
MODULE 5

**OPENING STATEMENT ON BEHALF OF
THE LONDON FIRE COMMISSIONER**

Introduction

1. It is more than two and a half years since the London Fire Commissioner's (LFC's) Phase 1 Closing Statement was presented to the Inquiry. Since then, the LFC has continued the challenging process of ensuring that lessons are learned from the events of 14 June 2017 and has carefully considered and welcomed the recommendations of the Chairman in his Phase 1 Report of October 2019, which are being actively addressed.
2. In Module 5, the Inquiry will be returning to the London Fire Brigade's response to the fire on 14 June 2017 and some of the Chairman's findings in his Phase 1 Report. However, it does so against the backdrop of all that we now know about the causes of the fire and the failures of those responsible for the refurbishment and maintenance of Grenfell Tower.
3. The LFC has made it clear that the London Fire Brigade (LFB) must, and does, take full responsibility for its operational response to the fire and for ensuring that the knowledge gained from it is used to maximum effect for the future, while enhancing both public and firefighter safety.
4. That said, the LFB was not responsible for the causes of the fire, or the manner in which it developed, or the failings, which were exposed in Modules 1 to 3 of Phase 2,

on the part of some who were connected with the refurbishment of the building, precipitating the eradication of essential fire safety measures which, in turn, caused the devastating fire.

5. Had the process for the refurbishment of Grenfell Tower been conducted responsibly and in accordance with well-established design, construction and legal requirements, and had there been sufficient oversight by the building owner and the department responsible for signing it off as compliant, this tragedy would not have happened.
6. If the evidence adduced in Modules 1 to 3 over more than a year shows anything it is that the cumulative effect of those extensive and consequential failures, was the principal foundation of the disaster. It is of course entirely correct that aspects of the building construction and behaviour were within the experience and therefore planning of the Brigade. For example, the use – though not the misuse - of certain material on the exteriors, or the risk of some degree of compartmentation breach.
7. More broadly, and largely as a consequence of the evidence adduced in Phase 2, fire and rescue services have been placed in the position where they have to consider to the extent to which they can plan their operational response procedures to fires in high-rise buildings by anticipating similar widespread failures of building owners, designers, engineers, material suppliers, building control departments, contractors, Responsible Persons, risk assessors and other relevant parties to apply basic fire safety standards.
8. Planning for such eventualities through operational procedures and training is, of course, highly challenging not least because buildings such as Grenfell Tower were never intended to allow for firefighting and rescue on multiple floors, nor were they designed to facilitate a simultaneous evacuation of the full complement of residents.
9. That is why it is imperative that those who are responsible for the maintenance and refurbishment of such buildings do so without compromising the fire safety features upon which the effectiveness of a building's design and construction relies and upon

which, in turn, the safety of residents and the function of fire and rescue services is wholly dependent.

10. The progress that has been made by the LFC in addressing the Phase 1 Report recommendations, including new and revised policies, training and equipment, will be provided later in this statement. To make sense of that work and to better understand the LFC's approach to residential high-rise firefighting before the Grenfell Tower fire, as well as provide essential context for the issues which will be examined in Module 5, it is first necessary to revisit the key factors which impact on the ability of fire and rescue services to conduct operations in stay put buildings and the hard challenges which they face in doing so.

Reminder of the Basic Principles of Building Design and the Stay Put Principle

11. Here we repeat certain of the basic principles of building design for stay put buildings to which the LFC has referred in previous submissions to the Inquiry. The express intention of the regulatory regime is that, in the event of fire, the occupants of flats within the building are safe to remain in place (to "stay put") unless they are directly affected by fire or smoke. That is particularly important given the fact that simultaneous evacuation of the building is not factored into its design. The stay put strategy is not a creation of fire services in the UK but rather a principle of building design which fire services are expected to apply and which underpins the development of fire safety and operational policy for buildings of this kind.

12. It follows that strict adherence to the principle of compartmentation, together with a range of other active and passive fire measures, is obviously critical to the safety of such buildings and their residents in the event of fire. It is also critical to enable fire and rescue services to deal quickly, effectively and safely with fire in high-rise residential buildings. If, during the life of a high-rise residential building, proper active and passive fire measures are not maintained to the required standard, the entire basis upon which fire services are expected to conduct fire and rescue operations in

such buildings can be fundamentally undermined depending on the extent of the failings of such measures.

13. As Dr. Lane put it:

*“The fire protection measures must be constructed and then maintained to ensure they are fit for purpose in the event of fire. **The stay put strategy is provided through design construction and ongoing maintenance.** All building occupants, including the Fire Brigade, rely on it in the event of a fire. **It is the single safety condition provided for in the design of high-rise residential buildings in England.** The statutory guidance makes no provision within the building for anything other than a stay-put strategy. There is no means of warning nor a means to communicate the need to increase the areas to be evacuated as is currently regulated for other building uses.”*
(emphasis added) (Dr Barbara Lane’s presentation, 18 June 2018, pages 39-40)

14. More recently, in her Smoke Control Report, Beryl Menzies emphasised that the maintenance of the stay put principle is dependent on multiple fire safety measures working together. In other words, *“the circle of mutually supportive measures must be complete”* (Beryl Menzies’ Supplementary Report regarding the smoke control installation that formed part of the Building Regulations application associated with the refurbishment of Grenfell Tower, 20 April 2021 (Version 05), paragraph 159).

15. It follows that in developing operational procedures for firefighting, rescue and evacuation of high-rise buildings which are designed and built for a stay put strategy, fire and rescue services must now do so on the basis that the “single safety condition” may have been entirely compromised and the provisions for fire and rescue operations which the building was designed to facilitate consequently rendered inoperable. It is in this context that the LFC has developed new policies for firefighting in high-rise residential buildings following the recommendations from Phase 1 of the inquiry.

16. In short, fire and rescue services must now plan for operations in high-rise buildings which, by reason of their design, actively thwart attempts to fight fire, rescue and evacuate residents.

17. Some of the consequent obstacles which must be overcome have been addressed in previous submissions to the Inquiry. The intense work that the LFC has conducted since Phase 1 to meet certain of the recommendations and to develop improved policies and training, which are set out later in this statement, has revealed further challenges and highlighted the complexity of the task.

The Challenges to Fire and Rescue Services

18. The LFB has a range of policies, procedures and training which have always allowed it, and continue to allow it, to deal effectively with fires in stay put buildings since their inception in the late 1950s, provided those buildings perform as they should from a fire safety perspective.

19. It is of vital importance that public confidence in the stay put principle, which as we have observed is the single safety condition provided for in the design of high-rise residential buildings in England, is not lost. There exist many dangers for residents of such buildings who self-evacuate in numbers because of a lack of trust in fire safety provisions.

20. As far as can be discerned, all of the Inquiry's experts agree that, for the purpose of developing fire safety measures for high-rise buildings which are designed and built with a stay put strategy, the following assumptions are made by the Building Regulations and the broader regulatory system:

- Only single unit fires are anticipated or allowed for.
- Multiple fires on multiple levels are not anticipated or allowed for.
- Vertical or lateral fires on the exterior are not anticipated or allowed for.
- Simultaneous evacuation, on a large scale, is not anticipated or allowed for.

21. The viability of those assumptions and the integrity of the building's fire safety strategy, stay put, are dependent upon adherence to the principles of fire safety contained in the Building Regulations (and elsewhere) when constructing, maintaining or refurbishing the building.
22. The experts also agree that the primary factors impacting on the extent and gravity of the Grenfell Tower fire were the multiple fires on multiple levels caused by the vertical external and lateral fire spread, which was fed by the combustible cladding and insulation, and influenced by the architectural crown.
23. In his Phase 1 Report, Professor Torero summarised it in this way:

*"Firefighting protocols for response to high-rise building fires are intimately linked to a single floor fire. Furthermore, for residential buildings the firefighters should find, upon arrival, a single unit fire. Firefighting provisions, such as the water supply, are also dimensioned under the expectation of a certain magnitude of event. If vertical flame spread occurs this will require drastic modification of firefighting protocols and advance planning. As indicated in section 12.20[1] of Colin Todd's Phase 1 Report, "it is the role of the fire and rescue service to make a decision whether... evacuation is necessary". **Furthermore, the means by which the fire service can alter the strategy are very basic (by knocking on flat entrance doors, by operating sounders within residents' flats etc [in unusual situations if such sounders are installed] – (Section 12.20 [1]) and these are all approaches that are inconsistent with fire that has spread vertically or horizontally.**" (emphasis added) (Jose Torero Phase 1 Report, 23 May 2018 (Revised 21 October 2018), page 25 – 22.10.18)*

24. It follows that the extent to which any fire and rescue service can mitigate the consequences of a fire such as that which occurred at Grenfell Tower, where there is extensive vertical and lateral spread of fire, is confined by the "very basic" strategies which the design of the building permits.

25. The LFC's new and revised policies and procedures are designed to address buildings which fail to perform broadly as they should, by reason of the failure of responsible persons and duty holders to ensure that active and passive fire measures are present and effective to maintain and support the stay put principle upon which they were designed and built.

Firefighter Safety

26. One of the primary challenges in planning and executing firefighting and evacuation in such buildings was identified by the Chairman in the Phase 1 Report in the context of the Grenfell Tower fire:

*"Although [the physical deployment of firefighters into the building both to inform occupants that they needed to leave and assist with evacuation] might have **exposed the firefighters** (very few of whom had EDBA by 01.50) **to serious danger higher up in the building**, it was at least a possible use of the gradually increasing number of incoming crews". (para. 28.42)*

*"I recognize 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**". (para. 28.63)*

*"AC Roe's strategy was to flood the building with as many EDBA wearers as were available and to provide as much assistance as possible to the remaining occupants. The strategy was both bold and necessary. **However, it meant that firefighters would be deployed into the tower without any firefighting equipment, which was both contrary to policy and created a very significant risk to their safety**". (para. 28.80)*

27. The LFC has previously expressed his appreciation to the Chairman for his acknowledgment (at Chapter 28.1 of the Phase 1 Report) of the bravery and selflessness of firefighters who were deployed into Grenfell Tower, and his broad

approval of the sentiments as expressed in (then) AC Roe's evidence to the Inquiry when he said:

"I think there is always room in big organisations for improvement to systems, to improve training. I think there is always room for improvement to the underlying conditions in which our people operate. But actually, in terms of the response on the night, I could not have been prouder to be a London firefighter, nor lead the men and women of the London Fire Brigade, because I felt that they operated in the best traditions of our 150 year history and put themselves at enormous risk for hour after hour after hour, and that we were battling against what was frankly an absolute failure of the building system, and they had done their absolute best in intolerable circumstances. I have nothing but praise for my junior officers who performed well beyond what was acceptable in terms of their physical and mental capacity, and, actually, in some numbers have paid the price consequently. It was a privilege to lead them and I am very proud of what they did". (Phase 1, Day 49, 26 September 2018, page 199, lines 1-22)

28. Of course, firefighting and effecting rescue is, of necessity, a dangerous occupation even where the built environment broadly adheres to established fire safety measures. But the potential obligation on fire and rescue services to assume, when planning fire and rescue operations, that such measures will be ignored or flouted to a substantial degree by building owners, places substantially higher risks on firefighters and residents alike.

29. The perennial question for fire and rescue services is where the line should be drawn? At what point, notwithstanding the overarching desire and will to save saveable life, does the risk to firefighters become too great to justify under health and safety legislation? How far can fire and rescue services push the risk envelope while maintaining its duty to protect the safety of its employees? This very dilemma has been highlighted in the recent consultation in respect of the Brigade's revised high-rise firefighting policy where the appropriate safe use of breathing apparatus by firefighters above the bridgehead has been the subject of considerable debate and

disagreement between the FBU and LFC resulting in the commissioning of an independent health and safety advisory panel process to reach an outcome.

30. As HSE Guidance points out, *“It is important to recognise that firefighters should not be expected to put themselves at unreasonable risk, even in the face of sometimes unrealistic public expectations.” (Striking the balance between operational and health and safety duties in the fire and rescue service: HSE 2010).*

31. As was made clear on behalf of the LFC in its Module 3 Opening Statement, the extent to which the LFB – or any fire and rescue service – can or should be expected to anticipate, plan for, and resource the possibility of catastrophic failures of fire safety measures in the built environment remains of fundamental importance to the sector. The expectations that can properly be placed by a fire and rescue service on its personnel is a critical aspect of that question. The fundamental failure of basic fire safety measures in buildings such as Grenfell Tower present an obvious serious risk, not only to residents but also to firefighters who depend on the existence of such measures when carrying out their duties at great personal risk.

32. In that regard, the current LFC wishes to add further context to the Chairman’s entirely accurate characterisation of his strategy on the night of the fire as *“to flood the building with as many EDBA wearers as were available”*, by reference to the evidence which he gave in Phase 1 which recognised that whilst the strategy itself was simple in its intent and desired outcome, the kinetic nature of the situation, challenges of coordination and the pressing need to have close regard to firefighter safety meant the delivery of that strategy was a difficult and complex task.

“[Andy Loughlin had] confirmed that he had put in place an operation to commit as many breathing apparatus crews as possible into the building and I concurred with his view on that, that it was going to be very difficult to prioritise in detail and, therefore, we had to focus on just continuous volume of crews in to make sure we swept everybody up in the rescue operation. The only way we could do that was to ensure we had that volume in there.

That was very challenging.

I think I need to set that in the context. So to maintain the volume -- and, actually, I'm really proud of the officers like Dan Kipling, who ran BA main control, and Dave O'Neill, who was securing and managing the access/egress. Those were extremely complex tasks. It's not as simple as people just walking into the building. This was the management, the recovery, the refreshing of sets, BA sets, to maintain a continuous stream of people into a building which was very difficult to access, maintaining egress for the other crews coming out, to not have a break in that operation, as far as I'm aware, I think was entirely impressive on those officers' part. I think that was very, very, very difficult. Actually, whilst I think you can focus on the question of prioritisation, my sense was the best way we were going to give people the best chance of being rescued was simply to flood the building with firefighters, and to do that, it was a massive effort to do that as safely as we possibly could, maintain throughput of resources so there wasn't a break. To my knowledge, there was never a break in committal unless there was a reason to fight the fire to enable committal to continue." (Phase 1, Day 49, 26 September 2018, page 69, line 18 to page 70, line 25).

33. In the years following the Grenfell Tower fire the LFC has made strenuous efforts to address this challenging issue in liaison with many stake holders, including the National Fire Chief's Council and the Fire Brigades' Union. The LFC has commissioned and led ground breaking research in association with the University of Bath into the physiological effects on firefighters who are deployed into high-rise buildings, which has revealed significant results, which have a direct impact on the capabilities of fire and rescue services.

34. That research has enabled fire and rescue services to more effectively identify the constraints on the activity of firefighters in high-rise buildings, both in relation to maximum travel distances up stairwells while encumbered with essential equipment

and in relation to different forms of breathing apparatus all of which have their own limitations.

Internal/External Firefighting

35. As the evidence in Phase 1 made clear, the statutory requirements for the design of residential high-rise buildings are predicated on the basis that fires in compartments must be fought internally and that is the principle which supports fire service policy and training for such fires.
36. The Inquiry heard that the deployment of external jets of water into an internal compartment through a window cannot be done safely because of a number of risks which firefighters or residents within the compartment would be exposed to. In the course of the Phase 1 hearings it was suggested that it may have been an option to abandon internal firefighting in the early stages of the fire so as to allow an external jet to aggressively attack the fire on the cladding above and below the window of Flat 16 without risks to firefighters and residents within the compartment.
37. Of course, several attempts were made to attack the fire externally in order to prevent vertical fire spread. An external jet was applied to the cladding in the vicinity of the window of Flat 16 in the early stages but with care, in the knowledge that firefighters were within the compartment attacking the internal fire. Jets were deployed externally from within Flat 16 itself, and later aerial appliances were used. In most cases those efforts were made with limited effect on the vertical and lateral fire spread.
38. That said, despite the challenges in fighting an external fire on rain screen cladding, which was designed to repel water, and given the limitations on the use of aerial ladders, there is clear evidence that the Brigade succeeded in applying water to all four sides of the building and that the downward vertical fire was limited to some extent primarily as a result of the Brigade's intervention (see Steve McGuirk's Report, January 2021, paragraphs 183-184 referencing Dr Barbara Lane's Section 17

Supplemental Report – External Access for the fire and rescue services – the provisions at Grenfell Tower, 24 October 2018 {BLAS0000017}, sections 17.3.79 and section 17.4, particularly 17.4.5 [but also see 17.4.6] and Professor Luke Bisby’s Phase 1 – Final Expert Report, 21 October 2018 {LBYS0000001}, p.192, para 929.)

39. However, assuming that it would have been reasonable at the early stages to anticipate that the fire in the external cladding would spread as far and as rapidly as it did, it would have been a fundamental departure from high-rise firefighting procedure to abandon internal firefighting. This is because it would have allowed the fire to develop further and breach internal compartmentation and compromise the ability of firefighters in the tower (who were deployed to fight fire) to rescue or assist residents they came across who were in obvious danger or seeking help.

Fires on Multiple Floors

40. While the statutory requirements for the design of high-rise residential buildings provide for internal firefighting, they do not contemplate that fire services may be required to fight fires on multiple floors simultaneously.

41. At Grenfell Tower, firefighting on multiple floors was essential. This meant that doorways from numerous lobbies to the stairwell were required to be open for a significant period, thus breaching the normal rules of protection for the escape route.

42. Importantly, whether a building is fitted with a dry or a wet riser, the provision is for only two firefighting jets to be connected to the main, which is sufficient to deal with the single compartment fire envisaged by the building regulations. The use of further hoses connected to riser outlets to fight fires on other floors at the same time results in an exponential reduction in water pressure to a degree which renders the ability to extinguish a fire inadequate. In short, the available water supplied via the rising main and the associated water pressures are insufficient to accommodate multiple hoses in the riser outlets on multiple floors. The regulatory regime simply does not contemplate a possible need for firefighting in such circumstances.

43. Indeed, the whole basis upon which active and passive fire measures are provided in buildings of this kind is that a fire will occur in one compartment and, subject to relatively localised breaches of compartmentation, will be contained for sufficient time to allow fire services to address the fire and put it out.

44. As a further example, that is why the ventilation system at Grenfell Tower was designed only to extract smoke from one lobby at a time and was not capable, even if working perfectly, of doing the same job on multiple floors. In the event, according to the Inquiry's experts, this ventilation system did not work as it should do in a number of respects. That was because its design meant that should a door be opened to a flat in which there was a fire, the smoke from that fire would be drawn into the lobby rather than to keep the lobby clear. That problem was exacerbated by the absence of self-closers, which the evidence has revealed.

Evacuation

45. The challenges set out above in respect of firefighting in buildings such as Grenfell Tower have been addressed in revised policies and procedures by the LFB insofar as is practicable. It has been said that the rapidity and extent of the fire at Grenfell Tower was such that there came a point when the LFB should have abandoned firefighting in favour of simultaneous evacuation. However, the effectiveness of any evacuation in a building which is on fire requires a continuing firefighting effort to protect escape routes and the residents and firefighters who use them. It is the LFC's firm view that to attempt to evacuate a building without continued firefighting efforts to maintain escape routes involves a very significant risk of serious injury or loss of life.

Simultaneous Evacuation

46. There is a significant distinction between stay put buildings and most other types for the purposes of evacuation. For example, in hospitals, care homes, hotels, office buildings and so on there are evacuation plans formulated by the Responsible

Persons, which require alarms systems, fire drills, alternative means of escape (other than a single stairway), sprinkler systems and so on.

47. But, as we have seen from the expert evidence to the Inquiry concerning the assumptions in the Building Regulations referred to above, residential high-rise buildings designed to support a stay put strategy are not intended to be evacuated and their design does not allow for it (because the stay put principle requires building owners to maintain the fire safety measures to a high degree so as to support it).

48. The consequent challenges faced by fire and rescue services, which the LFC entirely accepts must be met where possible, were illustrated on the night of the Grenfell Tower fire, with the following factors being particularly pertinent:

- (a) that the building was not designed or constructed to facilitate such evacuations through the provision of fire alarms or the ad hoc existence of an evacuation plan by the building owner;
- (b) the absence of any practical mechanism by which to effectively communicate with the occupants of the entire building;
- (c) the availability of a single staircase as a fire escape route which was also the only means by which fire fighters wearing breathing apparatus, carrying firefighting media and other equipment, could access the upper floors (in the absence of a working fire fighter lift);
- (d) the likelihood that rapidly changing conditions in the building as the fire developed might create toxic and potentially lethal conditions through which residents would be required to pass without respiratory protection;
- (e) the vulnerabilities of a significant number of residents of the Tower, including mobility and sensory impairments;

- (f) the fire at Grenfell Tower occurred in the middle of the night when many residents were asleep and were unwholly unprepared for a building-wide evacuation.

Evacuation procedure learning from other fires world-wide

49. The LFC acknowledges that there is much to learn about fire behaviour in modern high-rise buildings from examples of other fires around the world which can inform the development of policy and procedures to address similar fires in London and across the country. Recognising the importance of this, since the Grenfell Tower fire, the Brigade has reviewed the process by which information is channelled from the Brigade's fire safety and engineering department to operational staff so as to improve the mass of information available to incident commanders about fire behaviour in high-rise buildings in the context of the increasing complexity of construction design and the materials used in new builds and refurbishments.
50. However, the extent to which examples of other fires around the world can inform the development of evacuation procedures for stay put buildings is more restricted than the understanding it can give the Brigade about matters of fire behaviour. As the Inquiry's experts have recognised, the information available in respect of many of the cladding fires on buildings outside the UK, which were identified in Phase 1, was and remains relatively limited. They were often very different fires in differently designed buildings with different regulatory requirements. Many of those fires were in buildings which were either designed and built to support simultaneous evacuation or in respect of which limited information is available. So, while development of evacuation procedures for stay put buildings in London quite rightly must be informed by evidence of external and internal fire spread and behaviour seen in other fires around the world, the mechanisms for carrying out such evacuations must be led by considerations of the design and construction of such buildings under UK regulatory requirements.

GRA 3.2 and Contingency evacuation plans for stay put buildings

51. Whilst Generic Risk Assessment 3.2 Version 3 (GRA 3.2) will be examined in detail in Module 6, it is impossible to disentangle it from the issues to be addressed in Module 5. The government's Generic Risk Assessment (previously published as Version 2 in September 2008) was intended to assist fire and rescue authorities to draw up their own risk assessments, based on the operational intelligence that they hold for their area, and to develop their own safe systems of work. In Version 3 of GRA 3.2 the guidance recommends the preparation of contingency plans for the evacuation of stay put buildings if the stay put principle becomes untenable (see pages 17, 19-20 and 29 of GRA 3.2).
52. At paras 27.3 of the Phase 1 Report the Chairman expresses the view that the effect of GRA 3.2 is that fire and rescue services are "obliged" to ensure that they have contingency plans in place for the total or partial evacuation of stay put buildings. In particular, "FRSs are required to understand, of any given high-rise building in their area, when partial or full evacuation might become necessary and to provide training to ICs in evacuation and casualty removal tactics".
53. At the time of the Grenfell Tower fire, the LFC entirely accepts that the LFB did not have such contingency plans and had not trained operational staff on the circumstances in which such an evacuation might be carried out, a position reflected more widely across other UK fire and rescue services. Part of the reason for that may lie in the fact that, despite the provisions of GRA 3.2, there had never been any national operational guidance as to how to manage the full or partial evacuation of a high-rise building with a stay put strategy or to deviate from any of the other planned evacuation strategies that might apply to a high-rise building.
54. Following the Chair's recommendation in the Phase 1 Report that government develop national guidelines for carrying out partial or total evacuations of high-rise residential buildings (33.22(s)) no such guidelines have been issued to date, although

the LFC understands that a working group has been commissioned to undertake that task.

55. The LFC, recognising the importance of that recommendation, has addressed as a priority a similar recommendation in the Phase 1 Report (directed at fire and rescue services – 33.22(b)) by the creation and adoption of a new Evacuation Policy, which will be explained in more detail below.

56. It should be noted that the contents of GRA 3.2 were intended to be, and were, informed by a consultation process with fire and rescue services and other stakeholders, such as the Fire Brigades Union and Health and Safety Executive. However, evidence has revealed that, in drafting Version 3 of GRA 3.2, no such consultation took place in relation to the reference to contingency plans for stay put buildings, which was added at a very late stage in the document's development by DCLG, several months after LFB had completed the version which had been consulted on and which was believed at the time to be the 'final' version.

57. There is no explanation within GRA 3.2 as to the mechanism by which contingency plans should be carried out. However, the LFC is satisfied that the process he has adopted in the revised high-rise firefighting policy meets this expectation and is in accordance with the former generic risk assessment and with the current approach adopted under National Operational Guidance.

58. For the avoidance of doubt, contingency evacuation plans are not being developed for each individual high-rise premises in London or, to the best of the LFC's understanding, anywhere in the country. That is because:

- (a) Stay put buildings in question, by definition and design, share many of the same key features which often include the presence of a single stairwell, the absence of alarm systems or mechanisms for communicating with residents, limitations on the ability to fight internal fires on more than one floor at a time and so on. Accordingly, it is reasonable and appropriate to develop generic policies and training in response to and in anticipation of those common features and to provide guidance to manage

evacuations as a contingency. Guidance for the recording of individual features of particular buildings which might impact on evacuation has been provided in the revised Management of Operational Risk Information policy with commensurate training.

- (b) Even specific contingency plans for individual buildings will not necessarily be able to address the wide range of potential circumstances that the FRS may face. Therefore, it is considered to be a more effective approach to provide operational crews and ICs with the right underpinning knowledge and a range of options to consider and utilise as appropriate to address the scenario being encountered. It should be noted that in London approximately 8,000 high-rise buildings are being assessed within this category as part of the Building Risk Review being undertaken in conjunction with the MHCLG.

Control – Fire Survival Guidance

59. The LFC understands that issues concerning the operation of the LFB control room on the night of the fire and the provision of Fire Survival Guidance (FSG) by control staff to residents is to be addressed in Module 6. In the circumstances the LFC will reserve more detailed submissions on this issue until the appropriate time but it is important to re-emphasise certain matters, which may have a bearing on the issues to be addressed in Module 5.

60. In Phase 1 the LFC expressly accepted (in closing submissions) that there are undoubtedly lessons which must be learned from the night of the fire in respect of control room policy and training. Examples of new and revised procedures and training which are informed by those lessons are set out later in this statement.

61. It is an inescapable fact that that no single control room in the UK has the capacity to fully process, provide contemporaneous liaison with the fire ground, give exclusive and often prolonged attention to every individual caller through the provision of fire

survival guidance or otherwise, for the overwhelming number of calls which the LFB control room was faced with on 14th June 2017.

62. That is a major challenge for all fire and rescue services when planning operations to address buildings designed with a stay put strategy in which active and passive fire safety measures fail on the scale experienced at Grenfell Tower.
63. One of the mechanisms for addressing this challenge involves the further development of national mutual aid protocols with other fire services which the LFC is actively progressing, again taking the national lead.
64. Another key challenge when there are very large numbers of calls to the control room is the extent to which control room officers can interrogate callers to ascertain the conditions within and immediately outside their flats. Even with manageable numbers of calls, that is an issue which has always presented real difficulties in the training of control room officers nationally. Remote from the fire ground they have no means of carrying out an objective assessment of the conditions immediately outside the callers' flats or beyond. They are reliant to a very large extent on what they are being told by the caller. Since Grenfell, the Brigade has developed technology to improve the situational awareness of control room officers, including the use of the 999eye system, which live streams footage from a caller's mobile device direct to the control room.
65. During the Grenfell Tower fire, advice to residents provided by officers positioned remotely in the Control Centre (and by firefighters within the building) involved assessments of risk which are complex and advice to residents whether to stay or leave involved substantial risk either way.
66. For the purpose of making any recommendations in its Phase 2 Report, the LFC urges the Panel to carefully consider the challenges of providing fire survival guidance to occupants of a building with a stay put strategy which is failing during a fire. While it might appear the simplest way to address this would be to inform residents to get out

and stay out where the stay put principle has been undermined, there remains a significant danger that they will then be directed into a lethal toxic environment with no hope of rescue.

67. However, it is important to re-emphasise here that fire services, when attending fires in premises of this kind, do not interpret the stay put principle to mean that residents should remain in their flats whatever the circumstances.

68. On the contrary, part of the advice to residents who call the fire service control room is that, if their flat is directly affected by fire or smoke, they should leave if it is safe to do so. It is in the assessment of that question that great difficulty lies.

The LFC's learning process - new policy, procedure and training

69. The LFC has continued the process of assessing LFB policy, procedure and training to reflect the learning from the Grenfell Tower fire. It has been the LFC's priority since his appointment to drive forward progress against the recommendations the Chairman made following Phase 1, recognising the need to demonstrate that the LFB is a learning organisation committed to continuous improvement. Some of the new measures which have been introduced address the recommendations in the Phase 1 report, while others represent the Brigade's own ongoing process of learning and development, which is central to its ethos and a key feature of its operational planning.

70. A suite of new and revised measures has been adopted following wide consultation and careful consideration of the multiple challenges which fire and rescue services face when planning and executing fire and rescue operations in high-rise residential buildings whose active and passive fire safety measures have been seriously compromised.

71. Among the changes are a trio of new and revised policies which address high-rise firefighting, evacuation and fire survival guidance. Each of these policies, which are, in

many respects closely interlinked, provide guidance and procedures for incident commanders and control staff to follow, including communication strategies, in extreme circumstances of the kind experienced in the Grenfell Tower fire.

72. In relation to high-rise/evacuation, a vast face-to-face theory training programme was delivered to approximately 4,500 staff over the course of and within a year, during the Covid-19 pandemic. This involved attending a day long 'exercise overload' session, which is partly appliance based, and is designed to replicate through role play and the involvement of control the management and passage of a large numbers of FSG calls. This is being followed by large scale exercises – the first pilot has already taken place - to which all the officer cohort will be invited, and which are designed to place incident and other commanders into situations which (barring flame) are as real as possible by, for example, using smoke generation and simulated casualties. There is a mentoring process – in part mirroring the monitoring officer role – designed to provide additional support to more junior officers. A new FSG App has been developed for use during any incident where FSG is being given and a stay put strategy is in place, providing a single point of logged information simultaneously displayed in Control, the bridgehead, and at the incident generally, and this will be incorporated into training once its fully active. Again, the LFB is leading the national service in developing a technological solution that has not previously been available on the market. The LFB continues to work with partners to seek appropriate venues to expand this programme.

73. Further policies address risk information gathering and incident command while extensive work had been carried out to improve information sharing between the Brigade's specialist fire safety and engineering department and operational staff.

74. In the field of incident command training the LFC has established a dedicated Incident Command Training Team to ensure that a golden thread of training is implemented from the control room officers through to command unit crews, facilitating more effective lines of communication between Brigade Control and the incident ground.

The Incident Command Training Team, with a detailed structure and appropriate funding, will deliver the following areas of the Incident Command Strategy:

- A revised incident command maintenance of competency framework;
- A revised maintenance of skills programme;
- Enhanced links with learning from incidents;
- The opportunity to deliver strengthened incident command training that combines Brigade Control and the Command Unit Integration Project at the London Operations Centre;
- A new initiative to closely align incident command procedure and training with National Operational Guidance.

Risk Information Gathering

75. The Brigade's risk information gathering policy (PN 800) has been subject to a careful revision and an updated policy has been adopted. The changes to operational risk information gathering have enabled crews to be more familiar with the built environment in their station areas in advance of any fire and recent training to all operational staff has meant that they understand and are better able to recognise the signs of the building failing and put appropriate mitigations in place. The revised policy and the refreshed training requirement for all operational staff and that work has been assured by the Brigade's newly appointed, independent operational assurance advisor. His conclusion is that PN 800 provides a "robust process" for the gathering, recording and dissemination of operational risk information.

76. Other work relating to operational risk information includes:

- the ORI (Operational Risk Information) project, through which the external façade has been incorporated into systems of building assessment;
- the Building Risk Review, through which all high-rise buildings in London are being assured against both PN800 and fire safety guidance, which has involved the

inspection of over 7,500 buildings to date of approximately 8,000 buildings by the LFB; and

- further significant investments in the fire safety department.

High-rise Firefighting

77. An extensive review of the Brigade's High-rise Firefighting policy (PN633) has been conducted resulting in the adoption of a revised policy which provides Incident Commanders and firefighters with a range of new and improved procedural tools to be used in high-rise firefighting including the following:

- Comprehensive guidance on how to recognise the signs and symptoms of high-rise building failure from a fire safety perspective.
- Protection of the stairwell: by providing tactical flexibility to support crews in maintaining compartmentation of stairwells, an essential component to assist evacuation or rescue of occupants.
- The introduction of stairwell safety teams to monitor conditions in the stairwell and assist crews and occupants.
- Dedicated external spotters to inform commanders of changes in fire behaviour and assist their situation awareness and decision making.
- Guidance regarding how to manage the increased risk of Emergency Evacuation and Mass Rescue.
- Better understanding of the Brigade's capability to keep firefighters and occupants safe gained through physiological trials, including: risks of heat related illness; use of extended duration breathing apparatus and taking breaks.
- Use of extended duration breathing apparatus for emergency teams, stairwell safety or emergency evacuation in the early stages of an incident.

Evacuation

78. A new Evacuation and Rescue from Fires in Premises policy has been introduced, which recognises the very high levels of risk which can be created for members of the

public and emergency responders when a building does not behave as fire safety requirements intend and the resulting fire exceeds 'normal' expectations. Among other things it provides guidance and procedures for incident commanders to follow where there may be a need to depart from a building's planned evacuation strategy or where it may be necessary to effect a mass evacuation or emergency rescue operation in a building with a stay put strategy.

Fire Survival Guidance

79. The LFC's existing policy (PN 790) which, among other things, concerns the Brigade's procedures relating to the provision by control staff of fire survival guidance to emergency callers, has been the subject of a fundamental review which began in the months immediately following the Grenfell Tower fire.

80. This included focussing on the issues in the policy which were initially highlighted by the Grenfell Tower Investigation and Review Team (GTIRT). A stakeholder group was formed between officers in Operational Policy & Assurance (OP&A) and Control to examine the challenges associated with managing fire survival guidance (FSG) calls. Since 2018, FSG test exercises have been carried out, which have informed the changes to the policy.

81. The revised policy seeks to address the challenges faced when dealing with multiple FSG calls by ensuring that all those personnel who could either receive an FSG call in Control or are liable to attend incidents which may involve FSG calls have a secure understanding of the procedures that underpin these activities. It also addresses the mechanisms by which FSG information is communicated between the control room and the incident ground.

Control – Communications

82. In relation to communication between the control room and the incident commander, the Chairman made four recommendations in the Phase 1 Report

(Chapter 33, paragraph 14). Each of those recommendations has been the subject of careful consideration by the LFC and has been addressed in revised policy, procedure and training, as will be detailed in Module 6.

Communications

83. To meet the recommendations of the Phase 1 Report, Command Units have been upgraded from 3G to 4G and, as of March 2021, all of the hardware servers on each of the 8 LFB CUs have been replaced with up-to-date systems. The combination of better connectivity and new hardware has resolved the majority of the command support system (CSS) problems. All CU staff have received refresher training on using CSS.
84. While waiting for the 4G upgrade, 2 standalone laptops (4G enabled) were provided to each CU as a backup to ensure access to CSS if the 3G system went down. The standalone laptops have been retained as resilience. They also provide flexibility for the incident commander should they decide to manage the incident from a different location because they can establish themselves away from the CU using a laptop.
85. The Brigade has investigated ways to improve radio communications between BA crews and the bridgehead, including when operating within high-rise buildings. This has led to the procurement of more powerful fireground radios and new, improved radio repeaters. The related project to provide new breathing apparatus sets and new radio interface equipment is currently underway and is scheduled to be completed in May 2022.

Equipment

86. The Brigade has introduced new equipment, including fire escape hoods and high-rise grab packs, which, since 2018, have been used to carry out around 105 rescues at 49 incidents, including 22 of the 35 rescues carried out by firefighters in May this year at the New Providence Wharf fire in Poplar. A fleet of 12 new 32 metre aerial ladders are now operational and three 64 metre ladders, which will be the tallest in the

country, are set to come into service by September. A new drone capability has been introduced to assist Incident Commanders with situational awareness at incidents.

Conclusion

87. The question whether the London Fire Brigade is a learning organisation will be informed by the evidence of those past and present senior officers, who are to give evidence in Modules 5 and 6, when they are given an opportunity to explain the challenges (and the realities) of providing firefighting and rescue services in one of the most populous, complex and densely built cities in the world.
88. For the present, the LFC reminds the Panel of the assertion he made in his evidence towards the end of Phase 1. He has always been clear that large organisations must always develop policy and procedure through learning from experience, and that culture must be embedded and never ending. He is clear that the London Fire Brigade must be proactive in its approach, particularly with regard to the increasing complexity of modern construction and design methods and materials, in so far as they impact on fire safety.
89. All fire and rescue services must seek to achieve this according to the rules which govern the development and maintenance of the built environment.
90. However, under the current organisational structure of fire and rescue services in the UK, which is dictated in large part by legislative requirements, they cannot be expected to be the safety net for the broader and deeper seated failings of those who are responsible for the safety of the buildings they construct and maintain, or for the perceived inadequacies of the regulatory system which governs them.
91. In respect of the Grenfell Tower fire, the LFC reminds the Panel of the view expressed by Dr. Lane when she said:

"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". (Barbara Lane, Phase 1 Report – Section 2 – Conclusions and Next Steps, 5 November 2018, paragraph 2.10.1)

92. Of course, following the Grenfell Tower fire, all fire and rescue services are alerted to dangers which can exist in buildings of this kind where refurbishment and/or maintenance of previously safe buildings has been conducted in a way which fundamentally undermines the fire safety measures provided by their original design and construction. That is why the LFC's range of new and revised operational procedures have been introduced.

93. That is the challenge facing the London Fire Brigade and all other fire and rescue services in the UK. It meets it head on where it can. It strives to address every element of potential learning to the extent that it can, according to the resources that it has and the expectations, often financial, which are placed on it by those who, ultimately, control the available budget (to whom no adverse inference is intended because, they too, have competing demands and challenges).

94. What is clear, at least, is that the primary responsibility to ensure the safety of the built environment lies with those who build and maintain it and those who have statutory duties to regulate it.

95. The LFC's paramount consideration is, and always has been, to protect the safety of Londoners in case of fire and other emergencies. That same consideration was the imperative behind the determined efforts of firefighters on the night to do their best to save as many lives as they could and did. The interests of the bereaved, survivors and residents of Grenfell Tower remain at the very heart of the LFC's continuing commitment to learn from the tragic events of 14th June 2017 and to effect meaningful change wherever possible.

Stephen Walsh Q.C.

Sarah Le Fevre

Emma Collins

26 July 2021