it's pitch-black outside".[31]

The GTI's 'supervised mass evacuation' strategy still effectively boils down to firefighters' intervention into the building. It states:

28.38 The second possible route to achieving communication with occupants to effect a full evacuation would have been through the physical deployment of firefighters into the building both to inform occupants that they needed to leave and to assist with evacuation where necessary.

The GTI report is contradictory on this point. It does not accept Dany Cotton's view of such a procedure as a "door-knock" (28.37), but then quotes SM Daniel Egan's witness statement, which states that knocking on doors would have been for a full building evacuation. SM Egan stated:

[firefighters] would systematically go through a couple of floors at a time, with crews going along, banging on doors, giving people a chance, you know, trying to cajole them out if they was in there.[32]

Any approach going floor by floor would inevitably be very resource intensive. Some people may still be asleep. Others would have mobility or other vulnerabilities that make swift movement in smoky conditions far harder. The presence of older people and young children would be a major consideration in smoky conditions.

ASSUMPTIONS ABOUT TIMING

The GTI report suggests that the decision on 'mass evacuation' should have been taken by 01.30, or by 01.50 at the latest. This time frame appears to have been selected because of the extent of the fire. However any decision would also have to take account of the means of escape.

In her first Phase 1 report, dated April 2018, Dr Lane argued that:

> *20.6.6 In analysing these figures, after the event, it is clear to me that the window from 00:58 to 01:40 was when the total evacuation of Grenfell Tower needed to occur.*[33]

There is strong evidence from residents and firefighters inside the tower that conditions deteriorated significantly from 01.26 and were extremely arduous by 01.40. If so, then the incident commander would have had to make the decision very early, improvise a strategy and get firefighters to implement it within 15 minutes. At the time, the building still contained more than 150 people and as far as firefighters would have known, potentially another one hundred people.

CONTRADICTIONS IN THE GTI'S REPORT

The GTI makes a number of qualifications to its 'mass evacuation' proposal. The report admits that no expert firefighting evidence was received on the approach of the LFB at the Grenfell Tower fire (28.5). It states that "Mass evacuation of the occupants of the tower would no doubt have presented serious risks to the lives of both residents and firefighters" (28.7). The GTI doubts that "there was a sufficient number of firefighters at the scene by 01.30 to have allowed a safe and efficient assisted evacuation of all of the tower's occupants" (28.18). Finally the report admits that there was "very little practical guidance" on how to go about a mass evacuation (28.34).

The FBU believes that these caveats, along with the substantial evidence from residents and firefighters, undermine the argument for 'mass evacuation' on the night. There was no prior planning guidance to carry it out. The LFB had not developed standard operating procedures for carrying out this type of 'mass evacuation'. The resources necessary for such a strategy were not worked out. Firefighters were not trained to implement this type of 'mass evacuation', especially not in the middle of a very rapidly spreading fire. In such circumstances, improvising such a strategy in the heat of the moment would make no sense.

At 01.30 there were only 30 firefighters on the fireground. Only four BA teams (eight firefighters) had entered the building, two of those to extinguish the fire in Flat 16 and then withdraw. By 01.40 there were still only 61 firefighters present. At 01.30 there were no firefighters with extended duration breathing apparatus (EDBA), the first would arrive at 01.35. No command unit had arrived that might have facilities

to organise an evacuation – the first would arrive just after 01.30 (and in any case would take several minutes to set up). There was no turntable ladder that might be used to limit the spread of fire in certain parts of the building and thus provide some temporary place of safety for those on the upper floors. The first turntable ladder arrived at 01.32 and again inevitably took time to set up safely. By the time these resources were in position and operational, the window for evacuation had effectively closed.

6. UNFAIR CRITICISM OF INCIDENT COMMANDERS

The GTI Phase 1 report is structured around the hypothesis that 'mass evacuation' was the right decision from 01.30. The FBU believes this ignores vital evidence, mostly derived from the residents themselves, that such an attempt would have been highly problematic. Because the GTI believes this 'mass evacuation' was the best option, it is highly critical of the incident commanders in the first two hours of the fire for not making this decision to 'evacuate' or for not abandoning the 'stay put' policy. Much of the report criticises WM Mike Dowden on these grounds. The report states:

> *28.15 The information objectively available by 01.30, certainly when taken cumulatively, ought to have caused WM Dowden to consider whether an alternative strategy to firefighting should be adopted, and specifically, whether the building should be partially or wholly evacuated and, if so, how. By 01.30 it was or should have been obvious to WM Dowden that the external fire had reached the crown, that there was at least a significant risk that the fire would penetrate the interior of the building, given the strength and speed of its development, that firefighting measures were failing to contain or extinguish the external fire, and that residents (some of whom were suffering from the effects of smoke inhalation) were leaving in substantial numbers.*

The FBU rejects these criticisms of incident commanders. The GTI has not taken into account the contradictory situation facing incident commanders nor the resources at their disposal when faced with an unprecedented fire. The GTI took no expert opinion from anyone familiar with firefighting practices, yet appears to believe it knows enough to redirect high level firefighting practice in retrospect. This is unjust criticism in hindsight, without the support of evidence or expert advice and which fails to take into account the real challenges facing firefighters on the night.

WM Dowden was sent to a fire in a single flat on the night of the fire. He made professional decisions to tackle that fire and the unanticipated way in which it spread, as indicated by the LFB timeline:[34]

Time	Incident command decisions
00.59	WM Dowden examines operational risk information and prints the tactical plan.
01.00	WM Dowden discusses the situation with Mr Kebede at ground floor level. WM Dowden briefs CM Secrett to set up the bridgehead on the second floor.
01.05	WM Dowden informs oncoming firefighters that they would need BA on arrival.
01.06	WM Dowden notes the fire had breached the flat 16 window: orders covering jet.
01.12	WM Dowden asks CM Davies to formulate an informative message, to explain to control and anyone monitoring the 'Airwave' radio about the incident. WM Dowden notes that the external cladding burning. He orders 'Make Pumps Six and One Hydraulic Platform'. WM Dowden tasks firefighters to lay out a ground monitor at the East elevation.
01.13	WM Dowden details WM O'Keeffe to manage the bridgehead on second floor.
01.18	WM O'Keeffe contacts WM Dowden and suggests 'Make Pumps Eight'.
01.23	WM O'Keeffe contacts WM Dowden and informs him that he requires additional BA wearers and ECBs. He suggests making pumps 10.
01.27	WM Dowden orders 'Make Pumps 15, Aerial Ladder Platforms 2'.
01.28	WM Dowden orders a 'Persons Reported' message to control.
01.29	WM Dowden and WM Watson discuss the incident resourcing and agree it requires 20 fire engines and two FRUs. WM Dowden notices a large quantity of debris falling from the tower and orders the crew working the covering jet (FF Murphy and FF Cornelius) to move back. WM Dowden realises that the jet was having no effect on the fire. He orders the crew to turn off the covering jet and report to the bridgehead wearing BA.
01.31	WM Dowden orders 'Makes Pumps 25'.
01.33	SM Loft and WM Dowden discuss incident command. They agree that the FSG calls take priority and that SM Loft would manage the FSG calls.
01.36	WM Dowden instructs CM Wigley (Paddington FRU) to get a line operations system working from the roof to establish a drencher system to put the fire out from the outside.
01.42	Paddington's TL pitches outside the South elevation. This is only possible because WM Dowden had previously tasked CM Davis to secure a separate hydrant to connect to a fire engine that only supplies water to the turntable ladder.
01.50	WM Dowden discussed incident command with SM Walton, before handing over the IC tabard.

WM Dowden was subjected to intense questioning over three days by the GTI, often asked about LFB policy matters well above his rank. He was also questioned minutely about his decisions on the night. The GTI acknowledged he had given his evidence "with courage and candour and without shying away from the difficult questions".[35]

WM Dowden emphasised that his primary purpose as incident commander was to save life. He explained how his decisions were informed by his experience, LFB policy and training, and his situational awareness on the incident ground. He also made it clear that as a watch manager, he had planned and trained for a four-pump fire, but would have expected far more senior officers to take over incident command beyond that stage.[36]

WM Dowden also laid out the constraints facing firefighters at Grenfell Tower, including: the failure of the lift override to allow firefighters to control the one remaining lift that was working, the limitations of the dry riser in terms of its placement in the lobbies rather than the stairs and the limited water it could provide, the limits of the automatic opening vent (AOV), the single, narrow stairwell and other building failures.[37]

WM Dowden was asked about the situation in front of him. He had a clear memory of people exiting the block and people subject to smoke inhalation. Even before the fire in flat 16 was extinguished he would have seen people coming out coughing, spitting and covered in soot. This would indicate that the means of escape was not secure. After 01.30 more residents would emerge with similar reactions. Residents themselves have described the scene graphically as they exited the building:

Exit time	Residents' evidence
01.19	*21. When I got out of the building, I was spitting black stuff. I was coughing as I went down the stairs but I covered my mouth with my clothes and covered my sister's face with my robe.*[38]
01.20	*33. I think I went into shock very soon after getting out of the building… I started crying and… decided that we should both get away from the area.*[39]
01.26	*I was crying and shouting and calling for my father… as you can see, my face was full of marks of the smoke and it was black… and even inside my mouth… [clothes] were a bit smoky from the smoke.*[40]
01.27	*29. When I got out of the building I started coughing. I think this was due to the smoke… The cough was a very deep cough. I felt smoke in my throat and when I spat out the spit was dark.*[41]

01.29	*22. I had no shoes or slippers on my feet and that I was in my nightdress. I was so very upset and distressed. I could not quite believe what I was looking at and all the people still trapped inside. My daughter took us to hospital as we had inhaled a lot of smoke; my son is also asthmatic.*[42]
01.31	*65. My wife became hysterical due to what we had been through and she started to scream. My daughter was now awake having woken up whilst we were coming down the stairs.*[43]
01.32	*As we got out of the Tower, my daughters started crying and screaming as they saw the fire. They started saying 'Our building is burning', 'Our home is burning'. It took a few minutes to calm them down and reassure them that everything would be fine. They were terrified.*[44]
01.35	*29. My father was really out of breath when we got out of the Tower so I tried looking for somewhere to sit him down.* *30. He sat down on a concrete chair. He was shaking, out of breath, sweating and looked completely exhausted.*[45]
01.35	*24. I walked around in a daze… I was very, very dirty with soot and I was talking complete rubbish.*[46]
01.35	*60. I saw [my husband] coming out of the door. He was covered with soot, he was barefoot. He was disoriented and didn't seem to know where he was. He was going from side to side he couldn't walk…*[47]

In truth, WM Dowden was right to describe this as an "almost impossible situation". With situational awareness, he would have seen residents leaving the building in such a state as to suggest that the means of escape were not secure. Such warning signs would mitigate against any hasty decision to call a 'mass evacuation'.

The GTI asked WM Dowden if he had any thoughts about the stay-put advice and evacuation. He explained that to evacuate the building at 01.30 would have been "very, very difficult". He stated:

> *I would say not at that point, but I think it's important to clarify, I think around that sort of time I only had six -- from looking back at the Vision log, we had six fire appliances in attendance at that time. From my understanding, most of them, you know, were consumed in terms of the BA resource at the bridgehead. For me, at that moment in time, to facilitate and change a stay-put policy to a full evacuation was impossible. I didn't have the resource at that time. We're looking at 20 floors above the fire floor with just six fire engines in attendance, one central staircase. It's something I've never experienced as an incident commander before.*[48]

Instead, his strategy as more firefighters began to arrive was "to try and get as many people into that tower as we can as BA wearers to perform as many rescues as possible".[49] WM Dowden did command a partial evacuation of the building, by directing BA crews to rescue FSG callers, as these were perceived to be the persons at greatest risk from the unprecedented and erratic fire.

CRITICISM OF OTHER INCIDENT COMMANDERS

The central criticism of the officers who became incident commanders for the next hour of the fire is essentially the same as the criticism of WM Dowden: namely that they did not carry out the 'mass evacuation' strategy the GTI has invented in hindsight. No 'mass evacuation' strategy had been prepared for at the time. In fact, more than two and a half years after the fire, no authoritative, national 'mass evacuation' strategy has been developed, despite demands by the FBU and others in our urgent recommendations. The fact that GTI's own recommendations insist central government should develop guidelines (33.22a) underlines the absence of strategy. The reality on the night of the fire was far more difficult, less 'obvious' and more fraught with uncertainty than the GTI allows for.

The GTI report makes some very scathing, personalised criticisms of incident commanders, particularly by juxtaposing the memories of other firefighters and other emergency responders to question the officers' recollections. This is divisive, unhelpful and personally very hurtful to those incident commanders who were faced with a situation for which they were neither prepared nor trained nor resourced to tackle.

On arrival, SM Andy Walton found WM Dowden still in command almost an hour into the fire. SM Walton was briefed by WM Dowden and took over incident command for a very short time. There was no disruption to operations caused by the handover, officers continued the vital work of getting firefighters into the building to assist residents, the first priority for saving life. In his oral evidence, SM Walton explained that he gave instructions for BA crews to confirm if the fire was re-entering the building and spreading, and whether the internal conditions on the escape route were trapping residents. He asked for information from BA crews regarding the resources needed to prevent or slow down the fire re-entering the building or spreading internally and what would be needed to rescue all those confirmed trapped.

Although SM Walton had more resources to commit, he faced a worsening situation, particularly with regard to the means of escape. We now know that no residents self-evacuated during this time. After relinquishing command minutes later, SM Walton went on to other important tasks, including organising BA wearers and assisting casualties.

DAC Andy O'Loughlin took over from SM Walton and was also briefed by WM Dowden. (GM Richard Welch had assumed command at this time without knowing more senior officers had arrived. He made pumps 40 and declared a major incident.) DAC O'Loughlin requested further resources, notably command units and FRUs with EDBA. During his period in command, firefighters carried out a significant number of rescues, despite deteriorating conditions inside the building. This was a period where residents did not evacuate themselves from the building of their own volition. Although he had more resources to commit, he faced a worsening situation, particularly with the means of escape compromised by smoke.

The incident commanders in the first hours of the fire faced what WM Dowden described as an "impossible situation". They committed firefighters into the building as swiftly as they could. As Dr Lane points out, "between 01:40 and 02:35 the number of firefighters present in the fire sector rose to a peak of 28 at approximately 02:15".[50] However by the time it was clear compartmentation had significantly failed, the means of escape was therefore compromised and it was too late to call a 'mass evacuation'. SM Walton also captured the dilemma they faced:

> *So we were in a catch 22. There was no escape route for the people to use themselves, they had to be rescued, and we had to try and maintain that pathway for us to carry out those rescues, let alone those people to try and use it themselves. So that meant the firefighting was essential.*[51]

Faced with this terrible situation, incident commanders and other officers had to improvise as best they could in entirely unprecedented circumstances. Incident commanders sent crews into the building to establish the conditions for escape and assist residents to leave. They deployed 78 separate breathing apparatus teams in the course of the night until the last living resident was rescued, just after 08.00 in the morning. More than 200 firefighters were sent into the building in breathing apparatus – some making multiple wears – to extinguish the fire and to rescue people.

The GTI report suggests that incident commanders simply needed more self-assurance:

28.28 To evacuate a building of this kind in the face of an established "stay put" policy would have required a cool head and a great amount of self-confidence.

The report argues in hindsight that incident commanders should have disregarded standard operating procedures, ignored their training, with few resources and no plan, gambled by announcing 'mass evacuation' and then hoping more people would get out of their own volition. If incident commanders had gambled and people had died trying to escape, the public inquiry would now probably be chastising them for disregarding their procedures and training. Blaming incident commanders is not the way to secure justice for Grenfell.

7. UNFAIR CRITICISM OF EMERGENCY CONTROL STAFF

On the night of the Grenfell Tower fire, 11 LFB control room operators were on duty at Stratford, London's back up control room. They took hundreds of calls on the night, including more than 150 FSGs. Control staff in North West Fire Control, Essex, Kent, Surrey and Merseyside also played an invaluable role. The GTI's Phase 1 report recognises this:

> *29.1 It cannot be doubted that CROs saved the lives of many, and some of the residents of Grenfell Tower have been able to express their gratitude to the CROs who helped them.*

LFB control staff carried out their professional duties diligently throughout the duration of the fire. In the early stages they mobilised firefighters and alerted other agencies.

Time	Control staff action
00.54	CRO Pamela Jones took a call from Behailu Kebede reporting a fire at Grenfell Tower. CRO Jones confirmed the address and asked how many floors there were in the building, to which Mr Kebede replied "*four*".
00.55	CRO Jones entered the relevant deteils from the caller onto a call collection form on the 'Vision' system. The PDA was automatically selected for a fire in a residential dwelling" three fire engines.
00.57	CRO Christine Howson took a call from a remote monitoring company Tunstall Response. The operator confirmed that an Automatic Fire Alarm had actuated at Grenfell Tower.
00.58	AOM Peter May at Brigade Control saw the incident on his 'Vision' screen and observed that the address was given as a tower. He amended the incident code to a fire in a high rise building, which triggered an additional fire engine.
01.00	SM Andrew Walton was paged by Brigade Control and informed about the fire at Grenfell Tower as the closest officer at this rank on duty to the incident address.
01.15	Brigade Control paged WM Matthew Leaver, a Fire Investigation Officer, to inform him there was a fire in progress at Grenfell Tower.
01.23	AOM Deborah Real phoned Thames Water Authority to inform them of the fire in progress at Grenfell Tower and ordered a water services technician.

01.27	Brigade Control request best approach road for officers. SM Walton was having difficulty finding a route to the incident due to the amount of road closures.
01.29	AOM Real called the London Ambulance Service and asked for their attendance.
01.50	CRO Yvonne Adams called on a landline to the mobile phone allocated to CU8 in order to pass on FSG calls. Whilst this is normally done by message, a call was easier and quicker in these circumstances.

Within half an hour of the first call, the control room was overwhelmed with calls from the public, including residents inside the tower. This was clear from the number of calls that began to be diverted to other fire control rooms and to other emergency services. The GTI report acknowledges the long duration calls in the first hour:

> *13.103 By this point, there were three CROs in the LFB control room who were on long FSG calls. CRO Russell had started a call with Jessica Urbano Ramirez in Flat 201 on floor 23 at 01.30 which lasted for 55 minutes until 02.25. CRO Jones had started a call with a member of the El Wahabi family in Flat 182 on floor 21 at 01.38.38, which lasted approximately 59 minutes, until 02.49. CRO Duddy had started a call only three minutes earlier, at 01.54.14, with Roy Smith in Flat 95 on floor 12, which lasted for 40 minutes until 02.24.*

EVACUATION ADVICE

The GTI report is scathingly critical of control staff. It states:

> *29.60 The failure of CROs to assess the prospects for escape in accordance with the policies had two potential consequences in the period before the "stay put" advice was changed. First, occupants may have stayed in their flats when they could have escaped to safety, even though the conditions in the lobbies and stairs were increasingly hostile after around 01.40 and certainly much more difficult after 02.00. Secondly, the incident ground was told that all 999 calls from the tower were FSG calls and that occupants therefore needed rescuing, whereas some could in fact have escaped without assistance. That could have led incident commanders to adhere to the strategy of responding to FSG information relating to individual callers for longer than might otherwise have been the case.*

This is a variation of the criticism made of incident commanders on the fire ground for not calling a 'mass evacuation'. The criticism is particularly confusing when

raised against control staff, because they were not present at the fire and therefore in no position to give residents definitive advice on whether to leave their flats at any particular moment during a call. Control staff cannot be expected to second guess conditions in particular flats, floors, lobbies and stairs and whether the means of escape is viable or not. They would be gambling with people's lives if they advised them to leave without more clarity from both residents and professional firefighters on the fire ground. The ultimate decision to leave quite rightly lies with the persons directly affected themselves.

LFB POLICIES

The GTI report understandably criticises the LFB and its policies, PN790 and PN539, for failing to prepare control room operators for a fire of this magnitude. It also registers that LFB control staff were working from the back up facility at Stratford with fewer resources and equipment than usual (7.16, 7.20).

However the GTI report fails to put these issues into a national context. First, control staff have suffered the worst cuts of all firefighters since the onset of austerity. Across England, the number of control staff peaked at 1,633 in 2009, before falling to a low of 1,119 at the time of the Grenfell tower fire, a 31% cut. In London, control staff over the same period dropped 12% by headcount, but 18% by full time equivalent.[52] Second, national operational guidance for high rise firefighting in general and for control staff in particular was inadequate.

Third, control staff faced real technological problems in call handling, which they have long complained about. The GTI notes that the main obstacle in the way of calling back previous callers was that only the numbers of the last four callers were readily accessible on the Vision system (29.107). But the Vision system has other flaws, which the FBU's Control Staff National Committee warned about in our *Losing Control* report, published in May 2017.

CONTROL STAFF SINGLED OUT FOR CRITICISM

The GTI concludes that the CROs' handling of FSG calls was "unsatisfactory" (29.53). The FBU rejects the GTI's criticism of emergency control staff, who did their professional duty on the night when faced with an overwhelming volume of calls, including the number and duration of FSG calls never experienced before.

Chapter 29 of the GTI's report constantly names individual CROs and personally scrutinises every word they uttered, right down to the micro level phrases and expressions used over hours of conversation. It itemises what it believes to be individual decisions made in a highly pressured, real time situation. The often personalised criticism of control staff for their language seems unduly petty. Control staff tried to provide support to residents in unimaginably difficult circumstances. Their words were not designed to give false hope: they were acts of human kindness towards people suffering in appalling circumstances.

The GTI report ignores the severity and sheer volume of the calls being dealt with by control staff. There seems to be no recognition throughout that this was not the only incident ongoing. The advice being given by the CROs would ordinarily have been sound advice had the building behaved the way it should have. Control staff always assume and hope that firefighters will rescue occupants, and especially in the early stages of the incident, had no reason to believe otherwise.

The report talks about CROs dismissing information from callers in a way that makes it seem like a deliberate act. It does not take into consideration the panic, pressure and language difficulties. CROs are criticised for failing to remain on lines with callers. But this would not have been a deliberate act of simply hanging up on callers, but in order to answer the next caller, enter messages on the log of calls and pass on radio information. Similarly, a supervisor is unfairly criticised for answering 999 calls at a time when the room was overwhelmed and multiple FSG were coming in.

The GTI are particularly remiss for failing to consult any fire professionals about these aspects of its report. Ignorance of control matters is clear from consistent reference to "North West FRS" – an organisation that does not exist - when the GTI appear to mean North West Fire Control. Such mistakes undermine the credibility of the report with fire professionals.

Despite a chapter of merciless criticism, the GTI report concludes that it could not "reach any conclusive findings" about whether the failures "led to adverse consequences for any particular individual, let alone materially contributed to any death" (29.92). It is therefore unclear why the GTI sees fit to personalise the issues down to individual control room operators. It should have confined its focus to the failures of policy, planning and training higher up the chain of command and to the politicians who oversee the service.

8. UNFAIR CRITICISM OF FIREFIGHTERS

The GTI report rightly praises the intervention firefighters made on 14 June 2017:

> *1.14 The accounts given by many of the firefighters demonstrate that they displayed a remarkable degree of courage and devotion to duty. In many cases individual firefighters entered the burning building on several occasions in disregard of their own safety in an attempt to rescue those who were trapped.*

However the FBU rejects the criticism of individual firefighters' decisions, which often had to be improvised due to the lack of planning, procedures, training or equipment necessary to intervene. The FBU believes firefighters did their professional duty, often putting their own lives on the line to make some significant rescues.

RESIDENTS' VIEWS ABOUT THEIR RESCUES

Throughout the narrative sections of the report, the GTI downplays the actual rescue efforts made by firefighters on the night. Yet almost every resident who left the building after 01.50 required some physical assistance from firefighters and often received irreplaceable advice from emergency control staff. Again, the residents' were very clear in their appreciation of these efforts:

Floor	Residents' evidence	Exit time
23	*27. After about half an hour I saw a light coming towards me and I heard a fireman's voice. The fireman had a light on his forehead and I could see it through the smoke. I don't remember speaking to him. He wanted to hold my hand to help me down the stairs but I was too dizzy to walk very far and he began to carry me. I remember very little from this point. I remember saying thank you. I remember that he said that we needed to go downstairs. I could not continue walking and he soon had to carry me down because I couldn't walk.*[53]	02.25

15	*35. I started to pass out someone grabbed my left arm and said "casualty". It was a complete coincidence, it just felt like I was blessed in that moment. I was being passed from person to person as I went down the stairs because I kept feeling hands on and off of me. I remember there was a firefighter that forced his hand over my hand on my face to stop me from talking because I was inhaling too much smoke.*[54]	02.53
15	*32. There were two firefighters, I think one was black and one was white, one of them grabbed my arms and the other grabbed my legs. I was feeling dizzy and weak, I could feel myself going. They carried me down to the ground floor.*[55]	03.53
12	*66. The firefighter I was holding on to was encouraging me to keep going. We were walking down the stairs relatively quickly... I just remember the firefighter I was with say 'we made it'. I could hear a lot more noise now.*[56]	03.07
12	*66. I remember all four of us standing by the staircase and the fire fighter gave us each a deep breath of oxygen from their breathing apparatus.*[57]	02.41
11	*31. The fireman shouted "can you see the torch, walk towards the torch". I followed [my partner] and he followed the firefighters through the door to the stairwell... One of the firefighters took [my daughter]… and another steadied me and we continued down the stairs.*[58]	04.47
11	*41. The firefighters gripped me either side under my armpits to take me down the staircase. They just whisked me out of the flat.*[59]	08.07
10	*91. I relied on the two firemen to guide me down. I was holding onto the fireman's jacket in front of me with my left hand... I do recall catching my foot on something, but I do not know what this was. The firemen from behind me helped to free my leg and we continued down the stairs.*[60]	06.05
10	*58. As we left the flat it looked like there was a wall of firemen between our door and the fire exit. This was in addition to the firemen accompanying each of us...* *59. We crossed the landing area to get to the stairwell, it was pitch black other than the firemen's lights that they had on them…* *60. As we ran down the staircase I remember as we reached each floor, being aware of a fireman there guiding us down.*[61]	04.20
10	*36. I went downstairs with a firefighter walking alongside me and helping me along but I can't recall if he was actually physically holding me. He wasn't carrying me at first but after going down about 2 floors I fell to the ground completely exhausted and struggling to breathe. I felt one of the fire fighters lift me up from the ground and then place me over his shoulder before carrying me down the remaining floors to the ground level.*[62]	04.13

9	*39. The firemen helped my daughter put on her mask. I had an oxygen tank and plastic mask that covered my entire face. My glasses did not fit underneath, so I had to take them off, so was not able to see very well.* *40. One of the firemen carried my daughter out and I followed... I continued to hold onto the fireman with my right hand just above his elbow.*[63]	02.19
5	*61. A firefighter came up to the top of the ladder and told us we would have to descend one by one. He gave some direction about how we should leave the flat and to get onto the ladder.*[64]	02.21

The GTI report is right that firefighters did not order people to go back up to their flats.

> *10.290 Although some witnesses appear to have assumed that instructions to that effect had been given by the firefighters, there is no evidence that they had.*

In fact there is ample testimony from residents that on encountering firefighters on the stairs or the lobbies, the firefighters gave terse instructions to go down and leave the building. There is also evidence of firefighters knocking on doors early in the fire to give these instructions.

Floor	Residents' evidence	Exit time
5	*32. I then heard a female firefighter tell me to go downstairs. She motioned for me to keep walking downstairs past her.*[65]	01.26
5	*22. One firefighter then turned to me and said that I had two seconds to get out... I tried to put my daughter in her pushchair but the firefighter saw me do this. He had his helmet on and said that there was no time and that we just needed to leave.*[66]	01.27
5	*18. I was still in the communal area at this point just staring at the smoke. One of the firemen looked at me and told me to get out and to not take anything with me.*[67]	01.35
6	*46. I asked a fireman "shall I knock on more people's door", he said, "get out of the building now".*[68]	01.43
7	*31. I walked in front and opened the door to the stairwell, where I met a firefighter who was going up the stairs, quite quickly. He stopped for a moment and just said "run, get out". We started running down. We met a second firefighter who also said: "run, get out".*[69]	01.23

7	*12. I woke my dad who was still sleeping, and soon after I remember that a firefighter knocked on our door. He had no mask or breathing apparatus, and simply said: "do you guys want to start coming down?"*[70]	01.26
10	*35. we saw another fireman on the eighth floor. This fireman told us to go down.*[71]	01.27
11	*44. When I got to the stairs, the door was held open by a fireman with an oxygen mask on. [My wife] and the kids were already going down the stairs. The fireman took off his mask and was shouting for people to get out, hurry up…* *47. Shortly before arriving at the mezzanine floor I believe I saw two firemen in the corridors telling people on the floor to get out.*[72]	01.27

Shortly after the Grenfell Tower fire, the LFB estimated that firefighters had rescued 65 people from the building. The evidence provided by residents who survived the fire suggests that figure is about right. An additional 30-40 residents also received direction from firefighters and emergency control staff to leave the building. These efforts are not well represented in the GTI's report.

RESIDENTS' VIEWS ON FIREFIGHTERS

Many residents expressed their gratitude for firefighters' efforts to rescue them and their families. It is disappointing the GTI did not incorporate more of these comments into its Phase 1 report:

Residents' comments
198. I have nothing but praise for the ordinary firefighters of the London Fire Brigade who rushed in to that Tower and risked their lives to save people like us. Two of them saved my daughter's life... Words cannot express my gratitude to them.[73]
47. With regard to the firefighters. I can only say that without them and their extreme bravery and courage my daughter would not be alive.[74]
I was beginning to lose consciousness. I was mentally exhausted from the trauma. The fireman was still with me, I was leaning on him. Without the fireman helping me I could have not made it out of the building.[75]
29. The two firefighters who came for us, saved our lives. I did not meet those two firefighters afterwards. For us they were angels.[76]
93. I want to thank the firefighter who saved my life. I am so grateful and owe him my life. He risked his own life to save me and for that I will be forever grateful.[77]

48. I have no doubt that if the firemen hadn't knocked on my door, my daughter and I would have slept through until it was too late and died. The firemen were amazing. They saved my daughter's life and mine. I cannot thank them enough for what they have done.[78]
52. After the fire I visited Kensington Fire Station in Old Court Place. I had gone there to meet and thank a firefighter called Jamal who I had been told was the firefighter who pulled me out of my landing on Floor 16.[79]

The care with which firefighters understood their duties is well summed up by one firefighter:

> *I went round to the ambulance bit to check if the lady we had rescued from the twentieth (20th) floor was alright. She was there, sat up and she was talking. She was alive so that was cool. She recognised me straight away and she said "thank you thank you." We gave each other a hug. I said "you're out now, you're fine" and she said "thank you thank you." It was really quick. I just wanted to make sure she was alive... We managed to get her back, the CPR had worked.*[80]

This underlines the shared trauma of the Grenfell Tower fire experienced by both the residents living there and the firefighters who attended. Nobody should seek to drive a wedge between the community and the firefighters who serve them.

9. COULD MORE LIVES HAVE BEEN SAVED?

The GTI Phase 1 report asserts that many more lives could have been saved on the night of the fire. It states:

> *28.5 prompt evacuation would have resulted in the saving of many more lives.*

The FBU believes that this assertion is simply untenable on the existing evidence. The report appears to recognise the risks involved in adopting a different strategy to that employed on the night, but ploughs on regardless:

> *28.63 I fully recognise that, even if an order to evacuate (whether total or partial) had been given by 02.00, some lives might still have been lost. I also recognise that the mechanics of carrying out an evacuation of any sort in rapidly deteriorating conditions would have presented its own risks to the lives of residents and firefighters. However I have little doubt that fewer people would have died if the order to evacuate had been given by 02.00.*

It is remarkable that the GTI feels it can come to this conclusion without citing evidence from experts in firefighting or building evacuation. Most strikingly, the GTI has come to its conclusions about fire and rescue service policy and practice without citing findings from its own appointed firefighting expert, Mr McGuirk.

It is not the FBU's position that no other courses of action were possible or nothing more could have been done on the night of the fire. Most significantly, much more could have been done with planning and preparation but this would have required research, testing and a national assessment of the changing risks in residential blocks of flats. More could have been done if there had been more firefighters available to deploy earlier in the incident. Firefighters and emergency control staff could have been better trained and equipped. Instead they were placed into an impossible situation not of their making.

Every firefighter who attended the incident wishes that more lives could have been saved. Every firefighter who attended worked for that outcome, despite considerable risks to their own lives. But it is wholly unfair to suggest that had firefighters taken unplanned, untested and potentially reckless decisions that somehow more people would have survived. It is to misunderstand conditions on the night, to ignore the early deaths and incapacitation around 01.30 and to scapegoat firefighters for matters beyond their control.

The real counterfactual is that more lives would have been saved had the cladding not been installed, nor the building failed on fire safety grounds in other significant respects, including windows, doors, the ventilation system, lifts, stairwell and other failures. It is already possible to conclude that no fire of this magnitude would have taken hold of almost the entire building without those failures. Yet the GTI has decided to lay the blame with firefighters, before it has subjected the owners, managers and contractors to serious scrutiny. The FBU believes this is unfair and unreasonable.

10. THE GTI'S PHASE 1 RECOMMENDATIONS

The FBU welcomes the GTI's recommendations and will work together with other interested parties to ensure they are implemented swiftly. There are many practical matters to be resolved, which we are committed to assist with. However the firefighters who attended on the night as well as operational firefighters from across the UK disagree with the analysis of the operational aspects of the incident and some of the conclusions drawn by the GTI. These have been detailed above.

The FBU believes the GTI is right to state that any recommendations are "firmly on the facts that have emerged from the evidence" and "command the support of those who have experience of the matters to which they relate" (33.2). The union believes there needs to be a statutory central stakeholder oversight body within the UK fire and rescue service to ensure the recommendations are implemented properly. The recommendation (33.22a) on national evacuation guidelines, which the FBU will be involved with, should be an important step in that direction.

Many of the recommendations aimed at owners and managers of high rise residential buildings require legislation. The FBU expects the Westminster government and devolved administrations to make the necessary changes urgently. The FBU believes that many of the recommendations need to be provided through official government guidance. The union is willing to assist with producing this material.

The FBU expects the recommendations will be applied to every fire and rescue service across the UK, not just the LFB. Consistent training requires national standards. The union also believes every fire and rescue service across the UK will need to revise its high rise firefighting policy in light of the GTI's recommendations.

The union believes the recommendations will require substantial additional resources for the fire and rescue service, which should be provided from Westminster and the devolved administrations. Other recommendations have technical and resource implications. This includes amendments to the Joint Doctrine. The entire fire sector must learn the lessons from the Grenfell Tower fire and put in measures to effectively correct them. This requires a statutory stakeholder body that includes the FBU. These matters cannot be left to the NFCC alone.

OTHER GTI DECISIONS FROM PHASE 1

The FBU agrees with the GTI that the mandatory provision of fire extinguishers, hose reels or fire buckets is unnecessary (33.24). Residents should be encouraged to reach a place of safety, not try to fight fires.

The union also agrees that the GTI cannot make any recommendation at this stage about the installation of sprinklers in existing buildings (33.26). As Professor Torero pointed out, "the design of the water supply for sprinklers provides sufficient water to control a fire for a limited number of sprinkler heads (normally those that will activate in a one sector/floor fire)". Therefore, "a sprinkler system will not provide any protection and is not designed to operate in the event of external flame spread".[81]

However the FBU is disappointed that the GTI has not yet taken a stance on the minimum height for classification of high rise residential buildings (33.4). This has been the subject of much discussion and weakens some of the GTI's recommendations. The FBU supports the 11 metre (4 storey) definition used in Scotland.

The FBU agrees with the GTI that the use of combustible materials in the external wall of Grenfell Tower, principally the ACM rainscreen cladding and combustible insulation, was the reason why the fire spread so quickly to the whole of the building. Therefore the union is disappointed that the GTI believes it is unnecessary to recommend that panels with polyethylene cores on the exterior of high-rise buildings be removed as soon as possible and replaced with materials of limited combustibility (33.6).

Recent fires have shown that cladding remains a considerable risk. Many high rise residential buildings are still clad in flammable materials. An urgent recommendation from the GTI would add pressure on central government for rapid action.

The FBU also regrets that the GTI decided not to make a recommendation about materials permitted for use in the external walls of high-rise buildings that are not of Euro class A1. GTI expert Dr Barbara Lane came to a stronger conclusion. She stated:

> *2.28.7 A more robust testing framework, reflecting real building design and construction detailing, would also assist in establishing whether materials of "limited combustibility" (Class A2) are suitable. This would also allow a more credible view on the fire performance of individual materials when used in typical construction forms, in general.*

2.28.8 Until this change in the BS8414 testing methods are implemented, I recommend the higher performance requirement of Class A1 for external surfaces.[82]

Other organisations, including RIBA have also demanded this. An urgent recommendation from the GTI would add weight to the case for rapid action by central government.

The FBU is disappointed that there will be no further investigation of the width of the stairs (34.14). Many residents and firefighters commented on the narrow 1.04m single staircase. Although the stair width complied with Building Regulations at the time Grenfell Tower was constructed, such a width is no longer acceptable. Similarly, a single stairwell creates practical problems for simultaneous firefighting and mass evacuation. Residents in tower blocks that still contain these types of stairs may need special safety provisions to be developed by the owners/managers of those buildings. The FBU therefore urges the GTI to continue its investigation of staircase capacity when evacuation strategies are fully considered in Phase 2.

WIDENING THE REMIT OF PHASE 2

The FBU believes that the GTI's division into Phase 1 and 2 was mistaken and that the Phase 1 report bears this criticism out. The report has to refer fleetingly to matters leading up to the fire, but fails to fully establish the context within which firefighting took place on the night. It would have been better to establish the circumstances that led to the fire (and the culpability of those responsible for the building) before proceeding to examine the events on the night.

The FBU hopes that the GTI will, in Phase 2, undertake the same kind of forensic investigation and criticism of individual politicians, business people, and others responsible for Grenfell Tower as firefighters faced in Phase 1. The union also believes the GTI should ensure that when it reaches Module 6 on central government that ministers who were ultimately responsible for the failed fire safety policy over many decades are required to account for their decisions, including requiring them to attend hearings to answer questions.

The FBU said from the beginning in our submission on the GTI's terms of reference that the focus should be on central government, with an investigation of deregulation, downgrading of national standards and guidance, central funding cuts, privatisation of building safety research and inspection. The union was clear that the

Grenfell Tower fire was not simply a matter for the LFB, but was of huge significance for every fire and rescue service across the UK and for every community with high rise residential buildings that may be at risk.[83]

According to the Hackitt review, there are 2-3,000 high-rise residential buildings (HRRBs) over 30 metres (10 storeys) and around 10,000 residential buildings over 18 metres (6 storeys) in England.[84] The fire and rescue service in England is aware of more than 40,000 purpose built flats of 4 storeys or more (11 metres), with more than 18,000 of those in London.[85] The GTI Phase 1 report should have done more for the residents of those buildings, as part of its promise that a Grenfell fire will never happen again.

There are still more than 300 high-rise residential and publicly owned buildings with ACM cladding systems unlikely to meet Building Regulations yet to be remediated in England, according to MHCLG figures.[86] Experts estimate that tests on other, non-ACM cladding might fail on 1,700 'at risk' buildings across England, including tower blocks, schools, nursing homes and hospitals.[87]

The GTI's Phase 1 report ignores the national fire safety crisis that that Grenfell Tower fire exposed. The GTI should at least have registered the numerous other cladding fires that have occurred since June 2017. Thousands of people are still at risk from continuing cladding fires. The GTI should have made urgent recommendations to improve safety across the country to avoid a further tragedy. Residents continue to sleep at night in buildings at risk. Firefighters continue to attend incidents with the prospect of massive compartmentation failure. The GTI should press central government to take responsibility.

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