FBU's Closing Submissions for Phase 1 of the GTI

6th December 2018

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A. Introduction

1) The FBU continues to support and encourage a full and open Inquiry. The bereaved, survivors and relatives of the deceased (BSRs) need to learn as much as possible about the facts surrounding the deaths their 72 loved ones. This inquiry should be a turning point in fire safety and in the provision of fire and rescue services (FRSs). Occupants of high rise residential buildings should not have to fear the risk of fire but should be reassured that a "layered approach" to fire safety providing "defence in depth" has been and is being applied and enforced to their homes. Likewise, firefighters and control room operators should never again be put in an impossible position such as faced them on 14/06/17.

2) The construction industry, government departments and the fire service nationally and locally, all need to learn the right lessons from the tragedy. These are needed both to improve our national fire safety regime and to provide the operational procedures, training and resources which are needed for an effective emergency response that recognises both the fact that fire is unpredictable and the risk that compartmentation might be breached.

3) Meanwhile the firefighters and control room staff who worked in appalling conditions need protection from unwarranted criticism. Firefighters were not aware that the building envelope of Grenfell Tower (GT) was rainscreen cladding, let alone that it was combustible or that it created multiple catastrophic fire spread routes.

4) The FBU believes the GTI should acknowledge that any firefighting is hazardous and that entering a compartment to fight a fire is dangerous for those tasked to undertake it. For their own safety and the safety of the public firefighters need procedures and must follow procedures or the risks will end in injury and death. Firefighters will train to procedures in order to best manage the risks and uncertainties inherent in firefighting.

5) Firefighters tried to extinguish the fire and save lives; they did their duty professionally, bravely and to the best of their abilities in face of an initially insidious and rapidly developing fire that they did not start or cause. They followed their procedures and applied their training as much as the extreme conditions allowed. Their procedures, training and experience did not prepare them for either a cladding fire, with its potential for rapid fire spread, or a full or partial evacuation of a high rise residential building (HRRB) in the event of fire breaking out of one compartment, into another and risking or causing multiple fires in multiple compartments.

6) By starting with a microanalysis of the emergency response the GTI risks inflating the significance of anything the emergency services might have done differently in face of the unfolding disaster. It cannot explain how the building became a 'highly combustible death trap", nor why the deceased, the BSRs and the emergency services were put in the awful, we say impossible, position of dealing with the inferno that resulted.

B. Proper perspective

7) In her provisional report for Phase 1 of the Inquiry and in her presentation on 18th June 2018 Dr Lane described the refurbishment and other works carried out at Grenfell Tower before the fire. In section 2.9 of her supplementary report (BLAS000002_0014) she sets out her conclusions in respect of the **rainscreen cladding system**, which she describe as "the primary failure", including:

> 2.9.1 A high degree of compartmentation forms the most important basis of the single building safety condition Stay Put.
>
> ...
>
> 2.9.6 Based on the relevant test evidence submitted to the Public Inquiry, the construction materials forming the rainscreen cladding system, when either considered individually or when considered as an assembly, did not comply with the recommended fire performance set out in the statutory guidance of ADB 2013 for a building with a storey 18m or more above Ground Level.
>
> ...

2.9.8	Additionally, I conclude the entire system could not adequately resist the spread of fire over the walls having regard to height, use and position of the building. Specifically, the assembly failed adequately to resist the spread of fire to an extent that supported the required Stay Put strategy for this high-rise residential building. The assembly failed adequately to resist the spread of fire to an extent that supported the required internal fire fighting – Defend in Place fire fighting regime.
2.9.9	There were multiple catastrophic fire-spread routes created by the external wall materials, the arrangement of the materials, as well as the construction detailing of those materials.
...	
2.9.24	I conclude that the required single building safety condition Stay Put, was not provided for, as was required, as a result of the rainscreen system installed during the primary refurbishment.

8) This was confirmed by her analysis of the external flame front and its impact on multiple flats which led her to report (2.11.5 to 7) that the fire had:

a) broken out of Flat 16 into the rainscreen cladding system by 01:08,

b) spread to level 5 and entered one flat (Flat 26) by 01:13,

c) spread to level 11 and entered 8 flats by 01:21,

d) spread to level 23 and entered 20 flats by 01:26,

leading Dr Lane further to conclude:

...	
2.11.13	The statutory design guidance advises simultaneous evacuation is "*unlikely to be necessary*" **only** where there is a high degree of compartmentation and so a low probability of fire spread beyond the flat of origin. The spread of fire and smoke through multiple compartments (flats) as well as out into the lobbies (which I address later) meant this high degree of compartmentation was not available and fire spread beyond the flat of origin had occurred.
2.11.14	This represents a total failure of the design principles of the Stay Put evacuation regime.

2.11.15	I conclude therefore that Grenfell Tower should never have been handed over with this rainscreen system, in circumstances where a Stay Put evacuation strategy was in place for the residents.
2.11.16	In addition, this information was needed by London Fire Brigade, such that they could consider their fire fighting and rescue tactics, as well as their evacuation guidance to residents of Grenfell Tower. No such opportunity was provided to London Fire Brigade.
...	
2.12.14	... it is important I make clear that I consider the building design condition for stay put to have failed substantially by 01:26.

9) We respectfully agree and contend that, unbeknown to the firefighters and control staff who responded to the disaster, the Stay Put evacuation strategy was unsustainable from the moment the rainscreen cladding system was put on the exterior of the building and long before the first 4 pumps arrived. We ask these conclusions be borne in mind in order to view the emergency response of the fire service in proper perspective.

C. The Responsible Person (RBKC) had no evacuation plan for Grenfell Tower

10) After the refurbishment works, the building was unsuitable for a Stay Put evacuation strategy, but that is what was provided. Shortly before the fire, the TMO produced a Fire Action Notice [BLA00002416], transcribed below, which was posted by the lift on the ground and other floors, advising residents:

Fire Action – GRENFELL TOWER TMO

There is a "Stay put" policy for residents unless the fire is in or affecting your flat.

IF YOU DISCOVER A FIRE IN YOUR FLAT/BLOCK

1. Leave at once shutting doors behind you.
2. Use the staircase and exit the building.
3. Telephone the Fire Brigade by dialing "999" or "112".

IF YOU ARE SAFELY WITHIN YOUR FLAT & THERE IS A FIRE ELSEWHERE IN THE BLOCK

You should initially be safe to stay in your flat keeping the doors and windows closed.

On arrival the Fire Brigade will make an assessment and will assist with evacuation if required.

If you wish to evacuate, leave closing the door behind you and use the staircase to exit the building.

IF YOU ARE IN A COMMUNAL AREA & BECOME AWARE OF A FIRE

Leave the building at once via the staircase & alert the Fire Brigade by telephoning "999" or "112".

IF LEAVING THE BUILDING PLEASE

- DO NOT use lifts
- DO NOT re-enter the building unless instructed to do so

Your assembly point is: OUTSIDE FRONT OF GRENFELL TOWER

11) RBKC was the responsible person under the Regulatory Reform (Fire Safety) Order 2005 [SI 2005/1541] ("FSO") required to ensure that relevant persons (including residents and their visitors) could evacuate the premises as quickly and as safely as possible in the event of danger (see Art.14(2)(b)). RBKC was further required to establish and, where necessary, give effect to appropriate procedures, including safety drills, to be followed in the event of serious and imminent danger to relevant persons, and to nominate a sufficient number of competent persons to implement such procedures - Art.15(1(a) & (b). Before the fire no such procedures or drills were devised or implemented nor were competent persons appointed. Phase 2 of this Inquiry will be an opportunity to encourage a change in culture and, where necessary, regulation, to enable residents of a HRRB to be familiar with the evacuation procedure, as many workers already are.

12) RBKC commissioned the June 2016 fire risk assessment (FRA) of Colin Stokes (LFB00000066). His FRA described RBKC's evacuation strategy (see extract

below) asserting the Fire Service or TMO employees will arrange for a general evacuation of the whole building at anytime if appropriate:

> ...For the residents of this building there is a "stay put" evacuation strategy, this means the residents can remain within their own dwelling during a fire incident in this building unless the fire is in their dwelling or that their dwelling is otherwise affected by the fire. In which case they should immediately evacuate their dwelling and call the Fire and Rescue Service. ...
>
> The Fire Service or TMO employees will arrange for a general evacuation of the whole building, at anytime if this is appropriate to do so...

13) In short, the evacuation plan was for residents to self-evacuate and call 999 if their dwelling was affected by fire, to stay put if not and for the LFB or the TMO to arrange for a general evacuation of the whole building if appropriate. There was no further information or guidance or training about what was meant by "*affected by fire*" nor by "*a general evacuation of the whole building*" nor when or in what circumstances such general evacuation might become appropriate. Additionally 'Stay put' was wholly dependent upon compartmentation and needed to be supported by a contingency plan for evacuation if compartmentation was breached. There was none.

14) We invite the Chairman to conclude that neither RBKC nor the TMO had any procedure for the general evacuation of the whole building, relying instead on 'Stay put' and leaving it to the LFB to devise one if appropriate.

15) Properly understood, the 'Stay Put' evacuation strategy directs residents to leave if affected by smoke heat or fire and so the label is misleading. We invite all core participants and the Chairman to consider a change of advice to residents going forward.

16) Whether the advice in the fire risk assessment that the "*...Fire Service or TMO employees will arrange for a general evacuation of the whole building, at anytime if this is appropriate ...*", or the advice on the fire action notice that "*on arrival the Fire Brigade will make an assessment and will assist with evacuation if needed*", was brought to the attention of anyone at LFB before

this fire is an issue for Phase 2. If so, it had not filtered down to operational crews: WM Dowden was aware the majority of high-rise residential blocks had a Stay Put policy (T10/6:14) but had no further information about it and was unaware that he was supposed to make an assessment on arrival and assist with evacuation if needed. None of the firefighters who attended the Grenfell Tower fire could remember either an evacuation plan for a HRRB or any training or experience in how to do so. On 14th June 2017 implementing an evacuation plan was still uncharted territory, left to the incident commander to navigate in the worst possible circumstances.

D. Neither did the LFB have a contingency evacuation plan for Grenfell Tower:

17) The possible need for a contingency evacuation plan was noted in national guidance to Fire and Rescue Services from at latest 1998 when the first edition of the Generic Risk Assessment for "Fighting fires in high rise buildings" ("GRA3.2") was published by the Home Office. The 2014 edition published by DCLG (LFB00001255) advised (at p.17) that contingency plans "... *should cover an operational evacuation plan being required in the event the "Stay Put" policy becomes untenable...*" and (p.19 – 20) that "... *Training, which will cover high rise incidents must include: ...evacuation and casualty removal tactics. Incident Commanders should understand when a partial or full evacuation strategy might become necessary in a residential building where a" Stay Put" policy is normally in place ...*". But neither GRA3.2 nor any other policy gave any guidance then, or in subsequent editions, on **how** to evacuate a HRRB involved in fire, nor on the circumstances which should trigger an evacuation.

18) This national guidance was incorporated into the LFB's policy notes PN633 for high rise firefighting (LFB00001256) and PN790 (LFB00001257) for fire survival guidance calls but, similarly, without advising on how or in what circumstances to evacuate a HRRB involved in fire and, once again, leaving it to the incident commander to develop a general evacuation strategy if appropriate. For example:

a) para. 7.45 of PN633 said "*...the IC should consider following the evacuation plan devised as part of the occupier's fire risk assessment, unless the fire situation dictates otherwise...*", but (see para. 11 above) there was no such evacuation plan. It was left entirely to the IC to devise one and to decide when the fire situation dictated that he should implement it.

b) Para. 7.46 advised: "... *It may be necessary to undertake a partial or full evacuation in a residential building where a "Stay put" policy is normally in place...*", but gave no guidance when or in what circumstances. Again, it was left entirely to the IC to work out when to move to evacuation.

c) Para. 7.47 highlighted some of the difficulties an IC would face in such a situation, such as an adverse effect on firefighting and greater assistance needed for disabled persons. But the only practical suggestions were to consider additional resources, using other emergency personnel to assist and establishing separate attack and evacuation stairwells. These suggestions would have been of little or no value to the IC at Grenfell Tower: there is little point in having more resources without a procedure or plan for additional crews to implement; it was unsafe for police or paramedics to enter the building; and there was only one stairwell.

19) We ask the Chairman to conclude that neither GRA3.2 nor PN633 gave any practical guidance to ICs on how to evacuate a HRRB involved in fire, nor on the circumstances which should trigger an evacuation. There is as yet no task analysis of who does what, which is a necessary step to ensure resources arriving early enough to put evacuation into practice if circumstances require. We hope in Phase 2 the Inquiry will consider why neither responsible persons of HRRBs nor the Fire and Rescue Service nationally had developed contingency evacuation plans in the event of a breach of compartmentation rendering 'Stay Put' unsustainable in a HRRB.

20) Developing such procedures, and the training to embed them, would require considerable investment of resources including empirical studies, trials, the bringing together of expertise in a number of different fields of discipline, liaison with responsible persons, the development of a general evacuation procedure for HRRBs to be practised, reviewed, improved and implemented when needed, and practical drills, each one involving hundreds of residents, their visitors, wardens and others. This would have been a major undertaking achievable only at the national level. We say it was too daunting even for the biggest Fire and Rescue Service in the country, the LFB, to resolve. It was a challenge for central government. This is a national problem which calls for a national solution. It is not one to be delegated to individual FRSs nor even to the NFCC and is certainly not one to be given to an IC to resolve in the midst of an emergency.

21) Not only was it impossible for the IC to devise a workable evacuation plan in such circumstances, but also it would be impossible to implement any plan he might devise without a workforce trained to execute it. WM Dowden told the Inquiry when asked "*... And if you had decided to adopt a strategy of full-scale evacuation, can you give me some kind of idea of what you would have needed in terms of firefighters and equipment at that moment? A. I can't comment on that because that's something I've not had experience of. It's a hypothetical question and I really only want to talk about my recollection of that night, what I did and my actions...*" (T11/32:4).

E. Firefighters and control room staff had no training on key areas

22) Our analysis of the evidence given by a sample of the firefighters attending Grenfell shows that firefighters were not trained on when, in what circumstances or how to evacuate a HRRB involved in fire, on the possibility of widesbread breach of compartmentation, on the risks posed by cladding façade systems or on handling multiple FSGs.

(1) Evidence to the Inquiry on training and experience of Evacuation/changing SP strategy

23) Assistant Commissioner (AC) Roe told the Inquiry on Day 48 on 25/09/18 that he had no training on how an incident commander should make the assessment as to when a full or partial evacuation strategy might become necessary [T48/T169:6]. He said: "...(we) *haven't provided training that would necessarily equip a watch manager how to go about making that judgement call, namely altering the advice to FSG callers so that they should now attempt to leave ... because you're flying completely in the face of national guidance ... I think that's a very difficult decision for a junior officer to hold, and whilst it's in the policy, I don't think we've provided specific training that would perhaps allow them to fully explore the possibility of that* ..." [T48/170:25]. He said there was no training in how to carry out a full or partial evacuation of a HRRB and explained "... *it's quite difficult to provide that training, because you would have to be very careful about laying too prescriptive plan on evacuation...*" [T48/186:20 & 187:11].

24) DAC O'Loughlin had never had any formal training on how, as an IC, to go about changing stay put advice and telling people to attempt to leave [T47/26-27]. This lack of any theoretical or practical training in evacuating a HRRB was echoed in the evidence of GM Welch had never carried out a practical training exercise involving full or partial evacuation of a high-rise residential block [T44/5:15-19] and GM Goulbourne [T41/64:16-24] who clarified there was no training on the circumstances when you would evacuate compartments beyond the immediate compartment of origin and surrounding compartments [T41/65:17-23].

25) The lack of any training in evacuation of a HRRB is corroborated by in the evidence of all in our sample who covered the point and the FBU submits there was no theoretical or practical training in evacuating a HRRB involved in fire or abandoning 'Stay Put':

a) SM Loft [T37/119:4-12]

b) SM Walton, who said it had never been a consideration to facilitate training on how to go about considering and implementing evacuation where compartmentation fails [T46/18-19]
c) WM Dowden was asked many questions on this topic. He testified that he had never received training on how: to understand when evacuation may become necessary in a residential building where a 'Stay Put' policy is in place [T9/35], to follow an occupier's evacuation plan, as envisaged by PN633 [T9/59-60], to undertake partial or full evacuation of a residential building [T9/60:11-21], to consider the effects of firefighting tactics on evacuation (and vice versa) or the resources required to support evacuation or the stay put policy, as envisaged by PN633 [T9/60-61], or on how to re-evaluate the advice given in FSG calls throughout an incident [T9/61-62].
d) WM O'Keeffe [T17/1366:16-20 & 137:19-24]. He was never trained on what to do if 'Stay Put' was to be abandoned or departed from and evacuation, full or part, adopted as a strategy instead [T17/169:12-23].
e) CM Secrett said that training does not cover how to assess whether the 'Stay Put' policy remains a safe policy to retain in the event of failure of compartmentation in a high rise block and what signs to look out for. [T16/162:12-19].
f) Ff Abell [T14/7 and 14-16]
g) Ff Bettinson said about the training exercise the day before the Grenfell Tower fire that it did not involve simulating a partial or total evacuation of the residents of a high-rise building [T26/205]

26) This lack of training on evacuation and/or changing 'Stay Put' was mirrored in the control room. Assistant Operations Manager (AOM) Alexandra Norman was in charge of the control room until Senior Operations Manager (SOM) Joanne Smith arrived there soon after 02:15. AOM Norman said she was never trained on how to assess whether or not a caller should evacuate or stay put [T42/13:20-24]. SOM Smith told the Inquiry she was not familiar, from either

training or experience, with the idea that the alternative to stay put is simultaneous evacuation [T22/4:20-24].

(2) Evidence to the Inquiry on training and experience of widespread breach of compartmentation

27) AC Roe testified that he had never experienced widespread compartmentation failure in a HRRB [T48/146:22], and had never been trained on widespread compartmentation failure in a HRRB, because of the 'Stay Put' policy [T48/147:9]. He said "*...the LFB certainly wouldn't train to that scenario because I think it would lead to poor decision-making, potentially, because it might affect the way you took decisions...*" [T48/147:16]. He was "*...fully aware of the risk that combustible material in voids and cavities and poor quality construction can also contribute to the spread of fire and smoke beyond the compartment of origin ... But I wouldn't have had detailed training around how you would then assess it, particularly from our perspective at an incident...*" [T48/154:2].

28) This senior management approach of not training for this scenario was echoed by Deputy Assistant Commissioner (DAC) O'Loughlin, who had taken part in simulated training exercises in Canary Wharf-style buildings where there was an expectation of possibly one or two floors catching alight rather than a single compartment but not in a council block of flats *"...where the compartmentation in general hasn't been known to fail in the past..."* [T47/13:6-19]. In the same vein Group Manager (GM) Pat Goulbourne said there were no senior officer discussions regarding significant breach of compartmentation as it was not something you expected to see [T41/82:14-18] and you do not expect multiple failures of compartmentation on multiple floors [T41/205:9-16].

29)The evidence of those attending Grenfell, in all roles, reflected this approach so that while there was general recognition of the possibility of a localized breach of compartmention there was little or no awareness that it might become widespread. So, for example, SM Loft said he never received or delivered any training on the lessons learned at Shepherd's Court [T37/119:1-3] and SM

Walton told us he was aware of fires having broken out of windows and re-entering the floor above, although he had no personal experience of this – every flat fire he has ever fought has been contained within the compartment where it started [T46/18:10-17]. WM Dowden said he was trained to observe any signs of smoke/fire being present outside the original compartment and to put procedures in place to gain a '360' of the outside of the building to obtain an understanding of how the fire is behaving internally [T9/41-42]. WM O'Keeffe said training did not involve what an IC should do if compartmentation in a high-rise building should fail [T17/130:15-18] and he was never trained on how to look out for and what to do in the event of unexpected failure of compartmentation in a high-rise block [T17/138:3-12]. WM Johnson said he had no training on how to handle fires which breach their compartments and spread through a high-rise block [T36/197:11-17]. CM Secrett said training does not cover what to do if compartmentation within a high-rise block fails [T16/162:7-9], Ff Abell could not remember anything in training about what would happen when compartmentation is breached within a high-rise block [T14/4]. Ff Bettinson had never received any training as to what to do should compartmentation fail in a high-rise building and said it is hard to do any real fire training because there are not the facilities [T26/202-204].

(3) Evidence to the Inquiry on training and experience of cladding fires

30) AC Roe told the Inquiry he had "...no training on how to spot a cladding fire in the context of a HRRB, but I received training on clad materials in a sandwich panels training package which I think I probably completed online..." [T48/148:5]. He did not recall "...either receiving or delivering training on tall buildings facades..." [T48/171:18]. He did not understand that new construction material and methods of construction were being used with a limited understanding of their fire behaviour and performance [T48/173:6] and (asked whether there was a general need for fire officers, particularly incident commanders, to understand what products are being used in the facade system and their behavior) he said: "...I'm not sure that it's possible for a fire officer to maintain that level of detailed construction knowledge..."

[T48/174:7]. Although he was aware that there was emerging question or issue about the risks of fire spread posed by exterior façade systems [T48/179:8], there was no training or intelligence being shared within the senior LFB community about the risks of unexpected fire spread posed by these façade systems [T48/180:1]. He thought the risk that a fire spreading over the exterior of a high-rise building could break back into the building was covered in the Lakanal training package [T48/180:7].

31) This senior management approach of not disseminating knowledge of the risks associated with cladding facades is reflected in the evidence of the others in our sample. So DAC O'Loughlin had never received training in fire spread up a high-rise residential block façade because, he said, external façade fires are only normally linked to scaffolding or balconies so easy to deal with [T47/14:4-15]. GM Goulbourne said there were no training programmes covering ignition or fire spread on a façade of a high-rise building [T41/64:10-15] and GM Welch said he had not received any [T44/5:5-8]. This was echoed by all those in our sample who covered the point:

a) SM Loft [T37/118:18-21 & 119:1-3],
b) SM Walton, who did not believe that cladding could burn and believed that building regulations would have prevented such a situation arising [T46/39:1-4 & 39:5-9],
c) WM Dowden, who said his knowledge of the spread of fire on high-rise residential buildings as a result of cladding was as good as the person in the street [T9/91:3-17]. He had never received training on the Tall Building Facades presentation [T9/78:18-23] or the lessons learnt from the Shepherd's Court fire [T9/88:9-11].
d) WM O'Keeffe who said he was never trained as an incident commander attending a high-rise as to the risks posed by exterior cladding system [T17/140:17-20, see also 130:12-14 & 135:14-18].
e) WM DeSilvo [T29/188:17-22]
f) CM Secrett who told us that before the Grenfell Tower fire the learning that cladding can promote rapid fire spread "*was not present*" [T16/158-160].

g) Ff Abell, who could remember nothing in training about the spread of fire on the exterior of a high-rise block [T14/4], and
h) Ff Bettinson, who had never received any training regarding the particular risks posed by cladding and fire on high-rise buildings [T26/202-204].

(4) Evidence on training and experience of Multiple FSGs

32) AC Roe said he had had training on how, as an incident commander, to manage perhaps up to 10 FSGs at a single incident [T48/188:22]. The highest number of FSG calls he had to deal with as an incident commander at a single incident was "...possibly two..." [T48/189:18]. When asked about PN790 he said "...I think it anticipates a situation where you get might get more than one, or where you might get a number of flats perhaps on one level or across two floors where, if we're talking about in the context of high-rise, there's been a breach of compartmentation. But certainly not in the volume we encountered. It's not designed for that. This policy isn't designed for the volume of calls we received that night... [T48/191:10]. DAC Loughlin had also received FSG training on large-scale simulated exercises, but the most FSG calls this ever involved was 6 or 7 [T47/14:17-24 & 30:8]. He had never been trained how to prioritise one FSG call from another because "...it's not something I would've ever expected, that you would need to take such a large volume of fire survival guidance calls and in some way put them in some priority order..." [T47/33:1].

33) The highest number of FSG calls which the other witnesses in our sample had experience of at an incident or in training was 2 or 3 e.g. GM Welch [T44/20-21] and GM Goulbourne [T41/76-77]. SM Walton had received training on PN790 which covered the exchange of FSG information between control, the fireground and the bridgehead [T46/15:7-14]. Ff Adam Johnson had received training, but had very limited experience of FSGs [T45/31-33]. Some had no experience or training , e.g. SM Loft who, though familiar with PN790, had no training or experience handling FSGs and processing that information [T37/147:5-11]; e.g. WM Dowden [T9/71:7-9], e.g. WM DeSilvo [T30/14:20].

34) WM Peter Johnson had identified that PN790 did not adequately take into account the potential for fire spread at a high-rise incident and did not anticipate multiple FSG calls [T36/203-204]. There being none, he devised a training package for handling FSG calls [T36/204-205 & 223-224]. He said "...The training package I designed demonstrated how difficult it would be to deal with just seven FSGs..." [T36/223-224], and that the FSG policy was unrealistic – the communication information required to be passed on by Control to the FSG command unit becomes difficult with only four FSGs [T36/226-227]. He tried to remedy matters but, he added, PN790 was never amended to cater for multiple FSGs and no training package sufficient to deal with the difficulties in communicating multiple FSGs was ever designed [T36/234-235].

35) AOM Norman gave mirror evidence of training and experience in the control room. She had been trained on PN539 as part of her new entrant's training in 2003, then refresher training FSGs in 2011/2012 – that was the last training on FSG before Grenfell [T42/12-13]. She had never trained on how to handle multiple FSGs from a single incident [T42/13:17-19] nor on how to manage a control room in a large incident or a control room receiving multiple FSG calls [T42/13-14], nor on how to assess the risk of self-evacuation after Lakanal House [T42/23:23], nor on how to get the best information and most continual flow of information from the incident ground [T42/25:3-7].

36) The evidence to the Inquiry shows that FSGs were rare, that training on FSGs was patchy, that training on multiple FSGs was limited to about 6 or 7 FSG calls (10 at most) and no firefighters had experience of handling more than, at most, two or three at a single incident. Moreover, the problems of trying to deal with multiple FSGs were not addressed, despite being raised by WM Johnson.

37) The FBU believes that without a contingency evacuation procedure and training to embed it, there could be no 'magic' solution to the problems of trying to handle multiple FSGs. However, for a future procedure the receipt of

multiple FSG calls, particularly from different parts of the building, could instead trigger consideration of a partial or full evacuation.

38) Going forward, such training in future will have to be founded on procedures and cover, at the least:

a) The procedure and task analysis for a contingency evacuation plan developed nationally, applied locally and developed for each HRRB both on the incident ground and in control, taking into account the active and passive fire safety measures in place;
b) the importance of working with the responsible person to help residents understand and practice the evacuation strategy with fire drills;
c) the importance of pre-planning including seeing the responsible persons' fire risk assessment and understanding his/her evacuation strategy;
d) breach of compartmentation, how to watch out for it, and what to do if there is a risk of it occurring;
e) evacuation and casualty removal tactics
f) consider the viability of the 'Stay Put' strategy when the fire looks as though it might spread to multiple compartments;
g) the meaning of "affected"
h) when and in what circumstances to liaise with the Operations Manager in control:
   (i) to advise 999 callers who can leave to evacuate,
   (ii) to advise FSG callers, who are trapped and awaiting rescue, to try and evacuate in any event;
i) to record those who have evacuated and debrief them as to the conditions in their flats, lobbies and the stairway;
j) to liaise with other emergency services in order to provide medical treatment, shelter and storage for those evacuating.

F. Conclusions on lack of either an evacuation plan or a contingency evacuation plan

39) Before Grenfell, no Fire and Rescue Service across the country had developed a contingency evacuation plan for a HRRB involved in fire, despite the words in GRA3.2 and in local standard operating procedures, such as PN633 and PN790 in London. This task was too big for a single Fire and Rescue Service and required national research, development and leadership.

40) The total building failure of Grenfell lies at the heart of all the major problems faced by the emergency services on the night. However, even recognising that, a lack of any practical contingency evacuation plan, and the training and confidence to implement it, limited the good work which the emergency services could do. Eventually, when the fire had developed significantly (Dr Lane reports that by 02:25, 3 of the 4 elevations had ignited), very senior officers changed the Stay Put advice. Until then the training and experience of the firefighters and control room staff present did not allow them to devise any alternative strategy:

a) Within about 20 minutes of SOM Smith's arrival in control, she began to change the 'Stay Put' advice from about 02:35. Until then, control room staff could only apply their experience and training to make sure the FSG data was passed to the fireground in the well-founded belief that the firefighters would rescue the FSG callers who they believed were safest remaining in their flats and awaiting rescue.

b) When AC Roe arrived on the incident ground, he independently reached the same decision, to change the 'Stay Put' advice, at around 02.47. Until that point, the firefighters could only apply their experience and training to summon more resources, to fight the flat fire and then attempt to fight further flat fires, to attempt to fight or slow the fire externally, to preserve and pass on carefully the FSG information they were given, to search and try to rescue FSG callers, and to assist evacuees and rescue or recover casualties.

41) Without a contingency evacuation procedure, and the training to embed it, the firefighters and control room staff were placed in an impossible position:

a) As WM Dowden told the Inquiry when asked about the time, at about 01:24, when the fire was rapidly developing up the east elevation and he had just made pumps 10: "*...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. As I said, I was very, very, very much out of my comfort zone, I just don't know how that could have been done with the resources we had in attendance at that moment in time... They're not thoughts that I had at the time. That's a reflective thought that -- you know, I've had a lot of time to think and process the event which I didn't have on that night. I didn't have the time for those reflective moments. I was reacting in a way that I thought was best with all my previous experience in something that I'd never witnessed before, and – you know. Yes. ...*" (T10/161:22 &ff).

b) When asked about the time at about 01:29 when he made pumps 20 and FRUs 2, WM Dowden said "*...I would say at that point I was still working to the stay-put policy because of my previous experience, and I've not been in a position before where I've ever had to make that decision or change that advice...*" (T11/37:16).

42) We turn now to the events of the night and single out some key issues for comment at this stage.

G. The fire, its initial development and raising the alarm

43) Probably in the first hour of 14th June 2018 the compressor unit at the back of the fridge-freezer in the south east end of the kitchen in Flat 16 on the 4th floor of Grenfell Tower (GT) caught fire when electricity arced from one bared wire to another. Loose crimping of a bunch of wires had increased electrical resistance whereupon they became sufficiently heated to burn the plastic sheathing and bare one or more of the wires including the one referred to as MJS/1 (Dr Glover, Day 82 on 27/11/18 and Professor Niamh Nic Daeid, Day 83 on 28/11/18). This electric fire in the fridge-freezer grew and generated enough smoke to trigger the smoke alarm in the kitchen, waking Mr Kebedi at about 00:50 as estimated by the LFB in "*The London Fire Brigade Operational Response to Grenfell Tower* 00:50 to 05:00 hours, dated 24th May 2018 (LFB00024393_0007) ("ORR").

44) The fire was probably burning for some time before 00:50 when it had generated enough smoke to trigger the smoke alarm and awaken Mr Kebedi.

45) Mr Kebedi looked into the kitchen, saw thick light-coloured smoke, banged on his flatmates' doors several times to waken them, ran to the living room and started dialling 999 (IWS00000490, paras 68-79) while also knocking on his neighbours' doors on the 4th floor and then making his way downstairs. After several attempts he got through to Control at 00:54:29 and reported "*Fire ... The fridge. Flat 16, Grenfell Tower ... W11 1TG ...*" (LFB00000301). By the end of the call Mr Kebede was downstairs and outside the building, as Control Room Officer ("CRO") Pamela Jones confirmed, and 3 fire engines had been mobilized at 00:55:14.

H. The Fire & Rescue Service response

46) We have yet to see the report of Steve McGuirk with a comprehensive timeline of firefighting activities and his opinion on issues of concern to firefighters including communications in HRRBs, physiological effects of hard work in a

hostile environment, effective and safe use of EDBA, including such use in conjuction with SDBA. The FBU therefore intends at this stage only to draw out some key points about the emergency response from the evidence adduced in Phase 1 which we invite require the Inquiry to consider.

I. Key statements of opinion about the fire and the firefighting, & FBU comments thereon:

47) Dr Lane has analysed the fire and firefighting activity in her supplementary report and set out her conclusions in Section 2.10.

a) In respect of the early external firefighting activity which failed, Dr Lane concluded:

...	
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. Further there are so many combinations of events that could fall entirely outside the reach of external firefighting activity. This is important when only internal firefighting arrangements are made for high-rise residential buildings by statutory guidance at this time.
...	
2.10.21	However, it is relevant for my report to record that there is no provision made for external firefighting as the primary source of firefighting in high rise residential building design. The primary source of firefighting is internal firefighting by means of a protected shaft with water mains, firefighting lift, and smoke extract from the lobby to the stairs.
2.10.22	In the absence of notification of the risk the external wall posed, by the relevant stakeholders to London Fire Brigade, I am unclear what prior planning could therefore have occurred.
...	

b) As to the progression of conditions within the lobbies and the stairway, Dr Lane makes only provisional conclusions, pending

completion of her work in Phase 2 after considering more fully the oral evidence given to the Inquiry. The FBU has compiled a "Smoke Flow" workbook dated 2/12/18 which has been disclosed to the GTI team. This is a work in progress and updated versions will be shared in due course. We ask that Dr Lane takes this work into account when reviewing this part of her work.

c) At para. 2.14.8 to 9 (BLAS0000002_0027) she identifies some differences between the evidence of firefighters and residents as to the timing of when conditions deteriorated. The FBU asks Dr Lane in her work, and the Chairman, to consider whether conditions were dynamic and changing in the stairway and the lobbies and, if so, whether that accounts for some differences of perception.

d) In paragraph 2.14.10 Dr Lane states that firefighters were not accessing above Level 12 from approximately 03:00 whereas residents escaped from higher levels during that period. We note the evidence that firefighters were trying to get above Level 12 but finding it impossible due to a combination of the need to assist evacuees or remove casualties as well as the deteriorating conditions:

i) For example Ffs Hoare and Tanner were deployed under SDBA to the 10th floor to effect a rescue and tallied out at 02:55 (T39/195:16 & LFB00023328). Ff Hoare said they were redirected to the 12th floor to find a missing firefighter and found conditions deteriorated in the stairs up to the 12th floor (T39/197:20). On returning to the 10th floor to carry out their brief they found the lobby was full of thick black smoke down to 2' off the floor, in which area of visibility they found a casualty whom they removed downstairs. Ff Hoare ended his wear at 03:20.

ii) Likewise, Ffs Codd and Joseph were deployed under EDBA to effect rescues on the 22nd floor (T39/80:13), tallied out at 03:03 [LFB00023328], were separated in the thick black smoke when Ff Joseph helped remove a casualty, whereupon Ff Codd proceeded

alone and outside normal procedure (T39/83:15), but was unable to progress above Level 12 because he encountered further casualties (T39/90:12). Ff Codd ended his wear at 03:21 [LFB00023328].

e) As to her analysis of FSG calls (BLAS0000014_0078 & ff), Dr Lane has relied upon a document (MET00014452) provided by the police which is not available on Relativity and which we have been unable to review. Pending such review, her analysis of the numbers and timings of FSG calls is agreed for present purposes. We note also the number of FSG calls which were the subject of a 'service request' and notified to the incident ground in the early stages of the emergency response. Please see under "Handovers".

J. Pre-determined Attendance (PDA)

48) The PDA did not include an aerial appliance, any fire escape hoods, any EDBA, an officer in, or higher than, the rank of Station Manager (SM), nor a handheld airwave radio. Additionally, as can be seen below, there were only 10 firefighters available initially to implement PN633 and mount an attack upon the fire in Flat 16, the front door to which was forced open at 01:07.

49) At 00:59 the fire had been burning since before 00:50 i.e. for over 9 minutes when the first 2 appliances arrived at GT and the IC observed an orange glow in the window of a 4th floor compartment which seemed contained (T10/15). The firefighters implemented their high rise firefighting procedure PN633 (LFB00001256) to extinguish the fire in Flat 16. WM Dowden saw the exterior of the building but was unaware it was cladding (T10/16), let alone its potential for allowing rapid fire spread.

50) Five Ffs ascended the tower to set up the bridgehead on the 2nd floor lobby from which to attack the fire in Flat 16. By 01:08 when the 3rd and 4th pumps arrived, the fire had been burning for 18 minutes and had already spread to the rainscreen cladding system, although this was not then apparent to the firefighters.

51) The LFB have since increased the PDA for a fire in a HRRB. On the night, all 20 firefighters were very busy implementing PN633 to fight fire in Ft.16. There was no-one to staff the radio on the IC Pump, nobody to to look out for breach of compartmentation on each face, internally above and below, and no one to conduct a 360° recce, to check the internal fire safety measures. Going forwards, in future the PDA must be resourced sufficiently to carry out the tasks required to implement both PN633 and an evacuation procedure, if appropriate, on arrival at the scene.

52) The FBU believes it is legitimate to ask what difference an earlier arrival of the turntable ladder (TL) could have made. Assuming similar traffic conditions, had the TL been mobilised at 00:55, it could have been on scene at 00:13, the same time firefighters present decided to make the request. It is likely that the TL would have been more effective than firefighters at ground level directing a hose upwards and the deployment of a ground monitor.

53) The FBU believes this question is valid in light of LFB past practice and its subsequent decision making after the Grenfell Tower fire. In the past, the LFB routinely sent aerial appliances to high rise incidents, until the first safety plan in 2005. Since then these vehicles have been on request, a consequence of cuts. The LFB's document, Actions since the Grenfell Tower fire [LFB00024387_0006] indicates that since 22 June 2017, the LFB has changed the interim PDA for high rise buildings to at least five fire engines and one aerial appliance. This indicates that the previous PDA was insufficient.

K. Operational risk database (ORD) and s.7(2)(d)

54) En route WM Dowden, the incident commander ("IC"), was aware this was a call to a fire in a HRRB with a dry riser. From the mobile data terminal on Golf 271 he printed off the tactical plan for GT dated 30/10/09 (T9/163:10) of the LFB's operational risk database ("ORD") [LFB00003116_0004]. This contained no warning there was an external rainscreen cladding system, or that there was a combustible building envelope and there was no information

about an evacuation plan (T9/166:12) and had no plans. It wrongly described 20 floors whereas there were 24. It advised:

a) hand held radios for communications
b) there were 2 operational hazards "glass planning and the coanda effect",
c) there was a dry rising main
d) there was a negative pressure smoke ventilation system in the lobby of the fire floor with a panel at the main entrance,
e) there was no premises information box (PIB)
f) the building had a 'stay put' policy.

55) There was no premises information box at Grenfell Tower and no concierge or representative of the responsible person was there to answer questions until much later into the incident. The Local Authority Liaison Officer (LALO), Mr Layton, did not arrive at the scene until around 02:30 (T74/23).

56) The attending crews were thus given out of date and inaccurate information. The FBU considers sufficient time and resources should be allowed to enable fire crews to conduct s.7(2)(d) familiarization visits in accordance with PN633, considering all items listed in Appendix 1, and to write them up properly afterwards so as to maintain the currency and usefulness of the ORD.

L. Arrival of the PDA

57) The PDA arrived at GT under the command and control of Watch Manager (WM) Michael Dowden as Incident Commander, as follows:

Appliance	**Time of arrival**	**Crews**
Golf 272, North Kensington's Pump	00:59:24	Crew Manager (CM) Christopher Secrett, Firefighter (Ff) Thomas Abell (driver), Ff Alex De St Aubin, Ff Christopher Dorgu, and Ff Justin O'Beirne

Golf 271, North Kensington's Pump Ladder (PL)	00:59:28	WM Michael Dowden, CM Charles Batterbee, Ff David Badillo, Ff Daniel Bills (driver), and Ff Daniel Brown
Golf 331, Kensington's Pump Ladder (PL)	01:08:33	WM Brien O'Keeffe, CM Jamal Stern, Ff Benjamin Broderick, Ff Charles Cornelius, Ff Richard Hippel, and Ff Desmond Murphy.
Golf 362, Hammersmith's Pump	01:08:27	CM David Davies, Ff Wayne Archer, Ff Nicholas Barton, and Ff John O'Hanlon

M. Early incident command decisions

58) In response to the exterior fire spread, the IC made up the incident to 6 pumps (MP6) and one hydraulic platform (HP) at 01:12:59, amended from one HP to one aerial at 01:13:41, calling for more senior officers to attend with more resources. Thereafter, in response to the deteriorating situation, the IC repeatedly requested more resources including more senior officers:

a) he made pumps 8 at 01:19:08, whereupon Alpha 216, Paddington's Fire Rescue Unit FRU) was mobilized, with other resources, and subsequently arrived at Grenfell at 1:35:18,
b) he made pumps 10 at 01:24:09,
c) he made pumps 15 and aerials 2 at 01:27:35,
d) he messaged "Persons Reported" at 01:28:12,
e) he made pumps 20 and FRUs 2 at 01:29:11
f) he made pumps 25 at 01:31:30.

59) At 00.55 firefighters were mobilised to what they expected to be a compartment fire at Grenfell Tower. The first two appliances arrived at 00.59 and firefighters entered the building at 01:01. A bridgehead was established at 01:03 and hoses made ready on the fire floor. At 01:07 BA Team One (CM

Batterbee and Ff Brown) entered flat 16 and conducted a thorough search of the rooms. At 01:14 the crew opened the door to the kitchen for the first time. They made multiple attempts to put out the fire. They were joined by BA Team Two (Ff O'Hanlon and Ff Barton). By 01:21 firefighters had successfully extinguished the fire. Crews carried out their tasks efficiently and extinguished the fire inside the compartment in good time.

60) Throughout the early stages of the fire spread the IC was awaiting further resources which arrived at different times after 01:25. He remained in charge until he handed over incident command to SM Andrew Walton between about 01:50 and 01:57.

61) The resources requested by the MP6 arrived as follows:

Table of Resources available to WM Dowden before handover of incident command at 01.57 (per **ORR Version 0.1 [LFB00001914])**

Resources mobilised	Arrived at scene	Crews
Golf 361 Hammersmith Pump Ladder (PL)	01:25:06	WM Paul Watson, CM Matthew Sephton, Ff Patrick Murray, Ff Benjamin Felton Ff Mark Brodrick
Golf 362 Hammersmith Pump		
Alpha 212 Paddington Pump	01:26:56	CM Ben Gallagher, Ff Harry Bettinson, Ff Geoffrey Campbell, Ff Raymond Keane Ff James Wolfenden
Alpha 213 Paddington Turntable Ladder (TL)	01:32:07	CM Daniel Harriman, Ff Christopher Reynolds
Two Command Units:		
• CU8 (Fulham)	01.30:48	WM Meyrick WM Mark Kentfield
• CU7 (Wembley)	01.42:04 (est.)	WM Norman Harrison WM Peckham
Golf 261, Acton's PL	01.35:31	WM Nathan Ashe Ff Nicke Merrion

		Ff Will Murphy Ff Harvey Sanders Ff Mandeep Singh	
Two SMs	01:32:08 01.40:12	SM Brett Loft– first SM in attendance SM Andrew Walton – third SM in attendance	These resources requested at MP6
One GM as Monitoring Officer	c. 02:14 Status 2: 01:46, entered GT 02:28	GM Pat Goulbourne	
Press Officer (exclusive)	01.38:25	SM Cook – second SM in attendance	
One Fire Safety Officer (FSO)	01.58:39	SM Dan Egan	
One Fire Investigation Unit (FIU)	01.57.07	WM Leaver	
Fire Rescue Unit: Alpha 216, Paddington	01.35:18	CM Philip Wigley FF Andrew Harris	
Golf 341 Chelsea PL	01.39:13	9th fire engine in attendance under the command of WM Louisa De Silvo	
Golf 371 Chiswick PL	01.39:21	10th fire engine in attendance	
Golf 281 Willesden PL	01.40:01	11th fire engine in attendance	
Golf 25 Alpha Ealing OSU	01.42:29		
Hotel 271 Battersea PL	01.44:34	13th fire engine in attendance	
Alpha 411 West Hampstead PL	01.45:01	14th fire engine in attendance	
Alpha 231 Euston PL	01.45:04	15th fire engine in attendance	
Golf 351 Fulham PL	01.45:27	16th fire engine in attendance	
Alpha 241 Soho PL	01.46:23 (estimated)	17th fire engine in attendance under the command of	
Alpha 412 West Hampstead pump	01.46:50 (estimated)	18th fire engine in attendance	
Alpha 242 Soho pump	01.47:05	19th fire engine in attendance	
Golf 346 Chelsea FRU	01.47:33	2nd FRU	

Hotel 222 Lambeth pump	01.48:44	20th fire engine in attendance
Hotel 221 Lambeth PL	01.48:53	21st fire engine in attendance
Golf 291 Park Royal PL	01.49:44	22nd fire engine in attendance
SM Mulholland	01.51:36	3rd SM
SM Saunders	01.51:47	4th SM
Golf 301 Wembley PL	01.54:27	23rd fire engine in attendance
DAC O'Loughlin	01.54:30 (approx.)	First senior officer in attendance
GM Richard Welch	01.57:21	as BMA

62) Until around 01.40, available resources were significantly limited. Thereafter the problem was not so much speed of arrival, with large numbers of appliances and crew arriving between 01.40 and 01.57, but the ability of any IC to manage the influx of crews and ensure that they were funnelled through a single stairway up to higher floors so as effectively to conduct rescues or, if considered, evacuation. The FBU submits this process was well managed with appropriate delegation and sectorization.

N. SM Loft to manage FSGs

63) Meanwhile he and SM Brett Loft decided, at about 01:33 (ORR_0068) not to hand over command, but instead for SM Loft to manage the fire survival guidance calls (FSGs).

64) By 01:33, two service requests had been transmitted by radio from control to the incident ground:

Unique ID & time 999 call started	**Flat & floor**	**Number of people unable to leave**	**Service request MET00013830**
LFB00000314 - 01:30:02	175 on 20th	(Belkadi) family	01:31:38
LFB00000311 - 01:30:38	196 on 22nd	(Elgwahry) family	01:32:29

O. Insidious fire spread

65) At the time of this discussion firefighters thought they could extinguish the fire. But the insidious spread of fire had reached the crown and took hold on the north elevation:

a) Out of kitchen into cladding: From as early as 01:05 the fire has progressed outside the kitchen of Flat 16 and into the external façade. However, it did so in an insidious manner that was "unexpected", with no visible flaming outside. It was "creeping" into the façade [Torero T77/98-99]. As Dr Lane explained, by the time there was a visible flame front there had already potentially been 10 minutes' worth of localised heating of the materials on the outside of the building [Lane T79/163:1-5].

b) Up the east face initially: This insidious spread of fire then continued up the east face. Although by this point there was visible flaming on the exterior of the building, as Dr Lane points out, WM Dowden had no reason to believe that the fire was going to continue to race up to the top of the tower and across all faces. Even when the fire is as high as Floor 11 it was still a localised fire that could be potentially mitigated [Lane T79/168:4-8]. We know now that the catastrophic fire was inevitable as soon as the external façade became involved, given the materials and construction. However WM Dowden was not in a position to realise this until the fire had developed much further, by which point it was a fire that could not be stopped.

c) To the top of the east face: Although slower than in some other external façade fires, the fire quickly spread to the top of the east face. It travelled at roughly 4 metres per minute [Torero T77/107:24] and from Floors 19 to 23 within just 15 seconds [Bisby, Table 13].

d) Across the crown: Even when the fire reached the top of the east face, there was nothing to indicate to WM Dowden and the initial crews on the scene that this fire was going to envelope the entire tower. Previous external façade fires have self-extinguished once they have reached the top of the building [see JTOS0000001_0059 and Torero T77/106:14-21]. Lateral fire spread is usually limited due to the relative paucity of fuel and this is again shown in previous external façade fires [Torero T77/104-106] But Grenfell Tower had a bespoke architectural crown. The crown's construction, design and materials provided a pathway for the fire to laterally spread around the tower [Torero T77/149-150; Bisby T78/201; and Lane T79/88-89]. This lateral mechanism of fire spread was, according to Professor Bisby, "a unique situation which is a consequence of the architectural features of Grenfell Tower" [Bisby T78/201].

66) WM Dowden implemented a plan to fight the fire externally as he had been trained, but the fire spread was dynamic and by the time he was able to implement a plan, it was too late. For example:

a) he asked for a covering jet on the east face from about 01:06 as a precaution in case the fire broke out of Flat 16, but by the time it could be used (01:11 subject to the Chairman's finding of fact) the fire had already taken hold in the rainscreen cladding system and the covering jet was of little or no use.

g) Likewise, he was unable to attempt to fight the external fire from the roof until the first FRU arrived at 1:35:18 by which time it was too late, the external fire having already reached the roof at 01:27:58 (Prof. Bisby: T78/160).

h) Similarly, an aerial did not arrive until 01:32:07 and, despite preparing the ground, water was not applied to the east face until 01:47 (BLAS0000002_0019). By this time the external fire had already spread up the east elevation, involved the crown, and since 01:42 had been spreading down the north elevation (Dr Lane's Fig. 2.1 on BLAS0000002_0029) and, internally, about 26 flats were affected by fire (Dr Lanes's Table 2.2 on BLAS0000002_2000).

P. Defective fire safety measures

67) Firefighters suffered a slight delay, about one minute, trying unsuccessfully to take control of the fire lift. The drop key was correctly used but the override mechanism was defective. CM Batterbee and Ff Brown formed the BA Team One and tallied out at 01:04:11 and, at about the same time Ffs Dorgu, O'Bierne and Badillo laid the fire hose from the dry riser outlet in the 4th floor lobby to the front door to Flat 16 (ORR_0015). They were unable to make a compartment entry without securing a water supply. Meanwhile Ffs Bills and Abel set Golf 271 into a hydrant and connected 2 hoses to the dry riser inlet to supply the dry rising main. They then laid out a covering jet, also from Golf 271. The fire hose for BA Team One was charged with water at about 01:07 (ORR_0016) and they forced entry into Flat 16 at 01:07:21. Thereafter, applying their training and following procedure correctly, they applied water to the fire in the kitchen from about 01:14 (ORR_0024) until the kitchen fire was controlled at about 01:21.

68) A wet riser would have enabled BA Team One to enter the fire flat about 1½ to 2 minutes earlier than they did and would have freed Ffs Bills and Abel for other duties, such as staffing the main scheme radio on Golf 272, the Incident Command Pump (ICP). Taken together the delays due to the defective fire lift override switch and the absence of a wet riser, delayed the attack on the flat fire by about 2½ to 3 minutes. Without these delays BA Team One may have been able to apply water to the fire earlier. However by 01:08 the fire had already spread to the rainscreen cladding system and accordingly it is accepted that these delays made no material difference to the spread of fire.

69) Having a wet riser may however have facilitated some targeted rescue operations higher up the tower had it been available. A working fire lift may have been of use.

Q. Covering jet

70) Seeing the fire through the kitchen window from ground floor outside the tower, WM Dowden asked for a covering jet at 01:06 (ORR_0016) and it was laid by Ff Bills. This jet can be seen in use applying water to the east face from 01:15, albeit it had no discernible effect on the fire behind the water repellant rainscreen cladding. There is uncertainty about when water was first applied to the east elevation from this covering jet, although there is photographic evidence of a large puddle at the base of the east elevation at about 01:12 which WM Dowden explained could have come from the covering jet being either deployed or tested (T10/76:6 – 77:11). We submit on the balance of probabilities the firefighter evidence should be accepted as factual on this subject:

a) Ff Abell who recalled assisting his colleagues lay and deploy the covering jet above the kitchen window of Flat 16 (T14);
b) Ff Archer said in his police statement (MET00008001_0003) "*...The dry riser was already being set in, I got a 45mm jet off North Kensington's ladder, rolled it out and got it to work, I was spraying it just above the window where the flame was coming out which seemed to be helping with the fire...*" He was soon thereafter told to rig in BA and deployed in the tower. He tallied out at 01:21:07 (LFB00023328_0001). This fits with him having deployed the covering jet at about 01:11 as estimated by the LFB (ORR_0020).
c) Dowden above or below (T10/92:16)

71) Its effect on the exterior fire is a different matter. Water from below may have been able to enter the cavity between the rainscreen and the insulation and so it is possible that it slowed the fire spread without making a substantial difference, as Prof. Bisby said (T78/153:19). We submit that at most it can only have had a limited and temporary effect on the exterior fire. This is consistent with Ff Brown's evidence that when he applied water directly onto the exterior fire from the window of Flat 16, it had no effect (T13/34:3) and with the

evidence of Ffs Murphy (T38/32:13) and Cornelius (T38/68:9) that their application of a covering jet on the exterior fire appeared to have no effect.

R. Final Remarks

72) The FBU looks forward to participating fully in Phase 2 of the Inquiry. That phase should form a rigorous investigation, including cross-examination of all relevant witnesses from government and business, with the aim of reaching a full understanding of how this disaster could have happened and who and what is culpable for it.

73) The FBU may make further and supplementary submissions in writing or orally as appropriate.

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6th December 2018

IN THE GRENFELL TOWER INQUIRY

Chaired by
SIR MARTIN MOORE-BICK

FBU's Closing Statement for Phase 1 of the GTI

6th December 2018

CONFIDENTIAL

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