Wednesday, 12 December 2018
(10.00 am)
SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to today's hearing.
In a moment I'm going to invite Ms Jarrett to make a closing statement on behalf of the TMO, but before that, I think Mr Millett has something he wishes to say.
MR MILLETT: Yes, Mr Chairman, thank you.
I just wanted to make it clear that there will be a shortening of today's timetable for this reason: both PSB and Rydon have indicated to us at the end of yesterday and overnight that they do not now wish to make oral submissions, so they leave us only with their written closings. We'll have to arrange the timetable a little bit around that.
SIR MARTIN MOORE-BICK: Yes. Well, thank you for letting us know.
Now, Ms Jarrett, I invite you to make your statement on behalf of the TMO. Thank you.
Closing submissions on behalf of the Kensington & Chelsea Tenant Management Organisation by MS JARRETT
MS JARRETT: Thank you, sir, for giving us this opportunity to address you on the evidence that has formed part of Phase 1. We hope that what we say will be both appropriate and helpful to you at this stage.

The evidence we have heard from the bereaved, survivors and residents, and from the men and women who attended on the night of the fire to try to save lives has been humbling. We've heard the accounts of those who have lost so much, but have all attended to give their evidence with such dignity and clarity. Their evidence is invaluable; it is also haunting. This evidence and the evidence of firefighters must be vital in helping the inquiry understand how fire and smoke spread, but also, crucially, to understand why so many did not evacuate and, as a consequence, lost their lives.
The TMO now no longer has a role in managing housing stock and delivering services, and it no longer employs a workforce to carry out these functions. However, it will remain in existence until the public inquiry and other relevant legal processes are completed. It continues to fully support the ongoing work of the inquiry, and the TMO encourages you, sir, to make findings where you are able to at this stage. We recognise that this will be with a view to making important recommendations.
However, due to the short time frame in which extensive evidence has been produced and heard, the forensic investigations that are still outstanding, and

the extent to which experts have repeatedly referred to their conclusions as being professional, the scope of your findings will necessarily have to be limited at this stage. But there are important findings to be made. As well as establishing the factual narrative of what happened on the night, we hope you will consider how the fire started and how it spread across the envelope of the building.
In respect of the evidence you have heard, and in addition to our written submissions, we wish to make oral submissions on four topics.
1. The building envelope.
Dr Lane, Professor Torero and Professor Bisby all conclude that the uPVC window surrounds provided a route for the spread of fire into the external facade of the building, and the combustible materials that made up the cladding system on the exterior of the tower was then responsible for the spread of fire which rapidly took hold of the building.
Multiple catastrophic fire spread routes were created by the cladding materials, but also the construction detailing, such as the 14 columns around the building and the architectural crown. Unchallenged by effective cavity barriers, they provided direct pathways for flame spread, both vertically and

horizontally around the building. The experts have also concluded that those composite materials used did in fact propagate the spread of fire.
This is a complex topic. However, the experts are unanimous. Ultimately, the combination of materials that encased the building was the key proponent in the spread of fire.
We encourage you to make factual findings in respect of the materials that were used and how the fire spread across the envelope of the building. The use and composition of these materials had been contemplated since the beginning of the refurbishment project in 2012, and was visible and seen by a whole range of technical and professional bodies, including those with specific responsibilities for building control and fire safety.
An important outcome of this inquiry must be to prevent this composition of materials being erected or maintained on high-rise buildings to ensure that a fire of this scale and devastation never happens again.
With the consideration and recommendations at the end of Phase 1 of the inquiry, we do hope significant steps will be taken to achieve this. We note the ongoing work of the Ministry of Housing, Communities and Local Government in pursuit of this.

2. The active and passive fire safety features.

The failure of the materials clad on the outside of Grenfell Tower to resist the spread of flame undermined the entire fire safety strategy.

Multiple active and passive fire safety measures were in place at Grenfell Tower, as is set out in table 2.3 of Dr Lane's report.

There is no provision or statutory guidance for the number or combination of active or passive safety systems that must be in place for any one single construction.

At Grenfell Tower, Dr Lane has identified 16 different passive systems and 11 different active systems that were in situ, 27 different measures in total, designed to operate independently but in concert or layers to provide protection in the event of a fire.

The majority of these systems were formed as part of the original build, and some have been modified or updated over time, including as part of the building refurbishment programme from 2012 to 2016.

Professor Torero stated that at the backbone of the fire safety strategy is the concept of no spread of fire and no external spread of fire. Dr Lane qualified the strategy by stating that once the fire broke into the rainscreen system, the remaining active and passive fire

protection measures within the tower were then required to perform during an extraordinary event.

According to Professor Torero, it is at 1.05 am that he attributes compartmentation as failing. Therefore, from the point of the start of the fire, 00.54, until 1.05 am, some 12 minutes in total, that is the period of time that represents the building operating as designed.

Dr Lane, in her evidence, was not prepared to attribute the failure of compartmentation until 1.13 am, this being the point at which flames had not only breached the window of flat 16, but had begun to impinge on level 5 above. However, Dr Lane confirmed during questioning that she saw evidence of fire being inside the cladding as early as 1.08 am, and that once it was inside the cavity, the spread of fire was inevitable.

On any analysis, this is a short period of time in which to consider the fire systems' efficacy and the effect of compliance on performance.

It is against this background, in due course, that these safety systems, including systems such as the stairs and the flat doors, the lifts, the smoke ventilation systems and the risers, must be properly assessed.

We do not rehearse our own written submissions and the submissions of many of the core participants on

these specific fire safety features here, save to agree that they are not matters that the experts have yet concluded on and, therefore, will necessarily form part of Phase 2, along with the assessment of the spread of fire and smoke within the building.

3. Evacuation.

The performance of the single stairs on the night will of course be examined in more detail at Phase 2, but it is significant that it managed to continue supporting evacuations and firefighting activities throughout the life of the fire.

Professor Purser made the calculation that it could have taken 7 minutes to simultaneously evacuate 293 persons from the tower. Notwithstanding the issues of communicating any such decision to evacuate and the particular concerns, of course, in relation to vulnerable persons, the inquiry will want to consider that the stairs at Grenfell Tower could have coped with a full-building evacuation and, to what extent that is relevant, to the LFB's decision-making and to saving life on the night.

4. The involvement of the TMO and the RBKC's LALOs on the night.

If you are minded to make findings in relation to the TMO's involvement on the night, we invite you to

consider the following.

On 15 and 16 November, the inquiry heard evidence from the two local authority liaison officers, the LALOs, Nickolas Layton and Mike Rumble, employees of RBKC. They attended the incident as representatives of the borough, and you also heard from the four TMO staff who were in attendance.

Nickolas Layton was the first to arrive at 2.47 am and he immediately determined this was a level 3 major incident. He contacted David Kerry, the emergency planning manager at RBKC, and the RBKC contingency management plan, the CMP, was activated, and the BECC, the borough emergency command centre, which manages requests for resources, was set up.

In these circumstances, the TMO emergency plan was properly not put into operation, because it had been superseded by the borough's CMP. It would have been inappropriate to have separate and different plans in operation at the same time.

As a consequence, the TMO had no formally defined role in response to the emergency. The employees of the TMO that attended on the night did so voluntarily and to offer assistance in whatever capacity they could.

The TMO did understand, as did the LALO Nick Layton, that they would have a role in assisting with dealing

with displaced residents in the wake of the incident, and to assist RBKC and the Red Cross with managing rest centres once they had been set up by the borough.

Mr Layton stated, when he first spoke to Mr Black, that he told him that they were setting up rest centres and that he needed to get the staff there to assist. That was the only topic that was discussed with Mr Black.

I'd like to deal with two specific requests: firstly, the list of residents or survivors and, secondly, that of plans.

Firstly, the list of residents or survivors.

The inquiry heard from Teresa Brown, the TMO's director of housing. She mobilised her team and staff from the TMO, who assisted in running the rest centres. 41 staff members attended in total to support the rest centres. She took the decision herself to organise a system at the rest centres to record a list of survivors and those missing in order to try to assist the LFB's rescue operation. Neither the LFB nor any other organisation requested her to do this, and staff were instructed to record in writing the names, addresses and household information of persons both safe and missing. This information was then passed back to her, Teresa Brown, who passed it directly to the LFB via

the command unit.

Clearly this information was never going to provide a complete record, as not all the survivors attended the designated rest centres that had been set up. These documents were also not put to firefighters and there has not been any exploration of the use, if any, that was made of this information by the LFB.

The first recorded request for information regarding residents is made to the LALO Mike Rumble at the fourth tactical command meeting the TCM at 7.10 am. He was asked to provide a copy of the the electoral register. Of course, this is something that the RBKC would've had and was not in the TMO's possession. TMO staff did not attend any of these meetings; they were not invited to.

Teresa Brown confirmed that she was not asked and did not forward any list of residents to the LFB and, in answer to rigorous questions by counsel to the inquiry, she stated that these lists were of limited use.

She said this:

"Because this is data on our system for who is our tenant at a moment in time, which I believe is as up-to-date as possible, but it wasn't giving us information about who was actually there on the night and who was safe and missing. I was concentrating on that information from the rest centres because that was,

in a sense, more helpful than relying on data that isn't really telling you if someone is in a building on the night." [Day 76, 16 November 2018, page 90]

The point being the list of registered tenants would've been of limited value to firefighters as it did not represent, of course, who was actually inside the building on the night.

Plans.

Mr Layton's evidence was that he had no recollection of being asked for the plans prior to his departure at 7.00 am. He stated in evidence that if the LFB had been asking for plans, they had not made those requests to him. If they had, he said, "They weren't made to me."

There is no record of any request for plans in either the first, the second or the third TCM meetings according to the Roe log [MET00005404].

At 4.53 am there is the first note in the log in relation to plans stating:

"CU staff report building plans should be in fire box in lobby." [page 4]

Suggesting there had been no previous attempts to locate them. There was not, in fact, a premises information box at Grenfell Tower, and we heard Assistant Commissioner Roe giving evidence that he would not necessarily have expected there to be a premises

information box in a high-rise building.

This was information that was recorded on the operational response database, the ORD. The ORD was, however, as we've heard over the course of the last few days, incomplete. Plans that have been previously supplied to the LFB had not been stored on the ORD.

The North Kensington fire station attended Grenfell Tower regularly to carry out familiarisation visits, and the TMO were proactive in facilitating these visits. The LFB station diary shows that nine visits were carried out in 2016, although apparently not recording a further tenth visit in July 2016 when Watch Manager Dowden attended with his watch specifically to familiarise themselves with the building after the refurbishment works were completed, and a further six visits were recorded in 2017 prior to the fire.

At 06.13 in the Roe log there is a note:

"Will attempt to locate plans." [page 5]

This is, in fact, the first direct evidence that a request for plans will be made.

Mr Black confirmed in evidence on more than one occasion that he has no recollection of being asked for plans. There is no contemporaneous note of him being asked to provide any plans.

He did, however, provide plans to RBKC in an e-mail

sent directly to the dangerous structure engineer, John Allen. The inquiry has not heard evidence from Mr Allen, but we know that he was in attendance to assess the structural integrity of the building. It appears from TMO's investigation this e-mail was forwarded to Mr Allen by Mr Black at 06.16, some two minutes after it was received by him at 06.14.

The assortment of e-mails produced by the inquiry show a number of discrepancies with time. TMO have assisted the inquiry by highlighting where e-mails are likely to record timings inaccurately, and have sought the assistance of their specialist IT facilitator, ITG, in doing this. This information has been provided to your inquiry team. Sir, you may feel that the timings of when certain e-mails were sent or forwarded between recipients at this time is not a matter you need to make specific findings on.

Whether or not detailed plans of the building were provided after a request as late as 06.13 you may think is not of great significance to the firefighting and rescue operation. By this time, we know that firefighters had already acquired the basic details of floor and flat layout inside the tower, which is what they would've required from any plans that had been provided.

However, if this is required, you will need to examine the material that we have provided. The inquiry have also notified us that Epiq, its document provider, is investigating this information and will report back on the matter in due course. You will need to consider these forensic investigations before making findings of fact on these issues.

It appears also that the inquiry has not been provided with any e-mails from the LFB that deal with correspondence to Firefighter Thomas Goodall, identified as the LFB's single point of contact for e-mails between LFB staff and council representatives on the night of the fire.

Teresa Brown has identified two other firefighters with whom she had contact on the night that could be explored if it is concluded that further details are needed to establish this timeline of communications.

For these reasons, we submit that it would not be safe to make findings in respect of any specific times that information may have been provided at this stage.

The TMO, sir, will continue to support and fully engage with the work of the inquiry as it now approaches Phase 2. How and where the smoke spread once it came back inside the building, along with the compliance of the active and passive fire measures, are matters that

you will wish to consider in greater detail at Phase 2.

However, sir, we support you making findings now at the close of Phase 1 in relation to the issues of how the fire started, where the fire started, and how it spread from its seat to the exterior of the building, together with the fire and rescue efforts and the evacuations on the night. This is in the hope that recommendations can be made that may be of importance to the safety of residents now living in high-rise accommodation around the UK.

Thank you, sir.

SIR MARTIN MOORE-BICK: Good, thank you very much.

Next I'm going to invite Mr Seaward to make a closing statement on behalf of the FBU.

Take your time, Mr Seaward. I'm not going to rise while you get organised.

Closing submissions on behalf of the Fire Brigades Union

by MR SEAWARD

MR SEAWARD: Thank you.

The FBU continues to support and encourage a full and open inquiry. The bereaved, the survivors and the relatives of the deceased, the BSRs, need to learn as much as possible about the facts surrounding the deaths of their 72 loved ones, and this inquiry should be a turning point in fire safety and in the provision of

fire and rescue services.

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 what we say is an impossible position such as faced them on the night.

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.

Meanwhile, the firefighters and control room staff who worked in appalling conditions on 14 June need protection from unwarranted criticism. Firefighters were not aware that the building envelope of Grenfell Tower was rainscreen cladding, let alone that it was combustible or that it created multiple catastrophic fire spread routes.

The FBU believes the GTI must acknowledge that any firefighting is fraught with danger, and that entering a compartment to fight a fire is hazardous for those tasked to undertake it. For their own safety and the safety of the public, firefighters need set procedures and must follow those procedures or, as has happened too often in the past, risks will end in injury and death.

Firefighters will train to procedures in order to best manage the risks and the uncertainties inherent in firefighting. They work collectively to execute set procedures in a disciplined fashion.

The FBU considers that the fire and rescue service is a force for good in our society, with a culture of decency and a highly developed sense of duty and a genuine respect and care for the victims of fire and other disasters.

As is clear from my submissions and what follows, the FBU and the LFB don't agree on everything, but we do agree on a lot. The fact that I'm focusing, perhaps, in these closing submissions on those areas in which we disagree shouldn't paint the false picture that the FBU doesn't fully respect the LFB and the work it does.

Firefighters had no experience of a fire in a high-rise block that could not be extinguished before Grenfell Tower, and no experience of requiring or moving

to an evacuation. Those were new concepts for all the firefighters who attended.

Those who attended tried to extinguish the fire and save lives. They did their duty professionally, bravely and to the best of their abilities in the face of an initially insidious and rapidly developing fire that they didn't 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 the cladding fire, with its potential for rapid fire spread, or a full or partial evacuation of a high-risk residential building, let alone, may I say, total building failure.

You know, but may I repeat, that by starting with a micro-analysis of the emergency response, the GTI risks inflating the significance of anything the emergency services might have done differently in the face of the unfolding disaster. It cannot explain how the building became a highly combustible deathtrap, nor why the deceased, BSRs and emergency services were put in the awful, we say impossible position, given the procedures and training and experience they had, of dealing with the inferno that resulted.

We ask you, please, Mr Chairman, to approach Phase 1

findings of fact in what we call proper perspective. There are several aspects to this.

We fully understand the BSRs' grief and their pain and their need to know facts, and their understandable need to blame somebody for the loss of their loved ones. But, as others have said, we ask you to assess the response taking into account that the firefighters didn't have the benefit of hindsight.

Then there's the perspective of the unknown dangers that the firefighters were encountering. I won't read out what I've put in the closing submissions about Dr Lane's opinion because she's already been referred to so extensively, but I do support the request by Stephanie Barwise QC for findings of fact in respect of non-compliance of the rainscreen cladding system, and of the refurbishments amounting to a material alteration, or, in fact, material alterations.

Can I add to that the fire safety measures inside of Grenfell Tower that the FBU would -- it's obviously a matter for you, but we would say there is no good reason not to make findings of fact also in respect of there not being a working fire lift, there not being a wet riser and there not being an adequate smoke extraction system.

Moving, if I may, to the main thrust of the FBU's

submission, and that is that we do, of course, accept that things could've been done better, but we accept that with the benefit of hindsight and knowing what should have gone on before, both by way of pre-fire preparation and, most importantly, in terms of developing procedure for evacuation, and training firefighters on that procedure, so that the incident commander would've had a workforce that was able to implement a procedure and would've known what to do. That didn't exist.

I'm now at paragraph 10 of my submissions, sir, and the first point of importance is that the responsible person, the Royal Borough of Kensington and Chelsea, had no evacuation plan for Grenfell Tower. Doubtless the Royal Borough would disagree and say it had a stay-put strategy, but a stay-put strategy is not an evacuation plan.

I've set out there a transcript of the fire action notice that was photographed and was posted by the lift on the ground and other floors. The reason I've done that is to make it legible because in the photograph it's actually quite difficult to read the text. But you see on page 6 of my submissions the words:

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

So there can be no doubt from Kensington and Chelsea's point of view and from the TMO's point of view, there was in their minds an idea that there might be a requirement for an evacuation, and if there was, the Fire Brigade would make an assessment and assist with it.

Moving on to the legal duties, I cite there articles 14 and 15 of the Fire Safety Order, and it's the FBU's contention that the responsible person -- the building owner, in this case -- was required to ensure that relevant persons -- that includes residents and their visitors -- could evacuate the premises as quickly and as safely as possible in the event of danger, and further required:

"[15.(1)](a) 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;

"(b) nominate a sufficient number of competent persons to implement those procedures ..."

Now, I do accept that, up and down the country, high-rise residential buildings did not have evacuation drills or safety drills. Residents were not treated in Manchester, Liverpool or London in the way that office workers are treated or employees are treated in

a factory.

One of the culture changes that the FBU asks you to consider encouraging is a culture change to treat residents in high-rise blocks with the same respect for their health and safety as employees in the workplace.

The Royal Borough commissioned a fire risk assessment by Carl Stokes, and he also identified the possibility of the need for an evacuation. Sir, his risk assessment said, I quote:

"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 ..."

He was clearly envisaging that it might be either the fire service or the TMO employees.

So, 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.

We invite you, sir, to conclude that neither the Royal Borough 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.

Properly understood, when read carefully, the stay-put evacuation strategy actually directs residents to leave if affected by smoke, heat or fire, and so the label is misleading, and that may have contributed to a culture of stay put rather than leave or, as Mike Mansfield said yesterday, to get out. We would certainly support the need for a culture change to understand what has become known as "stay put" better as "if in doubt, get out or leave". But that's a matter for experts and we're not making that as a concrete proposal. It's a matter for experts to consider.

We note that the Royal Borough of Kensington and Chelsea has changed the stay-put advice for some properties which have been risk assessed as not reaching the high degree of compartmentation that would be necessary to support a stay-put strategy, and we welcome that. It's clearly a move in the right direction and we hope other building owners will take the same line.

Whether the advice in the fire risk assessment that the fire service or the TMO employees would arrange for a general evacuation of the whole building, or that on arrival the Fire Brigade would make an assessment and assist with evacuation if needed, was brought to the attention of anybody of the LFB would be a matter for Phase 2. If so, it certainly hadn't filtered down to operational crews. Watch Manager Dowden was aware that the majority of high-rise residential blocks had a stay-put policy, but he 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 such a building or any training or experience in how to do so. On 14 June, implementing an evacuation plan was still unchartered territory, left to the incident commander to navigate in the worst possible circumstances.

So that's the Royal Borough.

Moving on now to the LFB.

It's clear that neither did the London Fire Brigade have a contingency evacuation plan for Grenfell Tower. The possible need for such a plan has a long track

record of being mooted. Since 1998 it was mooted in what was then Generic Risk Assessment 3.2, although very briefly, but it did nevertheless mention it, and in successive editions it's been fleshed out slightly more, and so we now have the 2014 edition [LFB00001255], and that is quite explicit in its aspiration, though not in the practical detail of how to achieve it.

So the aspiration is that contingency plans should cover:

"• an operational evacuation plan being required in the event the 'Stay Put' policy becomes untenable." [internal page 17]

And 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." [internal page 20]

The FBU's point is that neither GRA 3.2 nor any other policy gave any guidance, then or in subsequent editions, on how to evacuate such a building involved in fire, nor on the circumstances which should trigger an evacuation.

The national guidance was incorporated into LFB's

policy notes, PN633 and PN790, which we've been looking at extensively over the course of these hearings, but similarly without advising on how or in what circumstances to evacuate a high-rise involving fire, and once again leaving it to the incident commander to develop a general evacuation strategy, if appropriate.

For example, sir, looking at paragraph 7.45 of PN633 [LFB00001256]:

"7.45. 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, as we've seen, there was no evacuation plan that the occupier had devised.

Paragraph 7.46 advised:

"7.46. 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 no guidance when or in what circumstances.

Paragraph 7.47 highlights some of the difficulties an incident commander would face in such a situation, such as adverse effect on firefighting, which is obvious with crews going up and people coming down, 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 are of little or no value to the incident commander at Grenfell; there's no point in having more resources unless there's a plan they're trained in to execute, it was unsafe for the police and paramedics to enter the building, and there was only one stairwell. So the only advice that was given in the policy was of no use to the incident commander.

The LFB does now, to its credit, admit that PN633 does not provide specific guidance on evacuation. I cite paragraph 84 of their closing submissions. But it asserts that not every breach of compartmentation leads to a full evacuation. The FBU accepts that, of course. But the point is that if there is a breach of compartmentation, then the question arises: is there a real risk that it's going to be a widespread breach of compartmentation? And it's foreseeable that such a widespread breach could occur. I'll come on to that in a minute. But if that should occur, then there would be a need for an evacuation.

The LFB assert that policy note 434 on sectorisation provides a means to partial evacuation for a localised breach of compartmentation, that's paragraph 27, and assert it was practised at Shepherds Court, that is

paragraph 28.

Well, the FBU disagrees with that. Having read PN434 recently, it's wholly silent on evacuation and provides no guidance or procedure for evacuation. It is a policy note on sectorisation, that's all. So it doesn't fill the gap. We're left with no procedure for evacuation.

If it was practised at Shepherds Court, if there was a localised or a partial evacuation of the areas immediately affected by a localised breach of compartmentation, then that learning wasn't captured and introduced as part of revised operational risk database information available to an incident commander. So the LFB may be right about that, but it was of no use to the incident commander at Grenfell Tower.

So we ask you to conclude, sir, that neither GRA 3.2 nor PN633, nor PN434, if you feel obliged to deal with it, gave any practical guidance to incident commanders on how to evacuate a high-rise block involved in fire, nor on the circumstances which should trigger an evacuation.

There is as yet, so far as the FBU is aware, no fire and rescue service in the UK that has developed a contingency evacuation plan. The FBU have conducted a survey. It's not completed yet, there's a few

outstanding FRSs which haven't responded, but that's the position so far, that there isn't a single fire and rescue service that has developed a contingency plan. So the LFB is, if you like, in good company.

But we say this reflects the difficulty of the task. There's no task analysis of who does what, which we say is a necessary step to ensure resources arriving early enough to put evacuation into practice if circumstances require it.

We hope in Phase 2 the inquiry will consider why neither responsible persons 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 high-rise.

Going forward, we welcome the LFB's commitment to review PN633 with evacuation in mind, but we're disappointed that the Ministry of Housing, Communities and Local Government, MHCLG, is still silent on any national research and development for national guidance for an evacuation plan to be rolled out to local fire and rescue services and for them to apply locally in their standard operating procedures or policy notes, however they do it, and to be embedded with training.

We're 18 months after Grenfell. The need for an evacuation plan is stark and, echoing

Michael Mansfield's sentiment yesterday, the time is now.

We do suggest -- this is paragraph 20, sir -- that developing such procedures would require a 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, development of a general evacuation procedure to be practised, reviewed, improved and implemented where needed, and practical drills, each one involving hundreds of residents, visitors, wardens and others.

This would've 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 not a problem to be delegated to individual fire and rescue services, nor even the National Fire Chiefs Council. It is certainly not one to be given to an incident commander to resolve in the midst of an emergency.

Not only was it impossible for Watch Manager Dowden 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.

He told the inquiry when asked:

"Question: 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?

"Answer: 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…" [Day 11, 27 June 2018, page 32]

We ask the chairman to conclude that the incident commander was placed in an impossible position, without an evacuation procedure in place.

Moving on to training.

It's very much the FBU's approach that there must be a procedure first, then you can have the training on the procedure and then you might be able to implement it. In looking at training, that probably provides the answer. There are clear training gaps. The evidence is almost entirely consistent that there was very little or no training on evacuation or changing the stay-put strategy on widespread breach of compartmentation, on cladding fires or on multiple FSGs, and without boring everybody with the details, I've set them out from

paragraph 23.

SIR MARTIN MOORE-BICK: Yes.

MR SEAWARD: I trust that you'll take those into account.

If I can just explain it in a nutshell, we've looked at what Assistant Commissioner Roe told the inquiry about training or the lack of it, and then we've seen how that is reflected in the evidence of the firefighters who attended on the night, going through the incident command chain and then taking a selection of firefighters. It's pretty consistent.

Crew Manager Secrett seems to sum it all up, sir. In terms of the training and experience of evacuation or changing the stay-put strategy, Crew Manager Secrett said -- this is paragraph 25(e) -- 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."

Pausing there, because that lack of training was mirrored in control, so control also had no such training on how to move from a stay-put strategy to any other strategy. Assistant Operational Manager Alexandra Norman said she was never trained on how to make that assessment, as to whether a caller should evacuate or stay put, and Senior Operations Manager

Smith told the inquiry that she was not familiar from either training or experience with the idea that the alternative to stay put is simultaneous evacuation.

Once it's understood that there was no evacuation procedure and no training on it, this all becomes clear. Of course, that's why there's no training.

It won't have escaped your notice, sir, that relatively junior officers were left in charge both at the fire ground until 01.50/01.57, and in control. Assistant operations manager -- she was not a senior operations manager, she was an assistant operations manager, the same rank as some of her colleagues who were acting in a supervisory role in the control room, and she was in command there until 02.15.

The FBU says that this reflects the rapidity and the speed of the fire development, which literally overwhelmed and overtook the LFB's procedures. In this case, it's the procedure to make up to a more senior management or command structure.

I won't go into the specific details of that training and invite you to read those paragraphs.

What I should deal with, though, is what Watch Manager Peter Johnson said -- this is paragraph 34:

"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 ... There being none, he devised a training package for handling FSG calls ... He said '…The training package I designed demonstrated how difficult it would be to deal with just seven FSGs…' ... 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 ... He tried to remedy matters ..."

You'll remember, sir, that he took it to the policy review committee and he took it to Babcocks:

"... 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 ..."

Again, we submit that this is reflective of the lack of an evacuation procedure, because the solution is probably not to amend it PN790, the procedure -- save to say that if you're getting FSG calls from different parts of the same building, then you should be considering a full or partial evacuation. But without that option, people are rather stuck as to what to do.

It's notable that Assistant Operations Manager Norman gave mirror evidence of a lack of such training in the control room for dealing with FSG calls, and

Mr Walsh has already outlined the very limited experience of FSG calls, which I won't repeat.

So there could be no magic solution to the problems of trying to handle multiple FSGs without an evacuation plan.

Going forward, such training in future would have to be founded on procedures and cover -- we've set out a few ideas there, but we don't pretend that that is a full picture. This is, as I said earlier, a matter for experts, probably at national level, to develop a procedure and to work out the training for it.

So conclusions on the lack of either an evacuation plan or a contingency evacuation plan.

Before Grenfell, no fire and rescue service across the country had developed such a one. 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, so just before the stay-put advice was changed, three of the four 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.

It's notable, we say, that within about 20 minutes of Senior Operations Manager Smith's arrival in control, she began to change the stay-put advice from about 02.35. She got to control at about 02.15, and she started to change it from 02.35. Until then, the control room staff could only apply their experience and training to make sure the FSG data was passed to the fire ground 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.

Some undoubtedly gave the wrong advice, and we've listened to some of the calls and we've read the transcripts and it's undeniable that it doesn't look good in black and white. But the FBU asks you, sir, to find that these mistakes that were made were well-intentioned, they were made with the intention of comforting and reassuring and helping and in the belief that the firefighters would get to rescue people that need to be rescued, and that the firefighters would extinguish the fire. That was the experience of people

in control. That's what they expected to happen.
Likewise, the same point applies on the fire ground. When Assistant Commissioner Roe arrived on the incident ground, he independently and more or less immediately 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, then to 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.
Without a contingency evacuation procedure and the training to embed it, the firefighters and control room staff were placed in an impossible position. As Mr Dowden told the inquiry when asked by Mr Millett about the time at about 01.24, when the fire was rapidly developing up the east elevation and he just made pumps 10, he said:
"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."
[Day 10, 26 June 2018, page 161]
When asked about the time a little bit later at 01.29, when he made pumps 20 and fire rescue units two, Watch Manager 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 ..."
[Day 11, 27 June 2018, page 37]
Sir, we say that that is the consequence of not having an evacuation plan.
Sir, if I can just turn to a few issues.
First of all, foreseeability. The question

arises: foreseeability by whom and of what?
I think what was foreseeable by the London Fire Brigade was probably different from what was foreseeable by the firefighters on the fire ground. There's a clear difference between the systemic institutional information that was available to them and the information that was available to the incident commander and other firefighters on the ground.
Now, what was foreseeable?
The FBU would agree that total building failure of the kind that happened at Grenfell was probably unforeseeable. It was so beyond people's comprehension. That so many fire safety measures could fail and that the fire could spread so rapidly was probably unforeseeable.
But we say that's not what matters. What matters in this context is: was it foreseeable that there could be a widespread breach of compartmentation such that the stay-put strategy become unsustainable so that an evacuation became necessary?
We say that that was foreseeable. Clearly foreseeable to the LFB, albeit not foreseeable to those who were not privy to the "Tall building facades" presentation and the information that was available. For example, I think we were told that there was a local

newspaper picked up on the Shepherds Court fire. But otherwise, there was no widespread dissemination of the learning of the Shepherds Court fire.
So dealing just with the LFB as an institution, there was clearly knowledge that fire can break out, it will break out, kitchen fires are relatively common, that fire can spread over the exterior of buildings -- so much is written about it, it's quite obviously foreseeable, and it's happened, and we have the examples of cladding fires spreading rapidly, and breach of compartmentation. And we know that breach of compartmentation can be localised, as many firefighters spoke of, but it can also be unpredictable, and fire being unpredictable is one of the things that is known about fire.
So putting all that together, we say it was foreseeable that the need for an evacuation plan could arise and that it should've been in place.
So turning, if I may, to pick out one or two issues.
I'm not going to go through the whole of the closing submissions, they're there for you to read, but I feel like it's important to deal with some allegations in particular.
My learned friend Mr Browne has written lengthy submissions in respect of the evidence of

Mr Norman Harrison who, as you recall, went to CU8 and stood on the steps and declared his belief that the stay-put policy should change. That you may find is of significance, you may find it's not of any significance. It very much depends on the timing of that. Mr Browne's analysis is very careful and we don't dispute his analysis of the timing. If, as he concludes, that episode on the steps of CU8, took place after 3 o'clock in the morning, then you may conclude it's not something that you need to make a finding of fact about because, by that stage, the stay-put advice had changed in both control and on the fire ground. Otherwise it's a conflict of evidence and we will leave that to you.

Mr Herrera has been singled out for criticism. We ask that there be no findings of fact in respect of Mr Herrera, for the reason that the evidence at the moment is incomplete in that respect. But also for this reason: although it would appear that there is a conflict of evidence as to what was said -- and let me be quite clear, the FBU does not suggest that Omar Alhajali is lying, that this not any part of the FBU's position. We accept entirely that he would not have knowingly said anything about his brother that would've led to him being left behind. But what we do say is that these were dynamic, changing conditions,

that visibility was fluctuating and at times nil, and certainly nil in the lobby, and that there was ample scope for misunderstanding and mistakes to be made. Mr Herrera was speaking through a mask, and that is another good reason for a misunderstanding and a mistake.

So we ask that there be no findings in that regard at this stage, but that if you do disagree and you feel it is necessary to make a finding, then to take into account the really quite dramatic conditions. You've heard the residents in that flat speak of their growing fear, the increasing amount of smoke in the flat, leading to the possibility of jumping out of the window. That was a highly charged atmosphere into which a firefighter walked.

There's also the issue of the door and the position of the door in the bedroom, where the bed was, where several of the four who were left behind were situated. It may be that the way that door opened into the room obscured Mr Herrera's view of who was in that room.

So there's an awful lot to take into account in reaching any conclusions about that episode, and the whole approach of the FBU in this situation is to say: look, the residents were put in a position they should never have been in, the firefighters were put in

a position they should never have been in, and had there been an evacuation procedure that could've been executed, this situation wouldn't have arisen.

Of course, we go back further than that and say that if the building hadn't been handed over with a stay-put strategy, it wouldn't have arisen either.

So going forward -- I see you looking at the clock, and I've only got a few --

SIR MARTIN MOORE-BICK: I was looking at you, actually.

MR SEAWARD: I do apologise, that's my eyesight!

I've only got a few other things to deal with. I want to touch on the predetermined attendance, the PDA. You know what it was, obviously, it was four pumps, and they arrived as set out in paragraph 48. Notably, it did not include an aerial appliance, any fire escape hoods, any EDBA, an officer in or higher than the rank of station manager, nor a handheld Airwave radio. Additionally, as can be seen in our little table, there were only ten firefighters available initially to implement PN633 and mount an attack on the fire in flat 16. The front door of that was forced open at 01.07.

So the firefighters arrived, found a well-developed fire and attacked it in the way they were trained to do, and they extinguished it. You heard Watch Manager

O'Keeffe say that he was quite impressed; it was a good job, extinguishing that fire.

The five who ascended the tower to set up a bridgehead and fight the fire were unaware of the prospect of fire spread on the exterior. They went into the building unaware of what was going to happen on the outside.

The LFB have since increased the PDA as an interim measure, as the FBU requested, I should say.

On the night, all 20 firefighters were very busy implementing PN633, and because they were so busy in the early stages, laying out hoses and all the other jobs they've got to do, there was no one to staff the radio on the IC pump, nobody to look out for breach of compartmentation on each face of the building, internally above and below the fire flat, and no one to conduct a 360-degree recce, or to check the internal fire safety measures.

So going forwards in future, the PDA must, we say, be resourced sufficiently to carry out the tasks required to implement both PN633 and an evacuation procedure, if appropriate, on arrival at the scene. More resources than are needed can arrive early. If they're not needed, they can go.

The Fire Brigades Union believes it's legitimate to

ask what difference an earlier arrival of a turntable ladder could've made. Assuming similar traffic conditions, had the turntable ladder been mobilised at the time of the PDA, at 00.55, it could've been on the scene at 01.13. That was the same time that firefighters actually, in the events that transpired, asked for a higher platform, and then it was amended to an aerial at 01.14. But it's likely the turntable ladder would've been more effective than the firefighters at ground level directing a hose upward and the deployment of a ground monitor.

The FBU believes this question is valid in light of the LFB's past practice and its subsequent decision after Grenfell Tower. 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 action since the Grenfell Tower fire indicates that since 22 June 2017, it's changed its interim PDA for high-rise buildings to at least five fire engines and one aerial appliance, and this indicates that the previous PDA was insufficient.

Even if you, sir, conclude that an aerial would not have enabled firefighters to extinguish the external cladding fire, which is entirely possible because, of

course, the rainscreen cladding would've made it difficult for an aerial, its failure to do so, ie its failure to be effective on an external fire, may have helped the incident commander's perception and understanding of the futility of firefighting. As it was, he was awaiting the arrival of an aerial which he was hoping was going to be able to make a difference to the fire. It didn't arrive until 01.32, or I think it was 01.32, and thereafter it had no effect. But the incident commander had to wait for that to arrive before he could see it would have no effect.

Moving on to the next issue is the operational risk database and 7(2)(d)s.

En route, Watch Manager Dowden was aware that this was a call to a fire with a dry riser in a high-rise, and from the mobile data terminal on his fire engine, he printed off the tactical plan for Grenfell Tower, which was dated, as we all know, 30 October 2009, well out of date, from the LFB's operational risk database. This contained no warning that there was an external rainscreen cladding system or that there was a combustible building envelope, there was no information about an evacuation plan and, of course, it had no plans. It wrongly described 20 floors when, instead, there were actually 24. It advised various

points there, including that there was a stay-put policy.

There was no premises information box at Grenfell Tower. No concierge or representative of the responsible person was there to answer questions until much later, when the LALO arrived, and Mr Layton didn't arrive until around 02.30.

The attending crews were thus given out of date and inaccurate information, and the FBU considers that sufficient time and resources should be allowed to enable fire crews to conduct 7(2)(d) familiarisation visits in accordance with PN633, considering all the items listed in appendix 1 in a holistic fashion, and to write them up properly afterwards so as to maintain the currency and usefulness of the operational risk database.

It's important that you know, sir, that these 7(2)(d) inspections are done by crews who are on the run. They're available to be called to answer the call to a fire. And that's what does happen; they do get interrupted in the middle of section 7(2)(d)s, they are disturbed in that task. So the FBU contends that this is serious business, it's important stuff, and there should be a proper allocation of time to enable the job to be done properly.

This is partly a resources issue. In the vicinity of Grenfell Tower, there were several fire stations closed, Westminster, Knightsbridge and Belsize in 2014. Several other stations lost a pump. So Kensington lost a pump in 2005, went from a two-pump station to a one-pump station, and Chelsea lost a pump in 2013, likewise from a two-pump to a one-pump. So it's obvious that there are now fewer firefighters spread over a larger station ground to cover the fire safety work that is allocated to operational crews. So fewer firefighters to do more work.

We say it's difficult enough to do a section 7(2)(d) properly, or a home fire safety visit, and really there should be proper allocation of resources so that they can be done properly.

Moving on to the issue of the covering jet.

Professor Bisby had thought about this issue and thought that the covering jet probably wasn't applied until sometime soon before it's seen on video at 01.15. The FBU argues that there's no good reason not to accept the evidence of the firefighters who said that it was applied earlier. Professor Bisby didn't actually mention the evidence of the firefighters and appears to have arrived at his conclusion by reference to looking at the video evidence.

I just want, therefore, to remind you, sir, of the evidence on that. It was Watch Manager Dowden who explained that the puddle seen on the photograph could have come from the covering jet being either deployed or being tested, so he's very fair about that, and we submit, on the balance of probabilities, the firefighter evidence should be accepted.

Firefighter Abell recalled assisting his colleagues to lay and deploy the covering jet above the kitchen window of flat 16. Well, when we see the video Abell isn't there, it's Murphy and Cornelius. So if Abell did assist in deploying the covering jet above the kitchen window of flat 16, it was before Murphy and Cornelius.

Firefighter Archer said in his police statement:

"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." [MET00008001, page 3]

He was soon thereafter told to rig in BA and deployed in the tower. He tallied out at 01.21. This fits with him having deployed the covering jet at about 01.11, as estimated by the LFB in their operational response report.

That's also consistent with Watch Manager Dowden's

instruction to apply the covering jet above or below the window after his discussion with Crew Manager Secrett. You'll remember the good reason why the covering jet wouldn't be applied in through the window.

The effect of a covering jet on the exterior fire is a different matter all together. Water from below may have been able to enter the cavity. Professor Bisby did explain that interesting feature of the rainscreen cladding system, where water going up from underneath might get in whereas water coming from above wouldn't. But we submit that, although it's possible that water from below may have slowed the fire spread, it wouldn't have made a substantial difference. We submit, at most, it can only have had a limited and temporary effect on the exterior fire.

That is consistent with Firefighter Brown's evidence that when he applied water directly onto the exterior fire from the window of flat 16, it had no effect, and he was obviously very close to the fire, it had no effect, and with the evidence of Firefighters Murphy and Cornelius that their application of a covering jet on the exterior appeared to have no effect. We know what happened with the aerial appliance subsequently.

Can I turn to insidious fire spread.

Obviously you're going to be guided by the experts

on how and when the fire spread occurred and I don't seek to make any submissions in that regard. What I do, however, want to say is that the spread of fire was insidious, in the sense that it's understandable how somebody standing outside the building could look at it and not realise just how fast that fire was spreading.

So taking it in stages -- this is paragraph 65 -- spread out of the kitchen into the cladding. From as early as 01.05, the fire had progressed outside the kitchen of flat 16 into the external facade. However, it did so insidiously, in a manner that was unexpected and with no visible flaming outside. It was creeping into the facade, as Torero said, and 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, and I give the reference for that.

So it's out, and once it becomes visible that it's out and into the cladding, then the next stage: going up the east face initially.

The insidious spread of fire then continues up the east face. Although by this point there was visible flaming on the exterior, as Dr Lane points out, Watch Manager 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 the 11th floor, it was still a localised fire that could be potentially mitigated.

We now know that the catastrophic fire was inevitable as soon as the external facade became involved, given the materials and construction. However, Watch Manager Dowden was not in a position to realise this until after the fire had developed much further. We say it was reasonable for him to go on thinking he could extinguish this fire, he could fight it, and that was clearly his plan.

Now taking the next stage: to the top of the east face.

Although slower than in some other external facade fires, the fire quickly spread up to the top of the east face. It travelled at roughly 4 metres per minute, says Professor Torero, and from floors 19 to 23 within just 15 seconds, says Professor Bisby at his table 13.

So the FBU invites you, sir, to consider, standing at the foot of tower, how much can you actually see reliably of that fire spread? You can see fire above, but can you reliably see which floors it's going up to?

Then, when it does reach the top, going across the crown. To Watch Manager Dowden, I ask you to consider, was there anything to indicate that this fire was going

to envelop the entire tower? Previous external facade fires have self-extinguished once they reach the top of the building. I refer to Professor Torero's supplementary report at page 59, and his evidence on Day 77.

Lateral fire spread is usually limited due to the relative paucity of fuel, and this is again shown in previous external fires. Again, I give the reference. But Grenfell Tower had a bespoke architectural crown. The crown's construction, design and materials provided a pathway for the fire laterally to spread around the tower, and all the experts are agreed on that. This lateral mechanism of fire spread was, according to Professor Bisby, a unique situation, which was the consequence of the architectural features of Grenfell Tower.

We submit that neither Watch Manager Dowden nor any of his colleagues could have anticipated the crown would burn like a fuse, which I think is the expression that was used. We contend the time when it was clear that the cladding fire could not be mitigated by firefighting was after it had failed to stop at the roof, ie sometime between about 01.30 and 01.42. I appreciate that others have said it was much earlier, and it's a matter for you, sir.

Now, what was the consequence of this insidious fire spread?

Watch Manager 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, the fire had moved on.

So, for example -- this is 66(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. That, you might think, is very responsible and good firefighting; he sees the fire is getting near to the window in the kitchen and he asks for a covering jet.

By the time it could be used, 01.11, or 01.15, depending on what you decide, the fire had already taken hold in the rainscreen cladding system and the covering jet was of little or no use.

So that's an example of Watch Manager Dowden always being a few steps behind a rapidly developing fire.

Sir, where it says (g) and (h) in paragraph 66, I'm afraid that's bad numbering, it should be (b) and (c).

Likewise, he was unable to attempt to fight the external fire from the roof until the first fire rescue unit arrived at 01.35, by which time it was too late; the external fire had already reached the roof at 01.27.

So he clearly conceived a plan, it might have been a good one, it might not have been, but it was extraordinary conditions he was observing and he conceived a plan to put water down the exterior of the building from the roof, but by the time the resources arrived to enable him to implement that plan, circumstances had changed and the roof was already consumed with fire.

Similarly, what should be (c) but looks like (h), an aerial did not arrive until 01.32 and, despite preparing the ground, water wasn't applied to the east face until 01.47. 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. Internally, about 26 flats were affected by fire. So he was always one step behind.

Finally, in terms of picking out incidents on the night, I want to talk about the early incident command decisions.

At paragraph 58, we set out the requests for assistance, and it's clear that Watch Manager Dowden made, sometimes on his own initiative, sometimes prompted by others, requests for additional resources. He makes pumps six at 01.12 and asks for a higher platform, and then he changes that to an aerial at

01.13. He knows it's calling for more senior officers to attend and more resources. With the developing, deteriorating situation, he then make pumps up as is set out there. Those, we contend, are reasonable responses to the developing fire in front of him.

But clearly there's a limit to what he can do because these resources then take a while to arrive. So he doesn't get any additional resources until 01.25 and 01.26, when the two extra pumps from the make pumps six arrive. That's the first help he gets, is two other pumps arrive. When they arrive, they're immediately deployed inside the tower to help fight fire in the fires that have broken out.

We contend that that was a reasonable and, in fact, an irresistible decision. He couldn't reasonably have not deployed more crews inside, particularly as, at that stage, Watch Manager O'Keeffe was telling him by radio that he had run out of BA crews and that he needed more, and asked him to make pumps eight.

At 01.33, Watch Manager Dowden and Station Manager Loft decided not to hand over command but to put Mr Loft in charge of FSGs. That was a mutual decision arrived at after a discussion. Two important things arise from that.

Firstly, Station Manager Loft, a more senior

officer, approved Watch Manager Dowden's firefighting plan. So he also accepted the logic that Mr Dowden had, that he should continue to try and fight the fire.

Secondly, it shows the seriousness and importance that firefighters attach to FSG information. At that stage, only two FSG calls had been communicated by the radio operator, Sharon Darby, to the incident ground, and those are set out at paragraph 64. Those two calls, it's clear that both Loft and Dowden were aware of them in the course of their discussion, because they refer to a couple of FSG calls.

But this decision to put Mr Loft in charge of FSG calls demonstrates the importance which FSG information had to the firefighters. They realised: this is lives at stake, people are trapped, they need to be rescued, this is really important stuff, and they decide that Mr Loft will take over responsibility for that.

Thereafter -- only two when they have their discussion -- there's a rapid increase in the number of FSG calls, and we know that they were overwhelmed in control and overwhelmed on the fire ground.

If I can conclude by looking at the list of issues for Phase 1.

The first issue is the existing fire safety and prevention measures at Grenfell Tower, and you've heard

enough about that and you know what the FBU wants.

Where and how the fire started.

Now, the FBU has set this out at paragraphs 43 to 45, and we accept what Mr Rajiv Menon QC said on behalf of Mr Kebede in that regard, and we agree with him that it's very hard to identify anything that Mr Kebede could've done better. We support his request for the findings of fact that he seeks and which he sets out in his closing submissions.

We don't agree with everything that he said. We don't agree that 01.26 is the time when the stay-put strategy should have been abandoned and a move to evacuation made, but I think you have heard me enough on that. We say it's later than that.

We don't quite agree with him on unforeseeability, but I don't think the difference between us is worth mentioning. The essence is that the need for an evacuation plan was foreseeable.

How the fire and smoke spread from its original seat to other parts of the building, we leave that to the experts.

The chain of events before the decision was made that there was no further savable life in the building. Again, I think that decision was made at 7.55, wasn't it?

SIR MARTIN MOORE-BICK: Well, it will be in the evidence, don't worry.

MR SEAWARD: And the evidence hasn't really gone up -- it's quite clear that there was very little savable life, but that they did carry on trying to save life right until the end.

As to the evacuation of residents, I've given you my submissions.

So unless I can assist you any further, that's it.

Thank you.

SIR MARTIN MOORE-BICK: Thank you very much, Mr Seaward.

Well, at that point, I think we'll have a break before I invite Mr Browne to make a statement on behalf of the Fire Officers Association.

So I'm going to rise now and we'll resume at 11.45, please. Thank you.

(11.35 am)

(A short break)

(11.45 am)

Closing submissions on behalf of the Fire Officers Association and Mr Richard Welch by MR BROWNE

SIR MARTIN MOORE-BICK: Now, Mr Browne, you're going to make a statement for the Fire Officers Association.

MS BROWNE: I am, sir, thank you.

Sir, at the outset, the Fire Officers Association

and Richard Welch would once again wish to express their sincere sympathy to the bereaved, survivors and residents for their loss.

If we may respectfully say so, what has been a notable feature of the hearings in this phase is the considerable dignity shown by the BSRs who have attended on a daily basis, often in the face of harrowing evidence being heard.

In our closing submissions, we cover a wide range of areas, including the position of Richard Welch as incident commander, as fire sector commander, and the conflict of evidence between Mr Walsh and Watch Manager Harrison. With your permission, I don't propose to repeat that.

I wish to focus on what we regard as the particular salient features that the incident commanders and firefighters on the ground had to deal with on the night, and although our closing submissions address that under a number of separate subheadings, for example the condition of Grenfell Tower immediately before the fire, the inadequacy of the active and passive firefighting measures in the tower, the spread of fire and smoke over time, and the stay-put strategy, the reality is all of these points have to be considered together, and that is because there is a single common denominator that unites

them all, and that common denominator is the wholesale failure of Grenfell Tower to meet the purposes required of it. In that regard, we are in full agreement with the BSRs, the LFB and the FBU. I do not propose to repeat the detail of any of the submissions made by those core participants.

Can I say, please, sir, initially, that we would respectfully invite you to have regard to a number of matters when considering the evidence of all LFB personnel, both those making command decisions and those executing those decisions. Fairness requires that their actions should not be assessed with the very considerable benefit that hindsight allows.

Firefighters who entered the tower did so with the sole aim of saving the lives of those who were trapped in it. Many did so at risk to their own lives and, in doing so, they acted with bravery. Many attempted search and rescue on floors far above the fire floor without firefighting media.

Those in LFB command positions inside and outside the tower were, we would ask you to find, motivated solely by taking decisions that would, in their honestly held view, facilitate the rescue of those trapped in the tower. That they failed to save the lives of all those who were trapped was and remains a great source of

sadness and regret to them.

In considering the actions of all of the LFB personnel, it must at all times be borne in mind that this tragedy was wholly unprecedented in its scale and complexity and the enormous challenges it posed. We know that you will bear in mind that none of the firefighters had any knowledge that Grenfell Tower was clad with such highly combustible rainscreen cladding.

We agree with Mr Menon QC about the caution that should be exercised at this stage in making value judgments about the actions of any LFB personnel in the absence of detailed evidence of the kind to which he referred. That is particularly so when one has regard to the small window of opportunity about which Dr Lane has opined, and we will return to that in due course.

Can I then, please, just select some features of Dr Lane's evidence as relevant to the tower that are particularly pertinent in highlighting the challenges that were faced by LFB personnel in fighting the fire and in search and rescue.

Dr Lane's overall conclusion was that there were multiple catastrophic fire routes created by the construction form and construction detailing that was used. Once the fire was within the cladding, there was nothing to impede the spread of fire and smoke around

the building, which, and I quote, "created the conditions for a catastrophic fire event to occur".

The single stair and the lobbies and the fire safety provisions were not ever designed to create a safe escape route or a safe working environment in a whole-building fire. The design approach of high-rise residential buildings is based upon inhibiting that from occurring.

As Dr Lane herself pointed out, the design of firefighting stairs in high-rise residential buildings requires the provision of a smoke control system, functioning fire resistant enclosures around the lobby and the stairs, including functioning fire doors to flats and the stairs, any risers protected where they pass through the lobby, and the system was intended to prevent smoke entering the stairs when two stair fire doors are open, on the fire floor and the floor below.

The net effect of this and what we set out in paragraph 7 of our submissions is that those LFB personnel who were taking command decisions on the night had no prior opportunity to consider their firefighting and rescue tactics, as well as any evacuation guidance to the residents, having regard to how the fire was likely to behave and spread once it was on the exterior of the building.

Turning, then, to some salient features of the active and passive firefighting measures and their inadequacy.

Of critical importance to the ability to effectively firefight and carry out search and rescue are the following.

The low bridgehead location and large fire sector reduced the time available to conduct rescue operations at higher levels whilst wearing breathing apparatus.

Above the bridgehead, the heat and smoke within the lobbies either prevented or reduced access to the fire main, and prevented or reduced the ability to find and locate occupants.

The impossible scale and nature of the task facing both residents and firefighters that night is encapsulated by Dr Lane when she said this:

"2.19.8. There were substantial signals of danger to residents and to firefighters, this included large quantities of thick black smoke which impacted sight and breathing immediately outside flat entrance doors, intense heat outside flat entrance doors, heat and smoke in the stairs themselves, rapidly advancing fire and smoke entering flats from the external wall, and ultimately horrific and rapidly increasing number of fires for the residents to attempt to escape away from

within their own flats.
"2.19.9. It is my opinion that the conditions created difficult, and at times life-threatening conditions, for the LFB. The conditions greatly restricted their ability to implement their standard processes and procedures, regarding firefighting once the fire spread beyond flat 16." [BLAS0000002, page 47]
Can I mention stay put briefly, please.
It is beyond question that high-rise residential buildings were handed over for occupation on the basis of a stay put defend in place strategy and without active or passive protection measures to support a change in that strategy. As a result, this is how the Fire Brigade encounter buildings in the event of fire. So the understandable assertion that stay put should have been changed sooner than it was must be considered against that fundamental principle of building design.
Also, sir, in considering the ability to deliver any plan which might have been formulated to evacuate residents within the window of opportunity identified by Dr Lane, the following are of, in our respectful submission, critical importance.
By 01.57, there were already many reports of persons trapped on floors 10, 12, 14, 16, through to 18, 20, 22 and 23, with smoke or flames reported as coming into

their flats.
As early as 01.20, there was heavy smoke-logging on the 5th floor.
By 01.21, the fire had reached the 11th floor.
At 01.23, there was heavy smoke-logging on the 8th floor lift lobby, with the lift lobbies getting smokier as Firefighter O'Beirne ascended.
01.28, the 15th floor lift car was filled with black smoke and, at the same time, there was thick black smoke down to the ground on the 5th floor.
We highlight other features at paragraphs 37 through to 40 of our written submissions and I won't repeat those.
Can I then turn, please, to two other matters, and they are the viability of self-evacuation, which we deal with at paragraph 98 on page 32, and, finally, whether the evacuation of all residents was a realistic, practical possibility within the window of opportunity identified by Dr Lane.
Dealing first of all with the viability of self-evacuation.
Can I just address, please, some matters that Professor Purser has dealt with.
The point has been made that he had not, at the time he prepared his report or gave oral evidence, considered

the firefighters' evidence, and clearly that will be critical to any analysis by him. But these points are, in our respectful submission, also important.
Some of the residents in the tower were simply not able to self-evacuate by using the stairs because of, for example, disability. Those who would've been physically able to use the stairs would, understandably, be likely terrified about the conditions they faced in the lobby and on the stairs in deciding whether to use the stairs as an escape route.
Therefore, with all respect to Professor Purser, the likelihood of there being an orderly procession of residents out of the building in the conditions they faced is one that must be viewed with a degree of caution.
The stair capacity is simply that: it is a capacity check. It pays no regard to the realities of evacuation.
The following features are of course relevant: poor visibility in the lobbies and stairs, reducing the speed at which people could move; the effect of extreme temperatures in excess of 150 degrees C within all lobbies, level 5 to levels 7 to 23; and the effect of toxic fumes and sensory irritants and gases in the smoke-filled lobbies and stairs. In addition, there was

no viable means of communicating the need to self-evacuate. It was Dr Lane's opinion that intercom and use of loud hailers was not viable.
Insofar as you need at this phase, sir, to consider the issue of the viability of self-evacuation, those are, in our submission, important considerations.
Similarly, insofar as you need to respectfully grapple with the issue of what would have been different had stay put been changed at about the time it is said it should, at or about 01.26, it's important to bear in mind the window of opportunity identified by Dr Lane, which is from 00.58 up to 01.40 or possibly 02.00. In order to evacuate residents, it would be necessary to have firefighting stairs and lifts which provided a safe air environment to reach the bridgehead, located two floors below the fire floor, the lobbies below the fire floor were required to provide a safe air environment to act as the bridgehead, and the stairs above the bridgehead, accessed by crew in BA, would be required to provide tenability for crews to work, including finding and connecting hoses to the mains and the carrying down of any residents rescued.
We have set out at paragraphs 101 through to 108 considerations which we say are relevant in that regard. I'll just highlight a number of those, if I may.

20 floors would need evacuating. A conservative assumption of a minimum of one BA crew per floor is four firefighters. Therefore, 20 floors requires 80 BA wearers.

Now, not all appliances would carry four firefighters who could actually access the interior to carry out the task. 80 firefighters would require eight entry control boards and a number of supervisory staff. According to telemetry data, just before 2.00 am, there were 14 BA crews that had been committed. That's 34 firefighters.

Many of the firefighters going up the tower at the early stage had to assist residents coming out. Other firefighters were outside the building dealing with other matters, for example hose management, residents who were evacuating, aerial platforms, extinguishing fires caused by falling debris and lookout for crews enter during and leaving the building.

You have heard about the significant communication difficulties in the tower. Now, the highest number of firefighters in the tower at any one time was 28 BA wearers. We ask the question: even with better radios, with 80 firefighters in the tower, many of them seeking to use channels to communicate, how would that be feasible if it was not feasible with 28?

We also highlight these additional features if we may, please.

Four firefighters per floor may not have been adequate in any event. That is because there may have been conditions on one or more floors that required a greater number of firefighters. Some firefighters would be needed for firefighting and evacuation and rescue.

There is the issue of how long it would take to commit that many firefighters into the building in terms of briefing each crew, logging on to ECBs, communication checks.

There is the further issue of where the bridgehead would be located. It would have to be located on the ground floor; that would be the only area sufficiently large to accommodate that number of crew coming in and leaving and supervisory staff.

We remind you of that which was just addressed by Mr Seaward: at 01.26, there were only six pumps at the tower. That would give a further 14 minutes to 01.40, if that is taken as the endpoint of the window, to secure the requisite number of appliances, firefighters and equipment, and to deploy them into the tower, with all that entailed, to search and rescue on designated floors.

With the greatest of respect, we say that to suggest that that is feasible is a judgement and an assessment with the wisdom of hindsight and, in our most respectful submissions, is not realistic.

Dr Lane herself recognised in oral evidence that a total evacuation would require firefighters to have knocked on all doors. In addition to the number of firefighters that that would have required, it presupposes the flats and lobbies are not compromised by smoke, so the firefighters can access those floors, residents are awoken by the knocks on their doors and open their front doors, and residents do not have mobility issues and are physically able to exit the building via the staircase. If that were not so, additional firefighters would be required.

Then, please, just these final three matters, if I may, sir.

After 01.30, when the conditions in the tower deteriorated, given the resources required at each floor and the very poor conditions on those floors, in our respectful submission, at this stage it is possible to say that, tragically, it was simply never practicable to have been able to achieve a full evacuation of all residents from the tower within the window of opportunity for doing so.

Secondly, that some residents were able to self-evacuate later in the night can be attributed to the rapidly changing conditions in the tower over time, affording certain residents on certain floors a better opportunity to escape.

Finally, this, sir: coming back to what I have described as the common denominator, the condition of the tower, it was put this way by Group Manager Welch at the conclusion of his evidence: "We did not let you down, the building let us all down".

Thank you, sir.

SIR MARTIN MOORE-BICK: Thank you very much, Mr Browne.

At this point I'm going to invite Mr Hockman to make a statement on behalf of Arconic.

Closing submissions on behalf of Arconic by MR HOCKMAN

MR HOCKMAN: Thank you, sir.

As you know, we have submitted a lengthy and detailed written closing to which we would invite the inquiry to pay close attention.

In this oral statement, I propose to summarise our written closing and, in the course of doing so, to respond, where necessary, to points made by other core participants, whether in writing or orally.

In my oral opening, delivered to you several months ago, I adopted the course of identifying ten key

points -- points, not commandments -- for your consideration. I hope it will be helpful if I adopt the same approach today.

Before coming to the ten points, I would like to reiterate once again our sympathy for all those affected by the fire at Grenfell Tower, including, of course, the bereaved, the survivors and the residents, many of whom have now given evidence to you.

I would include in this expression of sympathy an expression of respect for every individual firefighter and other first responder who was deployed to the scene, as well as those in the control room. Again, you've heard evidence from many of these individuals.

A further preliminary comment that I would make is this: we say in our written closing that it's already apparent that this inquiry is, in many respects, making history. In part, this is no doubt because of the scale of the tragedy which is being investigated, the number of persons affected and involved and the complexity of some of the issues.

In addition, it's because of the conscious effort which has been made to enable the survivors, residents and other local people to play their full part, an effort which we unreservedly support and which has

already achieved what I think was described by one of the advocates for the BSRs as representing the gold standard.

Turning to the substantive points which I wish to make today, these fall under two main headings. Some of my points relate to provisional evidential findings which we suggest it may be open to the inquiry to make even at this relatively early stage and in the context of your Phase 1 report. Some of the points, however, to which I will come in the later part of this statement, are points relating to the proper scope and approach applicable to your work at this stage.

I make no apology -- and this is my final preliminary observation -- for selecting points which concern our clients. This is not because we fail to appreciate the breadth of the matters already covered by the evidence which you've heard, but because it is only by seeing and taking fairly into account that evidence from the viewpoint of each and every one of the core participants that you can hope to arrive at a true and just analysis of the material before you, which I know you will be determined to do. If we were to fail to present the specific perspective of AAP-SAS, or Arconic as it's known in this room, then not only would we be letting our own clients down, but we would be letting

you down too, or at least making your task a great deal harder.

So I come to the first of my ten points, and this is to underline some of the information which you've received relating to the use of ACM PE cladding panels, not just at Grenfell Tower but more generally.

You now know that this kind of ACM panel has been in widespread use for many years in the United Kingdom and abroad, even though we ourselves supply only a limited proportion of it. The recent statement by the ministry noted that, in the United Kingdom alone, advice has been given to the owners of 457 high-rise buildings relating to the use of ACM cladding panels.

So it is clear that the use of such panels must have received regulatory approval up and down the country on many, many occasions. Only in recent days has the UK government introduced regulations to control not the manufacture or sale of such panels, but their use above a certain height, I think to come into force on 21 December of this year.

These obviously will be relevant matters when you proceed in Phase 2 to analyse where responsibility lies for the tragedy which occurred at Grenfell Tower.

However, these vital background matters also have a bearing on the approach you should adopt to Phase 1.

In particular, we respectfully submit that any comments about, say, materials which you may make in your Phase 1 report, let alone specific findings, if any, should be limited to the circumstances at Grenfell Tower, some of which I shall now go on to emphasise.

So that was the first of my ten points.

The second point that I would like to make is that you already know -- again, I appreciate this will be a matter for fuller exploration in Phase 2 -- that, as Professor Torero has told us -- I think it was line 2275 in his report -- there have been many other cases of fires in residential buildings, including high-rise buildings, involving ACM PE where there has been no loss of life. It was only the use of ACM PE in combination with the other materials used in the refurbishment at Grenfell, together with the configuration of those materials and the absence of other fire safety features in the building, that created the conditions for the catastrophe.

Let me remind you, please, of what Professor Torero stated in his oral evidence. These are quotations from pages 177 and 179 of the PDF transcript.

He said:

"Question: ... some very large international fires with comparable fire spread have not resulted in

penetration of smoke and flames into the lobby or stairs ...

"...

"Answer: ... So, in principle, compartmentation is a very robust way of giving a very significant amount of time for people to enter the stairs and be safe in the stair for an even longer period of time." [Day 78, 20 November 2018, page 177 and 179 to 180]

Now, the point has been well made that one should not attempt to draw easy comparisons with other fires in other buildings whose detailed components may well be presently unknown. But that is exactly the point that we seek to make. It is the use of ACM PE in combination with other factors which has given rise to the problem, and we ask you to bear this in mind throughout and to emphasise the point, please, in your Phase 1 report.

I may add that no one could possibly suggest that our clients had a decision-making role in relation to any of these other factors in respect of Grenfell Tower.

My next and third submission is that if the refurbishment of the interior window surrounds and the external envelope of the building had been carried out in a different way, it would have been possible for the firefighters to extinguish the fire in flat 16 before the fire even reached the cladding system.

In different ways, all three of the inquiry's relevant experts accept that the materials with which and the way in which the interior window surrounds and the external envelope of the refurbished building were constructed meant that an internal fire in one of the apartments would penetrate rapidly into the cladding system. That is definitely the view of Dr Lane and of Professor Torero. It is also the view of Professor Bisby, insofar as he acknowledges that the window surrounds were, on any view, one of the routes by which the exit of the fire occurred, even though wrongly, as we have submitted in our written closing, he considers that flame exiting an open window may also be relevant.

We note that my learned friend Ms Barwise in her oral comments agreed that Professor Bisby is unlikely to be right about this, and you will find that at page 56, line 6, of Monday's PDF transcript.

Now, it's worth reminding ourselves at this point, as I develop this particular argument, of a couple of matters of timing.

Mr Kebede's first 999 call, if I'm right, was at around 00.54.

As Mr Mansfield pointed out, a simple fire extinguisher in his hands would've made a big difference

to the outcome. But in any event, the firefighters themselves were in the flat not long after 01.05 -- 01.07, I think -- and if the window surrounds had been capable of maintaining compartmentation, as they ought to have done, again, the course of subsequent events in terms of the fire reaching the cladding system as a whole would have been very different.

Remember also, please -- this is a further point within the same theme -- that the use of PIR insulation immediately outside the window structure, a material which has a low thermal inertia and, therefore, catches fire relatively quickly, meant that not only did the fire exit from the flat much more quickly than anyone would've expected, but it contributed to an increase in temperature within the cladding system cavity, thereby providing optimum conditions for the ACM PE panels to catch fire.

This sequence of events was entirely avoidable if a different approach to the refurbishment had been adopted, irrespective of the type of rainscreen panelling which was thereafter superimposed.

Now, in that submission, again, we are supported by the written closing statement of Mr Friedman, Ms Barwise and their colleagues, who at their paragraph 2.46, and I quote, make the following point. It's exactly the

point that I've just made:

"Had the insulation used been of limited combustibility, this would have reduced the speed with which it burned, particularly at the outset ..."

And this is the key part of it:

"... potentially enabling LFB to extinguish the fire before it took hold in the facade and/or enabling occupants to evacuate in time."

That point was confirmed orally by Ms Barwise on Monday at page 72, line 7.

If that point about the insulation is valid, as we submit that it is, then it must follow that the same point can equally correctly be made not only in relation to the insulation which was attached to the exterior of the building, but in relation to the components of the window surrounds to which I referred a little earlier.

This point in general, this third point, is consistent with point 2, which I made previously, namely that it was only the use of the ACM PE panels in combination with other components that gave rise to a risk to health and safety. The point is obvious and, we submit, irrefutable.

My next point, my fourth point, is that if certain internal features of the building had been differently designed and constructed, then the fire would've

penetrated the building much less rapidly and thus all or at least much of the tragic loss of life would have been spared. By internal features of the building, I have in mind, among other factors, the nature of the purported fire doors, the nature of the ventilation system and the absence of sprinklers. Factors such as these had a key influence upon the penetration of the fire from each of the individual flats into other parts of the building.

A comparable point could be made in relation once again to the design and construction of the window surrounds, which had a key influence on the speed with which the external fire penetrated back into the interior of the building.

In essence, as many of the experts have highlighted, there was a fundamental failure of compartmentation, a key assumption on which high-rise fire safety strategy is predicated.

I move on to my fifth point, which is to make a comment arising from the evidence of some of the members of the fire service.

It's clear from that evidence that the issue of compartmentation was one to which many if not all of the firefighters attached the greatest importance.

In the evidence given by the senior officers of the

London Fire Brigade, they explained that firefighters did assume in advance of the fire, and moreover considered that they were entitled to assume, that the regulatory system would ensure that compartmentation would be maintained, making it unlikely that a fire in a particular apartment would penetrate to the outer facade of the external envelope. They stressed that they had assumed also, and were entitled to assume, that a fire affecting the external envelope would not be expected to penetrate back into the building and spread internally, again in breach of compartmentation.

They clearly believed that, in the case of Grenfell Tower, breach of compartmentation, both externally and internally, had occurred, and that this was not only unforeseeable, but was, indeed, a bigger issue for them than the fire spread on the external envelope.

Now, the concluding comment that I would make about these points is that if the firefighters were entitled to make or did reasonably make such assumptions as to the level of compartmentation which would be maintained within this high-rise block, then it would follow, would it not, that the supplier of a component part -- of one single component part -- of the external envelope would surely have been entitled to make a similar assumption,

particularly if, after such supply, that supplier was not involved in any of the subsequent refurbishment and construction work.

My sixth and seventh points are shorter, and they are these.

Firstly, the sixth point, just to identify or to isolate and say a word or two about the insulation.

It is our submission that the external spread of the flame was substantially exacerbated by combining ACM PE with combustible PIR insulation without any horizontal or, indeed, vertical bands of non-combustible material to limit spread. The PIR insulation ensured that the fire would spread to new portions of the building and then ignite the ACM PE. The absence of breaks in the continuity of combustible materials ensured that the fire had a clear path to spread across the entire facade.

My seventh point, which relates to the white Aluglaze panels, which were also capable of catching light quickly and of contributing to the spread of fire across all the facades of the building, the use of these panels is an example of the design choice, just as the choice that I criticised in my previous point, in other words the failure to ensure that there were bands of non-combustible material to limit the fire spread.

Instead, the use of Aluglaze panels between the windows self-evidently created a path by which the fire could spread and did spread from one level to the next.

So I move to my eighth point.

The tragedy at Grenfell Tower shows the awful consequences which can arise when combustible materials are used in a particular combination, and configured in a particular manner, when compartmentation is significantly compromised by refurbishment works, and when there is a lack of any or any sufficient protective measures such as sprinklers.

However, that does not show that the use of ACM panels in itself would've given rise to a risk to health and safety. Under the applicable regulatory regime, there was no prohibition on the use of this material, and it has been widely used. Whether it could be appropriately used, and, if so, to what extent and in what manner, would've been a matter for assessment, taking into account all the features of the building, including its component materials, and including the extent -- this is important -- of active and passive fire prevention measures.

We do suggest that it's likely that if there were sections where the continuous ACM PE panel had been interrupted, either by non-PE panels or different design

features, such that the continuity of the PE was broken, the fire would've been slowed or interrupted, although the combustible insulation and perhaps the nonexistent or ineffective cavity barriers, would've allowed the fire to propagate in any event.

It's also possible that, had the white panels not been combustible, there would've been no vertical spread between the spandrels, as there would've been neither combustible insulation nor combustible panels in the window line.

If a non-combustible band had also been present on the columns, it is likely that fire spread would've been dramatically slowed and possibly prevented.

Now, similar points -- and I just need to develop this particular argument a little further -- can be made in respect of the architectural crown. Again, a design choice by others which we accept may have some significance, though in our written closing, as you've seen, we've explained why the significance of the crown in relation to fire spread may have been somewhat overstated. Equally, the significance of the ACM PE panels forming part of the crown may itself have been overstated, given the extensive presence, once again, of combustible insulation.

We would refer you, please, to paragraphs 85 to 92

of our written closing, in which these points are covered in detail.

Let me summarise very briefly the points that we make in those paragraphs.

Firstly, as regards the structure of the crown, as we know, this comprised a series of vertical ACM PE fins or louvres, and below these was aluminium coping with a layer of insulation underneath, as Dr Lane's figure 10.47, with which we're all familiar, makes clear.

We explained in paragraphs 86 and 88 of our closing that there is clear evidence -- and this, I think, is a point that has not yet been sufficiently noted -- that some of these louvres were unaffected or, at any rate, not fully affected by the fire. We submitted in our written closing that this showed that the fire on those panels was not self-sustaining without the heat retention of backing insulation, or in other words that it was the insulation which was significant in driving the spread of the fire.

We argued and continue to argue that that is supported by some images produced by Professor Bisby himself, which show undamaged ACM louvres, which he has annotated, "Section of uninvolved architectural crown". Those are, I think, figures 142 and 139.

This approach is supported also by the evidence of

Dr Lane in her paragraphs 10.8.20 and 10.8.21, and let me quote briefly from those paragraphs.

She says that the fire spread around the crown of the cladding system would've been supported by the presence of combustible cladding panels and insulation, the insulation wrapping over the top of the roof edge.

She says that the cladding fins had no combustible insulation behind them, and they were not continuous, and therefore, in her view, it is currently unclear to what extent the burning of the fins may have contributed to fire spread at roof level.

Those points, we suggest, do emerge clearly from the evidence that you've heard, and which we've analysed, as I say, in greater detail in our written closing, despite some anxieties which we had to express in our written closing as to the way in which the matter was dealt with in questioning.

Now, I come to my final two points, points 9 and 10.

As I foreshadowed earlier, these two points relate not so much to the evidence that you've heard, but as to the approach which we respectfully suggest you might wish to adopt.

The first point concerns the scope of Phase 1 as we have understood it, and we hope that, in preparing your Phase 1 report, you will throughout bear in mind the

following.

Firstly, in his statement at the procedural hearing on 11 December 2017, your counsel made clear that the aim is that Phase 1 is a purely fact-finding exercise and he identified the relevant issues. That statement was followed through in his description of the scope of the Phase 1 expert evidence.

In response, following that hearing, you stated that Phase 1 would concentrate on what happened on the night of 14 June 2017, and would seek to establish where and how the fire occurred, how it spread so rapidly and how the interior of the building became progressively affected. You did, of course, stress the need for a degree of flexibility in relation to scope.

At the procedural hearing in March 2018, it was said that Dr Lane might express a preliminary view about certain aspects of compliance, but would not investigate how any instances of non-compliance came about, being matters that would be dealt with in Phase 2.

As regards section 4 in the list of issues, in which compliance is raised, at no stage has it been suggested that Phase 1 would go beyond section 4(b), dealing factually with the design, manufacture, composition and method of fixing of the cladding.

Finally, in his statement to the inquiry on

4 June 2018, your counsel repeated that the focus of Phase 1 would be on the events of the night of 14 June 2017 and, in particular, the state of the building at the time of the fire.

So we do feel entitled to submit, and do submit, that issues relating to compliance in relation to the cladding system, as well as sub-issues, such as test results and certificates, are and should be matters for Phase 2, and that it would be inappropriate for the inquiry to draw conclusions, even provisional, in relation to these matters.

That submission, we suggest, is supported when you look at the inquiry's letter to core participants dated 30 July 2018, in which it was expressly stated that Dr Lane's appendix F dealing with testing and certificates, and various compliance matters dealt with by Professor Torero, would be matters for Phase 2.

Perhaps it is for all these reasons that, as we understand it, the inquiry has not yet heard evidence as to how compliance in relation to the refurbishment was actually assessed during and following the refurbishment by the relevant regulatory authorities, such as building control and other relevant parties.

In the absence of such information being explored, any conclusion as to compliance would plainly and on any

view be premature. Moreover, it is to be recollected that the inquiry has not yet heard from Colin Todd, who was instructed to report and has reported specifically on regulatory issues.

Now, in the light of what I've been saying, we do respectfully submit that it was not all together helpful for the suggestion to be made that, in asking the inquiry to consider compliance at the stage at which the inquiry itself -- quite rightly, we say -- had promised to do, that core participants were kicking the can down the road. There should be no criticism of anyone for requesting that stated procedures should be adhered to and not contravened.

These comments have particular relevance in the context of one or two of the arguments that have been placed before you as to whether or not there was indeed compliance with the regulatory regime. We were vigorously criticised for a change of position in closing, and for failing to recognise the alleged non-compliance of our product. This criticism, we say, was, to use I hope a moderate expression, misplaced.

For the avoidance of doubt, we stand by the content of our written and oral opening statements. Indeed, we invite your close attention to them, please. Like others, we reserve our position as to whether the core

of an ACM panel constitutes, in the technical term, filler.

We will be submitting, however, in Phase 2 that the inquiry would be wrong to find that ACM PE itself was necessarily non-compliant with the regime. We've explained repeatedly in our Phase 1 written opening and closing the four recognised routes to compliance in Approved Document B, two of which Dr Lane has expressly decided not to consider for the purposes of Phase 1, including, importantly, the option of holistic fire engineering assessment in accordance with industry practice.

We respectfully note that counsel who criticised us for inconsistency herself recognises for the first time in closing that these four routes exist.

Once this is acknowledged, it's impossible to argue that ACM PE was itself necessarily non-compliant, whatever that expression may mean. The position in any individual case would depend on assessing the combination of materials and all other relevant considerations, as our opening statement showed.

We do note that in her oral closing -- and it's in the PDF transcript, [Day 87, Monday, 10 December] page 66, line 19 -- that Ms Barwise told you that in Phase 2 -- and please note that it was she who said "in

Phase 2" -- she will submit that the core of the panels should have been of limited combustibility.

The difficulty with that argument is that not only is there continuing debate as to whether the core was filler for the purpose of paragraph 12.7, a proposition which Dr Lane, at least, rigorously disputes, but in any event there are at least three other routes to compliance. Any argument based on an isolated and indisputably ambiguous element in the regulatory regime, a regime which, by common consent, is going to need serious reform going forward, is surely, as we have submitted, for Phase 2.

So it is essentially for these reasons that we consider that you were absolutely right to delineate the scope of Phase 1 in the way that you did, and to declare unambiguously that matters relating to the testing and certification of individual products simply do not arise at this stage.

That, at slightly greater length, was my ninth point, and I come finally to my tenth point, which is shorter.

It echoes comments made by many other core participants, in other words to stress what must, as we submit, be the relatively provisional nature of such conclusions as you feel you can make in Phase 1.

All the experts have very sensibly caveated their views by repeated references to the need for further experimentation and analysis. There remains, does there not, a good deal of primary empirical evidence yet to be gathered in, not least material held by the Metropolitan Police. There would, we suggest, be the risk of significant inaccuracy and, indeed, of grave injustice if you expressed firm and unalterable conclusions in relation to scientific and expert matters which have been but briefly covered in the oral evidence, without the opportunity for cross-examination or challenge other than through the submission of written questions, not all of which, perhaps understandably, were fully pursued.

That point is reinforced by the helpful letter from the inquiry received earlier this week concerning the possibility of yet further material coming to light, for example from the Metropolitan Police Service. Whilst we note that there may be the opportunity to make further Phase 1 submissions, we suggest that it is much more likely that any further material will be relevant instead to Phase 2.

With that tenth and final point, we trust faithfully recorded as always, though perhaps not on tablets of stone, we leave the matter in your hands.

SIR MARTIN MOORE-BICK: Thank you very much, Mr Hockman. We've made very good timing and I can see that Mr Leonard is on his way to address us.

Well, I was just wondering, Mr Leonard, whether you feel -- sorry, you take your place before I talk to you.

MR LEONARD: With some trepidation.

SIR MARTIN MOORE-BICK: I was just wondering whether you feel comfortable in finishing by the usual hour or whether we would do better to have a break at this point and resume after lunch. I don't want you to feel rushed.

MR LEONARD: I won't.

SIR MARTIN MOORE-BICK: There are things I need to deal with after you have finished your statement.

MR LEONARD: I'm trying to gauge where the wind is blowing here, I have to say.

For my own part, I can be finished by 1.05. I sort of negotiated with the shorthand writers that if that happened, it would still be possible, and that would clear this afternoon for all of us to think about the way forward and help you if we need to.

SIR MARTIN MOORE-BICK: Well, then, you carry on. I may have to trespass on people's patience a little bit after you've finished but I hope you will forgive me if I do that.

MR LEONARD: Indeed, sir.

SIR MARTIN MOORE-BICK: Well, when you're ready, you get started.

Closing submissions on behalf of CS Stokes Associates Limited by MR LEONARD

MR LEONARD: Yes. Sir, thank you on behalf of CS Stokes Associates Limited for allowing us this further opportunity to address you in oral submission. We've supplied a written submission that we know you'll have taken account of.

First of all, may I just say, as others have, that the courage and fortitude shown by bereaved, survivors and relatives when giving evidence has been truly remarkable, and the bravery and commitment of the emergency services who attended is similarly worthy of recognition.

CS Stokes remains committed to assisting the public inquiry as best it can, primarily with the Fire Safety Order and fire risk assessments and, to that end, has provided disclosure to your team, suggested questions, some of which have been asked, and provided a lengthy witness statement in response to the rule 9 request.

My submissions today will focus on the following:

1. Topics for determination by you at Phase 1.
2. Some more comment about stay put.

3. Some more comment about GRA 3.2.
4. Some inferences of fact we invite you to consider.
5. Some conclusions.

As far as topics for Phase 1 are concerned, I bear very much in mind what we have literally just heard from my learned friend Mr Hockman QC, who takes a slightly different view in oral submission that, as I apprehended -- and I think I'm the last -- almost every other person addressing you orally has taken, namely scope and the issue of compliance.

I agree with him that, as at 4 June 2018, and in a letter following that up on 30 July, core participants, about expert evidence, were invited to the issues that were to be determined at Phase 1.

As we perceive it, none of the questions identified on 4 June refer actually to compliance with Building Regulations, even compliance of the cladding system.

Phase 1 has not formally been expanded, and we haven't heard from your team as part of closing submissions, but it has always remained flexible. A number of core participants, the BSRs, Royal Borough of Kensington and Chelsea and others have said and, indeed, asked that compliance of the cladding system be addressed.

As we said in opening, CS Stokes does not dispute the proposition, perhaps even more now reinforced after months of evidence, that the external walls of Grenfell Tower did not adequately resist the spread of fire, and that thus it was in breach of the functional requirement of the Building Regulations, and we have no objection to you addressing that issue directly in your Phase 1 report. However, if you do think it appropriate to go that far, may we invite you to say that no other issue of compliance should be determined at this stage.

By way of example only, a degree of evidence and comment is made about the front doors to the flats. Sir, we have already supplied specification for the 2011 and 2012 flat front door work, and relevant documents, by way of annex to disclosure and a witness statement, and we have referred to it in our witness statement. These documents identify the doors that were to be obtained, what they were to be fitted with and how it was to be done, including details of a survey done by a third party of those doors following the work that had been completed. It was apparent that Dr Lane had not seen that material. We're not sure why. But any discussion, we respectfully suggest, about compliance in relation to those doors ought to include consideration of that material at the very least.

Some evidence was given about testing requirements of those flat doors that seems to us possibly out of step with what we suspect to be the relevant British Standard, and there may be an inconsistency between criticism of the lobby doors and performance on the night.

Further evaluation, sir, as you know, of the lift operation and ventilation system is also underway, so that, by conclusion, we have no difficulty with a compliance finding being made in relation to the cladding system if you think it appropriate, but would invite you to avoid making other findings in relation to compliance on the other issues.

Stay put.

Despite it still possibly being viewed as a misnomer by some, stay put is an evacuation strategy and is referred to as such in the local government guidance document that you've heard reference being made to on page 180. It is also described in that way in the London Fire Brigade's own materials.

If you will forgive me for saying so, contrary to what Mr Mansfield QC said yesterday, get out and stay out was not the policy in the tower prior to the refurbishment. CS Stokes was involved in the building as early as 2009, and at that stage it was stay put, and

it has continued to be that way ever since.

CS Stokes cannot presently date the notice that you were reminded of yesterday. It may be many years old. But more importantly, it may only relate to the common parts and to someone who discovers fire in those common parts, rather than to those otherwise in the building, not immediately affected. To that extent, it is consistent with that part of the stay-put strategy that existed.

We can, however, say with certainty that for the residential parts of the building, stay put was the strategy in place since CS Stokes were involved in 2009, and in all likelihood, for the reasons that you've heard, ever since the building was constructed.

The second point I'd like to make about stay put is this: stay put is advice, it is not an order. However, it is important advice, desperately important advice, both to be given and received, because for anyone caught up in a fire, it may represent the answer to the key question: what do I do to keep safe?

The advice is leave if the flat is affected by fire, or, even if it is not, leave the flat if you want to. Otherwise, the advice is to remain in your dwelling.

However, insofar as it is relevant to firefighting strategy, it is not a binary position; in other words,

stay where you are or self-evacuate. For example, if the advice given were, "Wait where you are, you're going to be rescued", that does not, in our submission, represent an abandonment of the stay-put advice per se, in the sense that it is not inviting self-evacuation.

Conversely, abandoning stay put is or would be saying to someone requiring fire survival guidance, "Now you are best advised to self-evacuate."

So the key to understanding this distinction, in our respectful submission, is to understand that changing stay-put advice is to require or advise self-evacuation.

As others have already said, stay put is predicated on the basis that compartmentation is maintained, and that is supported by the Building Regulations as well as Approved Document B.

Whichever expert view of compartmentation and breach is to be taken, the LFB appeared to anticipate as foreseeable fire spreading to a compartment above the fire floor as a matter of practice. That's not because fire spread has been promoted by the external walls, as in this case, but because it may pass through a window to the flat above, sometimes referred to as the coanda effect.

In practice, therefore, in the context of strategy, compartmentation breach is not cut and dried to the fire

leaving one flat necessarily and entering another. Likewise, if a firefighter opens the main front door to a flat just to fight a fire that's within it, theoretically compartmentation is automatically breached, but not significantly so. The same might be said of opening a lobby door so as to allow a hose through for firefighting activity.

Thus, it is the extent and the effect of the breach of compartmentation which is important in the context of strategy, not whether a breach has occurred per se.

May I repeat what others have said. On the night of the fire, the LFB were fighting a fire which they never anticipated having to fight and were giving FSG, fire survival guidance, on an unprecedented scale. The tower's active and passive fire safety measures were being asked to address a fire they had never been designed or installed to address.

We are, however, conscious that despite multiple criticisms of the firefighting tactics deployed on the night, you are yet to year from Mr McGuirk, your firefighting expert. So in our submission, it is difficult to say that definitive conclusions on firefighting would be anything other than premature.

However, if the firefighting strategy did need to be changed -- and this may be something that Mr McGuirk

needs to look at -- then that change could have been so as to increase the emphasis on a structured and assisted evacuation of the building that did not rely on a call being received from a particular flat, but effected a structured and assisted evacuation of the building, floor by floor.

In other words, whereas the plan appears to have been rooted in reacting to FSG calls rather than proactively seeking the residents out, there may be some grounds for believing the latter should have been the focus earlier. But, again, it may be too early to make that final determination.

What is interesting and of note, however, is that GRA 3.2 on page 29 foresaw that, as a matter for the incident commander to consider, advising callers to be and I quote "guided from their property by the firefighters", was an option. That is not to say that there was reliance on the LFB to be responsible for evacuation in advance as a matter of course. It identifies what may become necessary depending on the circumstances. Paragraph 7.58 of LFB PN633 says something similar.

But if that was the case, if we were moving to an assisted evacuation, that would not have required the residents to leave the flat and try to make it on their

own. It would've been an assisted evacuation from where they were.

We invite you not to underestimate the fact that those changing the advice to self-evacuation would've known that it carried profound risk to those being told to evacuate for reasons that have been explored in evidence.

However, we still maintain that either stay put in or self-evacuation out was not the only binary choice, and if that strategy had been changed a little earlier, perhaps the emphasis on equipment might have been different, and by that I mean obtaining as much extended duration breathing apparatus as possible as an absolute priority, establishing a means of communication might have been more appropriate, and to that end we do invite you to consider the intercom. This was raised not by CS Stokes because it was said to be an existing fire safety installation, but because at the very least it represented a chance for all of the flats to be contacted, and that does not appear to have been considered. Interestingly, you may also note that on page 49 of GRA 3.2, the question of an intercom as a control measure is specifically referred to.

Next, GRA 3.2, which has been extensively referred to in evidence and submissions. It's a national policy

document from which local policy documents should, as we understand it, be developed. Thus, it should feed into, for example, LFB 633, LFB 800 and others, and then ultimately into the ORD document for each high-rise building operationally.

As I perceive it, it is not disputed that the LFB was required to have an operational contingency plan in the event that stay put became untenable. The contingency plan would have been one that took over, essentially, strategically from stay put, and therefore needed to be developed in accordance with that document.

There is no doubt that, through a process of 7(2)(d) visits, the LFB are required to have and, as a matter of fact did have, every opportunity to visit the tower and formulate such a plan. Crews were regularly on site and had access not only to the lifts themselves, but also the ventilation system.

What is not obvious and immediately clear is why the GRA 3.2 requirement for a contingency plan did not find its way into LFB 633. What you will note, however, is that the ORD document itself for the tower has a space in it for operational contingency plan that was not actually completed.

My learned friend Mr Seaward has referred to a passage of Mr Stokes's fire risk assessments, and it

is true to say that in his fire risk assessments for 2010, 2012, 2014 and both in 2016, all observed that the fire service or TMO employees would arrange for a general evacuation of the building if appropriate.

As was made clear in my opening, the FRAs were there for the TMO to provide to the LFB as they wished. We have absolutely no doubt, as Phase 2 disclosure will show, that the 2012 FRA was definitely supplied to the LFB, without any criticism or concern raised -- quite the opposite -- and we are fairly confident that the June 2016 one was as well, but no doubt we can return to that in due course.

Reference to general evacuation in the FRA, we respectfully suggest, is entirely consistent with the requirement for a contingency plan in GRA 3.2 and in LFB policy 7.46.

May I turn to some inferences of fact to be drawn and, fortunately, looking at the time, there aren't very many of them.

We have set some out in our written submission, and they are profound but simple ones to be drawn from some simple but important propositions of fact.

Firstly, the first firefighters were in flat 16 at or about 01.07 on the night of the fire. Shortly thereafter, fire escaped flat 16 through the fan vent,

an open window or via the uPVC surround and ignited the cladding system. The cladding system did not just come into contact with flame, as it might have done, and resist fire spread, as it should've done, it ignited. If it had not so ignited, it is blindingly obvious to state that the fire would not have spread in the way it did. However, as has been emphasised this morning, most importantly in this context, the original internal fire in the kitchen was extinguished by or about 01.21 that morning.

The inferences to draw from those facts, we respectfully suggest, can be these.

Compartmentation would never have been compromised by the original fire in flat 16 with a properly compliant cladding system. It would've resisted the spread of fire rather than ignited and promoted it.

There is no reason to suppose that if the cladding system had not ignited, stay put as a safety measure or strategy would have been compromised.

There is no reason to suppose that if the cladding had not ignited, relevant active and/or passive fire measures in the tower would've engaged at all, let alone compromised outside flat 16. The firefighters would have extinguished the fire in the way they described, ensured there was no spread to the flat above or deal

with it if it had, and address the aftermath to the extent they needed to.

In all likelihood, sir, we say, relevant active and passive fire measures present in the building would have coped as intended with all fire and smoke generated by the original fire by 01.21.

As has been said by others, therefore, key to this whole process of spread is the ignition rather than resistance of the cladding system and not the failure of active and passive fire measures in the tower.

By way of conclusion, even if a contingency plan had been formulated by the London Fire Brigade, we respectfully suggest that such a plan would never have contemplated a need to evacuate the entire building with some urgency by 01.26, if that is a conclusion you come to. They might have identified how it might have been achieve in the longer term, but not within that timescale.

Despite cladding being referred to in GRA 3.2 and despite evidence about previous high-rise fires, in the immediate aftermath of a refurbishment, involving multiple expert contractors, a fire engineer and approval from building control to which the London Fire Brigade are party through their fire engineering department, the LFB, we venture to suggest, would never

have contemplated the fire spreading so quickly or so extensively for the reasons it did.

If the LFB had contemplated such fire spread, and the only conclusion was the need to be able to effect an all but immediate complete evacuation of the building, stay put as a policy is highly unlikely to have been in place at all, and the active and passive fire safety measures in the building are unlikely to have been thought capable of supporting such a need.

This feeds in to Dr Lane's reasoning that the building should not have been occupied or handed over in the conditions it was post-refurbishment. Her conclusion was that, on the basis of that construction, there were no active or passive fire safety measures that could have addressed or reduced the risk of harm posed by the cladding as constructed. As fire risk assessor, we agree.

However, suffice it to say -- and we have said it in writing -- that if a building is passed as compliant by building control, that should be capable of being taken to mean that the functional requirements of B4 were satisfied, that a route for compliance with Approved Document B had been properly achieved and, thus, that the cladding would not represent a risk to the health and safety of those that lived there.

But those, sir, are matters for you to investigate at Phase 2.

Unless I can assist you further, those are my submissions.

SIR MARTIN MOORE-BICK: Thank you very much indeed.

Mr Millett, can I just check there's nothing you wish to say in response to any of those statements?

MR MILLETT: No, Mr Chairman, there isn't. Thank you.

Closing remarks by THE CHAIRMAN

SIR MARTIN MOORE-BICK: Thank you very much.

Well, that brings us to the end of the closing statements and also to the end of these Phase 1 hearings.

I hope I'll be forgiven for trespassing a little further on your good nature and that of the transcribers if I take this opportunity to close the proceedings with a few remarks, because before we all leave, I think this is a good time to take stock for a moment or two of what the inquiry has done so far and what it will be doing over the coming months.

In Phase 1, we're seeking to establish in some detail what happened at Grenfell Tower on 14 June 2017, so that in Phase 2 we can focus our attention on the critical circumstances and decisions which enabled such a devastating event to occur. I'm pleased to confirm

that work on Phase 2 has already been going on for several months.

Those who lost friends and relations, those who lived in the tower and lost both their homes and everything they owned, and those who lived close to the tower and were directly affected by the fire, all want to know how it was possible for a disaster of this kind to occur.

But before we can answer that question, we need to understand in some detail the course of events that took place, so that in Phase 2 we can ask the right questions of the right people. In the course of doing that, we may also be able to confirm or dispel some of the rumours and suspicions which have surrounded the events of that night.

This inquiry is unlike any other in the number of core participants and, I would suggest, in the scope and complexity of the evidence it has considered and will yet have to consider.

There are currently a total of 598 core participants, of whom 568 are individuals, 10 are governmental or institutional bodies of one kind or another, and 20 are commercial bodies.

Over the last 12 months, the inquiry team has collected, sifted and disclosed over 20,000 documents,

not including the many witness statements we've also received. All those documents had to be checked for relevance and to ensure that no personal data was inadvertently disclosed in contravention of the data protection legislation.

Those documents which have been referred to in the course of the hearings have been published on the inquiry's website, and we shall continue to publish fresh documents in that way as appropriate after first informing the core participants of our intention to do so.

The inquiry has received 668 statements from firefighters. Most were from members of the London Fire Brigade, but some were from other regional fire and rescue services which provided assistance on the night in question. It has heard oral evidence from 88 of those witnesses, including firefighters, control room officers and officers of the London Fire Brigade, including the commissioner herself and other senior officers. Statements from 262 individual fire and rescue personnel have been read into the record.

The inquiry has received 307 witness statements from a total of 275 bereaved, survivors and residents, for which I'm particularly grateful, knowing how difficult it must have been for many of them to describe their

harrowing experiences. 35 bereaved, survivors and residents gave oral evidence, often in very moving terms. A total of 266 witness statements -- that's 47 from bereaved, friends and relatives, 150 from survivors and residents of the tower, 68 from residents of the walkways and one from a relative of someone who survived -- have been read into the record and form part of the evidence before the inquiry.

The inquiry has also received statements from representatives of the Metropolitan Police Service, the London Ambulance Service and others who were present on the night.

The inquiry has also had the benefit of hearing from many expert witnesses, all of whom are leading authorities in their fields. They have examined the tower and the remains of some of the equipment found within it. They have provided the inquiry with detailed reports containing their findings and expert opinions based on them. They have given evidence in person to explain their opinions and have responded to questions directed to them.

Public hearings began in May this year with the commemoration hearings held at the Millennium Hotel, which brought those who died in the fire to the fore. Those hearings have ensured that they will never be lost

from sight and amid the many issues of a technical nature with which the inquiry inevitably has to grapple.

The commemoration hearings were followed by several weeks of hearings here at Holborn Bars which started at the beginning of June and have continued with occasional breaks until today. As a result, the inquiry has sat to take evidence and to hear opening and closing statements for a total of nearly 100 days.

I am very grateful to all those who have given evidence to the inquiry, whether in the form of written statements or in person at the hearings, despite the difficulties many of them clearly experienced in doing so.

It has not been possible to call all those who provided statements to give their evidence in person, but all of them can be assured that their evidence is very valuable and will be taken into account when the report is drafted.

The next step of course for the inquiry is to examine the very significant body of evidence amassed by it and to produce a report describing in appropriate detail what happened. That report will be produced as soon as possible, having regard to the volume of material that has to be digested.

I have always made it clear that, in discharging the

inquiry's terms of reference, it will seek to carry out, as far as it properly can, an investigation into the deaths caused by the fire of a kind that will make it unnecessary for the coroner to pursue her own investigations. Much of the evidence required to enable the necessary findings to be made is already available, but it's possible that some may still be missing. Piecing together the evidence relating to each person who died is a complex task, and one in which I understand that those who represent the bereaved would like to join.

I welcome their offer of assistance, and hope that, insofar as they consider that the material available at this stage is insufficient to enable me to make all the findings needed to meet the coroner's requirements, they will help me to identify what further evidence they think might be obtained within the scope of the inquiry's terms of reference. It may be desirable to hold further hearings for that purpose during the course of next year with a view to producing a supplemental report.

In the light of the conclusions reached in the Phase 1 report, it may be possible to make certain recommendations without waiting for the final report at the end of Phase 2. I am going to say a little bit more

about that in a moment.

However, some of the bereaved, survivor and resident core participants have expressed the view through their counsel that, in the light of the evidence which the inquiry has already heard, it is clear that there are some steps which can and should be taken immediately in the interests of public safety, without the need to wait for further evidence or undertaking consultation of any kind, and without waiting for the publication even of the Phase 1 report.

When the matter was last raised, however, there did not appear to be agreement about what those steps might be, so I put in place a procedure for considering proposals from those core participants who wish to put them forward.

The first step was to invite the five governmental and institutional core participants who bear a particular responsibility for the safety of the public, or perhaps a section of it, to tell the inquiry what steps they had already taken in response to the fire or intended to take in the near future. Position statements have now been provided by all those bodies, and have been published on the inquiry's website.

The next step is for core participants and the inquiry itself to put forward suggestions of their own

and comment on those put forward by each other. The expert witnesses instructed by the inquiry will also be asked for their views. Depending on the outcome of that process it may be desirable to hear argument about the merits of some of those proposals before reaching a final decision.

As I have said, I think it likely that I shall want to consider some recommendations in the light of the findings in the Phase 1 report. In general, however, I think that before doing so it would be wise to canvass the views of those who have relevant experience in order to avoid unintended consequences of an undesirable kind. I shall consider how best to do that in the light of the proposals that come forward under the procedure that I have outlined.

Let me move on for a moment to deal with Phase 2.

As I have said, work on Phase 2 has been underway for many months. I should like to start the Phase 2 hearings as soon as possible because I know that people are eager to shine a light on the various actions and decisions that ultimately led to the disaster. However, there is still much work to do.

Perhaps I may be forgiven for taking a moment or two to explain why.

Phase 2 involves examining in some detail the design

and execution of a substantial building project that took over four years to complete, as well as a range of related matters. Like all such projects, it generated a huge number of documents. In one sense, that is good, because much of the story will be told by the documents themselves. But it also means that there are a very large number of them to be reviewed, redacted where necessary and digested.

In addition, the inquiry will be examining the regulatory framework and the role of the relevant authorities in relation to it, as well as the response of various organs of central and local government to the disaster. Again, there will be a significant amount of material relating to these questions.

The inquiry currently expects to disclose over 200,000 documents to the core participants. It is about to start doing so, but the exercise is currently not expected to be completed until the autumn of next year.

The inquiry will also be obtaining witness statements from all those involved, in particular from those who are most closely involved in the refurbishment project. Again, that work has been underway for some months, but there is still a lot to do, and new questions that need to be put to potential witnesses are likely to emerge from the documents as they are

examined.

As the inquiry's lawyers become familiar with the documents, they're likely to identify new questions to put to potential witnesses.

Finally, in order to enable the inquiry to probe deeply into the work of the council, the TMO and the various contractors, it will be necessary for its lawyers and the lawyers for the various core participants to become thoroughly familiar with all the material to be sure that they have obtained everything that is relevant to our work.

The investigation must be thorough and the work to which I have referred inevitably takes time.

Given the scale of the preparations that have to be carried out, I think it unlikely that it will be possible to start Phase 2 hearings before the end of next year.

However, careful and detailed preparation which enables us to focus on the aspects of the project that are of real significance should make it possible to ensure that the hearings, once begun, can be completed within a reasonable time.

I know there is a certain amount of dissatisfaction with the rooms that the inquiry has been using for the Phase 1 hearings. We are well aware that many people

had hoped that we could find rooms in or at least nearer to North Kensington, but although we made many inquiries, we were unable to find anywhere that could adequately accommodate our various needs. We have done our best to ensure that the rooms at Holborn Bars are as useful and friendly as possible, and we're very grateful to the staff of De Vere for their assistance in helping us to do so, and their willingness to accommodate some of our more demanding requirements.

At the same time, however, we have continued to look for somewhere suitable further west. We're conscious, given the scale of Phase 2, that we shall require larger premises in order to accommodate the requirements both of legal representatives and of those from the local community and elsewhere who wish to attend the hearings.

I am pleased to tell you that we have found some premises in west London which have recently become available and which would provide us with what we need, including a larger hearing room. We have begun negotiations to enable us to take these premises and, if all goes well, we should be able to move there in time for the start of the Phase 2 hearings.

Finally, I'd like to express my thanks to all those who have been involved in these hearings for enabling them to be conducted in a collaborative way, thereby

helping to ensure that we've been able to obtain the fullest possible picture of what happened during the course of the night when the fire raged through Grenfell Tower.

They include many witnesses who have given evidence in person, difficult though that may have been at times, counsel and solicitors representing the core participants, the members of the inquiry team, the press who have been reporting our work on a daily basis and, of course, all those who have supported the hearings, whether as transcribers, document managers, ushers, counsellors, members of the technical support team or members of the staff at Holborn Bars.

It would not have been possible to conduct these hearings without your efforts and I'm very grateful to you all.

Finally, can I wish you all a good break over Christmas, or whatever celebrations you are going to have. I'm sure you all deserve it.

Thank you very much indeed.

Well, that concludes the Phase 1 hearings, and we shall be in touch in due course to let you know when we're going to sit again.

(1.25 pm)

(The hearing concluded)

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