



GRENFELL TOWER INQUIRY RT

Day 234

February 17, 2022

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Phone: 020 4515 2252

Email: transcripts@opus2.com

Website: <https://www.opus2.com>

Thursday, 17 February 2022

1 (10.00 am)
 2 SIR MARTIN MOORE—BICK: Good morning, everyone. Welcome to
 3 today's hearing. Today we're going to continue hearing
 4 evidence from Dr Sarah Colwell of the BRE.
 5 So I'm going to ask Dr Colwell to come back in at
 6 this point. Thank you.
 7 DR SARAH COLWELL (continued)
 8 SIR MARTIN MOORE—BICK: Good morning, Dr Colwell.
 9 THE WITNESS: Good morning.
 10 SIR MARTIN MOORE—BICK: Last lap. Are you ready to
 11 continue?
 12 THE WITNESS: I am ready to continue, thank you very much.
 13 SIR MARTIN MOORE—BICK: Thank you very much.
 14 Good morning, Ms Grange.
 15 Questions from COUNSEL TO THE INQUIRY (continued)
 16 MS GRANGE: Yes, thank you.
 17 Yes, good morning, Dr Colwell.
 18 Now, one of the points we were discussing yesterday,
 19 not long before we broke off, was about the FAQ, and you
 20 told us that by August/September 2014, you and others at
 21 the BRE had decided not to go down the FAQ route, not to
 22 propose that to government, and to instead wait for the
 23 revised version of ADB; yes?
 24 A. Yes.

1

1 Q. Now, in that period, so thinking back to
 2 August/September 2014, when did you understand any
 3 revised version of the approved document would be likely
 4 to be finalised at that point?
 5 A. I don't recall that in detail, as to what that timeline
 6 of that process would be, no.
 7 Q. Right. You said it was Dr Smith informing you about
 8 this revision to ADB; did she give you any timeframe
 9 within which this review of ADB would start or finish?
 10 A. No, it was a general discussion in the industry around
 11 that time that this was imminently on its way. That was
 12 sort of the understanding that people were coming to,
 13 that there was a revision due.
 14 Q. Right. One of the reasons I ask is: were you aware at
 15 this point that ADB had indeed been revised and a new
 16 edition was in force from 6 April 2013? So there had
 17 been quite a recent version of ADB; were you aware of
 18 that?
 19 A. Yes, that there had been amendments that had been made
 20 at that time.
 21 Q. So how could you think that a further edition might not
 22 be too far away?
 23 A. My understanding was that there was more work to be done
 24 that was being let to discuss that.
 25 Q. Right, I see.

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1 Help us with this: why does any further version of
 2 ADB preclude an FAQ going out, certainly on the big
 3 questions, the big points that were being raised by
 4 industry? Why were there two, you know, inconsistent
 5 with one another? They weren't, were they?
 6 A. I'd never been involved in an FAQ previously, so my
 7 understanding of how they worked was not that clear,
 8 beyond understanding that it was sort of a reference,
 9 single point, rather than a major piece of
 10 reinterpretation.
 11 Q. Right. So you didn't understand that the FAQ section of
 12 the department's website could be used to flag important
 13 matters immediately or at least quickly, given that
 14 reviews of the statutory guidance do tend to take some
 15 time?
 16 A. No, I didn't understand or had no appreciation that that
 17 was the type of approach.
 18 Q. Right. I see.
 19 Now, let's go back to what was happening with you
 20 and the CWCT now.
 21 If we go to {BRE00016101}. This is quite a long
 22 email chain. We don't need to go through all of it. It
 23 begins on 7 July 2014, so just five days after that CWCT
 24 meeting we were looking at. All of this was forwarded
 25 to you, we can see that at the top of the chain, but

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1 just so you have the context, if we look at the second
 2 email down at the bottom of page 3 {BRE00016101/3}, what
 3 we can see is that on 7 July, Stuart Taylor of Wintech
 4 is writing to David Metcalfe of the CWCT querying advice
 5 which had been given to Carea Façades by Alan Keiller of
 6 the CWCT about the use of their class B Acantha panels
 7 over 18 metres. We can see from Stuart Taylor's email
 8 that Wintech have taken the view, as Wintech did early
 9 on following Stuart Taylor's call with you, that the
 10 guidance in paragraph 12.7 of Approved Document B
 11 extended to external cladding panels generally and not
 12 just to insulation. So that's the context to this.
 13 If we go up to the next email on page 3, where we
 14 can see there David Metcalfe's response to
 15 Stuart Taylor, I just want to read from the second
 16 paragraph, where he says there:
 17 "Based on what is currently written in ADB, it would
 18 appear that the Carea rainscreen panels comply for use
 19 over 18m. The panels achieve B—s1—d0 in accordance with
 20 EN 13501 and are Class 0, and therefore would meet the
 21 requirements for external surfaces given in
 22 Clause 12.6/Diagram 40."
 23 Then he goes on in the next paragraph:
 24 "Clause 12.7 makes no reference to cladding panels
 25 etc, and the current view is that [this] does not apply

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1 to such materials. Where it gets confusing it that the
 2 discussions we had last week went a lot further, and
 3 suggested that the materials referred to in Clause 12.7
 4 include panels and membranes etc. We still do not know
 5 if this is the intention of that Clause. If it is, it
 6 is very poorly written and misleading, and needs
 7 clarifying ASAP."

8 Then in the final paragraph he says:
 9 "I hope this is of some use. I am very sorry that
 10 I cannot give you a definitive answer — the more we look
 11 into the fire regulations, the messier it becomes. What
 12 is clear is that further guidance is needed, and I hope
 13 CWCT will be able to provide this soon."

14 Now, David Metcalfe, Alan Keiller and Stuart Taylor
 15 had all attended the CWCT fire group meeting, we know
 16 that.

17 Now, did it become clear to you, when you received
 18 this chain of emails, that not only was Approved
 19 Document B unclear to some, but also it was still not
 20 being accepted by people that clause 12.7 applied to
 21 cladding panels? Did you realise that?

22 A. At the time, I wasn't making the connection that they
 23 were not taking on board what had been discussed.

24 Q. Right. Yes. Because it also appears clear from this
 25 email that the CWCT were continuing to advise industry

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1 that for buildings over 18 metres, as long as the
 2 external cladding panels achieved a B or a national
 3 class 0, that complied; yes?

4 A. Without reading that again, then that would appear to
 5 be — yes.

6 Q. Yes. My question is: did that not make the need for
 7 clarification a matter of some urgency, given that that
 8 appeared to be the advice that a body like the CWCT was
 9 carrying on giving to industry?

10 A. Given the review with hindsight, where we are now, yes,
 11 absolutely.

12 Q. Now, going a bit further up on this chain to the bottom
 13 of page 2 {BRE00016101/2}, we can see that Stuart Taylor
 14 forwards this email to you. So on 7 July, Stuart Taylor
 15 forwards the email to you, and he writes:

16 "There still appears to be great confusion regarding
 17 ADB clause 12.7. In the recent Fire Group meeting we
 18 briefly discussed the 'scope' of clause 12.7, in
 19 particular whether it includes all components within the
 20 facade construction (i.e. not just insulation products).
 21 It has been Wintech's understanding for many years that
 22 all elements of the facade construction (including
 23 rainscreen panels, etc.) should comply with clause 12.7
 24 when the building has a storey >18m above ground level.
 25 Following the Fire Group meeting you stated that you

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1 would speak with Brian Martin regarding this topic, with
 2 the intention of providing further clarification within
 3 the 'F&Q' section of the ADB Portal. In the meantime
 4 I would be grateful if you would review the short email
 5 trail below and provide you interpretation regarding
 6 this matter."

7 Do you see that?

8 A. Yes, I do.

9 Q. Now, do you remember ever replying to that email? There
 10 is no record of any reply to that, where you'd reviewed
 11 the emails below and given your opinion. Do you
 12 remember doing that?

13 A. No, I don't.

14 Q. The next email up in the chain, if we look at that, is
 15 on 6 August, so a month later. It's again from
 16 Stuart Taylor, who writes to David Metcalfe, and he says
 17 this:

18 "I have just spoken with Sarah. She has proposed
 19 that CWCT, Wintech and BRE meet to discuss this issue
 20 further, with the intention of formulating the wording
 21 for the proposed F&Q section within the ADB portal. It
 22 is proposed that this wording is then presented to Brian
 23 Martin for his sign-off. Sarah is currently away until
 24 September and it is suggested that we meet around 8th or
 25 9th September. A venue for the meeting is not set;

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1 however, we can meet at BRE or CWCT.

2 "Sarah also proposes that we can discuss any other
 3 questions/queries regarding ADB at this meeting."

4 Do you see that?

5 A. Yes.

6 Q. So do you remember having a call with Stuart Taylor on
 7 6 August at which you proposed a meeting between the
 8 CWCT, Wintech and the BRE?

9 A. I don't recall the call, but if — as Stuart's recorded
 10 an email to that, then I would ...

11 Q. Right.

12 Do you remember offering to discuss at the meeting,
 13 as Stuart Taylor says in this last section of his email,
 14 any other questions or queries regarding ADB?

15 A. No. It would be related to — well, my recollection of
 16 anything around that time would have been with regard to
 17 the further developments relating from that CWCT
 18 meeting.

19 Q. Right. So you don't think you offered to talk about any
 20 other questions regarding ADB? He is mistaken about
 21 that, is he?

22 A. I believe so.

23 Q. Right.

24 Now, the rest of this email chain is taken up with
 25 arranging the meeting that Stuart Taylor said that you

8

1 proposed, and if we look at the top of page 2, you said
 2 you would be happy to meet on 8 September, we can see
 3 that.
 4 A. Yes.
 5 Q. "Does 8th still work at BRE?"
 6 Then going up to page 1 {BRE00016101/1}, to the very
 7 top of the chain, you forward the entire chain to
 8 Stephen Howard on 2 September; yes?
 9 A. Yes.
 10 Q. Just to note, none of this is dealt with in your witness
 11 statement, is it? We didn't get any of that in your
 12 statement.
 13 A. I didn't forward that email, no.
 14 Q. Right.
 15 Let's go to the witness statement of Alan Keiller
 16 now, at {CWCT0000119/7}, and paragraphs 25 and 26. He
 17 says:
 18 "25. I attended a meeting with Stuart Taylor and
 19 Sarah Colwell at BRE on 8 September 2014. There was
 20 also another member of staff from BRE present but
 21 I cannot recall his name.
 22 "26. I cannot recall any details of the meeting. My
 23 recollection is that it confirmed the need for DCLG to
 24 provide confirmation of the intent of clause 12.7 and it
 25 was agreed that this would be done by means of a FAQ."

9

1 Do you see that?
 2 A. I do, yes.
 3 Q. Do you remember this meeting? Do you remember attending
 4 it?
 5 A. I remember a meeting taking place, yes.
 6 Q. Can you help us, who at the BRE attended? Because he
 7 believes that somebody else from the BRE as well as
 8 yourself was present.
 9 A. I would — having forwarded the email to Stephen Howard,
 10 I would imagine it would have been Stephen.
 11 Q. Right. Do you remember that at that meeting it
 12 confirmed the need for DCLG to provide confirmation of
 13 the intent of clause 12.7?
 14 A. It was to build on the discussions of how that route
 15 could be taken forward, yes.
 16 Q. Yes.
 17 Now, if we go briefly to Stuart Taylor's notes of
 18 this meeting, they're at {WIN00000001/40}, we can see
 19 that there, in the top part of the page, he's recorded
 20 that it was indeed Stephen Howard as well as yourself
 21 attending from the BRE, but also he's got Tony Baker
 22 there; do you see that?
 23 A. Yes.
 24 Q. Does that sound right to you, that Tony Baker attended
 25 this meeting?

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1 A. Entirely possible, yes.
 2 Q. Then towards the bottom of that page, third paragraph up
 3 from the end, we can see it says:
 4 "BRE to prepare words for adb portal.
 5 "12.7 clarification .
 6 "Expand that a tested insulation cannot be used in
 7 a different system and be approved."
 8 Do you see those words?
 9 A. I do, yes.
 10 Q. Do you remember discussing that at the meeting?
 11 A. I don't recall that, no.
 12 Q. Does it sound right to you that at this meeting the BRE
 13 agreed to prepare words for the ADB portal, including
 14 12.7 clarification ?
 15 A. I can't recall the contents of the meeting in detail .
 16 If that is how the findings from that were reported,
 17 then that would be their notes from that conversation,
 18 yes.
 19 Q. Right, and you don't disagree with those notes?
 20 A. I don't disagree, because I have no recollection or
 21 evidence to say otherwise.
 22 Q. Right.
 23 So we know this meeting took place on 8 September;
 24 how does this fit with what you told us yesterday?
 25 Yesterday you said that by August or September the BRE

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1 had decided that the FAQ route wasn't one they were
 2 going to pursue. So had you already decided that when
 3 you met the CWCT and Wintech at this point, or was that
 4 decision taken after this meeting?
 5 A. As I said yesterday, we were becoming aware that it was
 6 more than a single point response that the document
 7 needed, and looking at where the changes were going to
 8 be required, it was going to be a larger piece of work
 9 around that. The decision was taken around that time of
 10 August/September to look at whether it was better to
 11 move to a full review of part 12, and part of the
 12 outcome of the meeting from this was — it was clear
 13 that there was more required than just a simple FAQ
 14 question with a written answer, it was a more detailed
 15 response that was needed.
 16 Q. Yes, but can you help me with my question, which is: had
 17 the BRE decided that the FAQ route wasn't one they were
 18 going to pursue before or after this meeting?
 19 A. I think this fed into that — the outcome of this
 20 meeting fed into that — those sets of discussions.
 21 Q. Right. So are you saying you were already, what,
 22 questioning within the BRE whether this was
 23 an appropriate route?
 24 A. We were debating that at this time, yes.
 25 Q. Right. But, what, a final decision within the BRE was

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1 taken after this meeting? Is that your evidence?
 2 A. That's my recollection, yes.
 3 Q. Right, and what, shortly after this meeting?
 4 A. I think it came as a result when looking at trying to
 5 work again with what was being requested, that this was
 6 a route that was not proving to be, in our view,
 7 addressing the wider need.
 8 Q. Right.
 9 Were you candid with the CWCT and Wintech at this
 10 meeting by revealing to them that the BRE had some
 11 concerns about this FAQ route?
 12 A. I believe we were, but I don't think we were as —
 13 I don't believe we were as explicit as to say, "We don't
 14 believe this is the route to take", I think we were
 15 still looking at it as an option as part of that
 16 meeting, and that — as I said yesterday, I think that
 17 is my biggest — on reflection, that we perhaps didn't
 18 discuss it as openly in that context as we could or
 19 should have done.
 20 Q. Right. And you talked about a wider need which needed
 21 addressing; what wider need were you thinking needed to
 22 be addressed?
 23 A. Going back to the original aims and objectives of the
 24 CWCT meeting earlier in July.
 25 MS GRANGE: Right, I see.

13

1 SIR MARTIN MOORE-BICK: I mean, would it be fair to say, it
 2 looks from this note as though at least you left
 3 Stuart Taylor with the impression that you were going to
 4 go away and draft something.
 5 A. Yes, I would agree that we left him with that opinion.
 6 SIR MARTIN MOORE-BICK: Yes.
 7 MS GRANGE: Yes.
 8 Now, let's move on.
 9 On 7 October 2014, is it right that you attended
 10 a CWCT members' conference?
 11 A. I believe I did, in October, yes.
 12 Q. Yes. We believe that you gave a presentation at that
 13 conference. It was at the Science Museum, do you
 14 remember that?
 15 A. I've been advised that I was present. I don't remember
 16 the event itself, no.
 17 Q. Right.
 18 If we go to {MET00080679}, this is the CWCT AGM and
 19 members' meeting, and there is a list of members.
 20 You're present in this list of members, do you see?
 21 "Speakers", in fact, at the top.
 22 A. Yes.
 23 Q. Second name down, "Sarah Colwell, BRE". So it looks
 24 that you actually spoke at this —
 25 A. Yes.

14

1 Q. — conference. Do you remember that?
 2 A. I believe so, yes, I do.
 3 Q. Do you remember what you spoke about?
 4 A. If — it would have been large-scale testing.
 5 Q. Right. And do you remember attending the whole of the
 6 conference or just your presentation?
 7 A. I believe I only attended my presentation.
 8 Q. Right. Because if we look at Alan Keiller's
 9 presentation, this is at {CWCT0000026/13}, these are
 10 some slides that Alan Keiller gave on behalf of the CWCT
 11 at that point. You can see the final bullet point
 12 reads:
 13 "CWCT and BRE are in process of obtaining
 14 clarification through FAQ section of building
 15 regulations website."
 16 Yes?
 17 A. Yes.
 18 Q. Now, when you attended this conference, did you tell
 19 Mr Keiller that by this point the BRE had decided that
 20 that wasn't an option they were pursuing?
 21 A. No, I hadn't.
 22 Q. So we can see that Mr Keiller's informing all the
 23 members and the attendees of this conference that that's
 24 happening.
 25 A. Yes.

15

1 Q. Did you know that he was telling people at the
 2 conference that this was what was occurring?
 3 A. I don't recall being present for his presentation, so —
 4 Q. Right.
 5 Why didn't you tell him at that point, "Listen,
 6 we've discussed it, it's a more complex piece of work,
 7 we're not going to pursue this FAQ route"? Why didn't
 8 you tell him that?
 9 A. With reflection, I don't know. I think partly I wasn't
 10 actively on the day-to-day working in that area any
 11 longer, so it tended to come back in as a — as
 12 something that I was picking up, and that's why I say
 13 with reflection I should have closed it out far more
 14 effectively than I did.
 15 Q. Did anyone tell you not to tell the CWCT?
 16 A. No. No. I was never instructed. It was merely my lack
 17 of closure.
 18 Q. Right.
 19 Let's go to another email chain, {CWCT0000040}.
 20 There is an email chain here between you and
 21 David Metcalfe, and we look in the first email of the
 22 chain at the very bottom of page 1. It's dated
 23 13 March 2015 now, so we've jumped forward — that was
 24 October 2014, now we're in March 2015 — and he
 25 writes — so it's right at the bottom of that page, so

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1 we need to go on to the top of page 2 {CWCT0000040/2} to
 2 see the email. He says:
 3 "Dear Sarah.
 4 Around September last year Alan Keiller met with you
 5 and a couple of your [colleagues] to discuss some points
 6 that arose from our meeting in July, in particular the
 7 issue around the use of combustible materials in the
 8 facade and the wording of Clause 12.7 of ADB. It was my
 9 understanding that you agreed to draft a note clarifying
 10 the intent of the clause, which was to be sent to us for
 11 discussion. Has any progress been made on this?
 12 "I have a CWCT Board and Technical Committee meeting
 13 on 25th March where I have to report on our activities,
 14 so I would be grateful for a quick response."
 15 Do you see that?
 16 A. Yes, I do.
 17 Q. If we go up to the next email in the chain on page 1
 18 {CWCT0000040/1}, we can see a brief response from you on
 19 the same day, on 13 March, and you say — it's right at
 20 the bottom of that page, do you see that?
 21 A. Mm—hm.
 22 Q. You say:
 23 "Hi David
 24 "Yes, a note has been drafted and revisited — it is
 25 still draft hopefully it will be closed out soon.

17

1 "Kind Regards
 2 "Sarah."
 3 A. Yes.
 4 Q. Now, was that true? Was there a draft in existence that
 5 had been drafted and revisited and that you thought
 6 would be closed out soon?
 7 A. The headline drafts that I'd discussed after that
 8 meeting in July existed as headline notes, and I hoped
 9 that they would move forward in some form, so that there
 10 was something that the CWCT could discuss, yes.
 11 Q. But how is that consistent with what you've told us,
 12 that by August/September 2014 it had been decided within
 13 the BRE that that was not a route you were going to go
 14 down, and you were going to wait instead for the
 15 revisions to Approved Document B?
 16 A. So I had made notes and comments about the points that
 17 were being discussed in that requirement, and I had
 18 hoped that we would circulate that as something that
 19 could form wider discussion for anything that went
 20 forward with the ADB.
 21 Q. I see. Had you discussed that with your colleagues in
 22 the BRE, or was this just a private hope?
 23 A. It was more of a private hope. I hadn't taken it
 24 forward beyond that. It was just my set of notes around
 25 the points that had been raised, what I thought might be

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1 areas that could be picked up and discussed.
 2 Q. Right.
 3 A. But it wasn't a drafted piece of text that could be used
 4 as an FAQ or an ADB.
 5 Q. Right. So help us with this: were you thinking at this
 6 point that you would be drafting an FAQ and putting that
 7 forward to the department for its consideration?
 8 A. I was not thinking we'd be drafting an FAQ, no.
 9 I thought I was drafting up some text that could be used
 10 to assist in the redrafting of the ADB.
 11 Q. Right. Why not tell Mr Metcalfe that?
 12 A. I agree. That email and the following correspondence is
 13 not as clear as it could have been or should have been.
 14 Q. Well, it's wholly misleading, isn't it?
 15 A. With hindsight, yes, it is.
 16 Q. Yes. I mean, yesterday you said that there had been
 17 a lapse on your part in not keeping the CWCT informed of
 18 the thought processes, but this isn't just a lapse, is
 19 it? You've actually drafted an email that suggests that
 20 positive steps are happening, and they would have
 21 reasonably thought that was about the FAQ; yes?
 22 A. Yes, on reflection, that is what they would have
 23 reviewed, yes.
 24 Q. Did you discuss your response to Mr Metcalfe with
 25 anybody else at the BRE before sending it?

19

1 A. No.
 2 Q. Did you talk to Debbie Smith about it?
 3 A. No.
 4 Q. What did you mean when you said "a note has been drafted
 5 and revisited"? What do you mean by that?
 6 A. So I'd put original thoughts down at the time, and I had
 7 revisited those following the various discussions that
 8 were ongoing, and I hoped to send them something that
 9 would be my collected thoughts on the points that they
 10 had raised.
 11 Q. Right, I see. But what they wanted was something that
 12 could be raised with the department so that the
 13 department could clarify this definitively; yes?
 14 A. Yes.
 15 Q. So some notes from you weren't going to take matters any
 16 further forward, were they?
 17 A. No, they wouldn't have.
 18 Q. You also knew from the very outset, thinking back to
 19 Brenda Apted's email, that the CWCT itself was wondering
 20 whether it should be putting out guidance clarifying
 21 this area. Can you see that the effect of what you're
 22 doing here is potentially meaning that they're not
 23 acting in that way because they're waiting for you to do
 24 it?
 25 A. Yes. On reflection, I can see that, yes.

20

1 Q. If we look at the next email up in the chain, we can
 2 see — sorry, no, before we go to that, are you saying
 3 that you were drafting up text for the next review of
 4 ADB, what, without even speaking to Brian Martin about
 5 that?
 6 A. No. I was picking up the points that had been raised in
 7 the CWCT to try to understand what the question they
 8 were asking — to understand what it was that they were
 9 trying to address.
 10 Q. Right. I see.
 11 If we go up the next email, so David Metcalfe, he
 12 says back to you on 13 March:
 13 "Hi Sarah
 14 "Thanks for getting back to me.
 15 "It was my understanding that we would have the
 16 opportunity to comment on the draft. Is that still your
 17 intention? We are still receiving numerous enquiries
 18 from our Members on the subject so it would be useful to
 19 see what is being proposed so that we can give the
 20 correct advice."
 21 So they're absolutely relying on you, aren't they,
 22 to do something so they can go back to their members and
 23 give the correct advice; yes?
 24 A. That's the tone of the email, yes.
 25 Q. Yes.

21

1 Then at the top of the chain, you respond again:
 2 "Hi David
 3 "Yes, we will circulate."
 4 Yes?
 5 A. Yes.
 6 Q. Again, that's wholly misleading, isn't it?
 7 A. That gives the wrong impression based on the response
 8 that he's asked for, yes.
 9 Q. Now, we've heard in oral evidence from David Metcalfe,
 10 and we have the emails, that there was just no response
 11 from you at all thereafter. What we can see is that
 12 David Metcalfe chased for a response in writing from you
 13 on numerous dates: he chased on 18 August 2015, on
 14 14 October 2015, on 2 November 2015, on
 15 10 November 2015. Do you remember receiving these
 16 chasing emails from Mr Metcalfe?
 17 A. I don't recall explicitly the dates when they were
 18 received, but yes, I'm aware that there were chasers
 19 followed.
 20 Q. So what were you thinking when you were getting these
 21 chasing emails and you were not getting back to him?
 22 Why was that, and how were you justifying that to
 23 yourself?
 24 A. At that point, nothing further had moved forward from my
 25 side, and, as I say, on reflection, I should have

22

1 contacted him directly and explained to him what was
 2 going on and I didn't.
 3 Q. Right.
 4 Again, did you talk to anybody else within the BRE
 5 about this? Did you say, "Oh, I'm getting chased by
 6 David Metcalfe, he needs an answer, I can't give him
 7 an answer, what should I do?" Did you ever talk to
 8 anybody else about it?
 9 A. Yes, I would probably have shared it with the team, just
 10 to say, "This is still ongoing". And, as I say, that is
 11 my — on reflection, my biggest failing is not going
 12 back to him and saying, "This is the approach that we
 13 think needs to be taken, it needs to go back to the
 14 department, to the ADB revision".
 15 Q. Right. Do you remember asking Debbie Smith what you
 16 should do about this situation?
 17 A. It would have been discussed — I would have mentioned
 18 it to her, yes.
 19 Q. And, what, no one in the team said, "You had better go
 20 back to him and respond"?
 21 A. I don't recall that, no. I don't recall the
 22 conversation being in that way.
 23 Q. David Metcalfe says he also left you a number of
 24 voicemail messages but you never responded to those
 25 either. Do you remember receiving voicemail messages

23

1 from him?
 2 A. No, I'm not aware of those.
 3 Q. Did you think to find out what advice the CWCT or anyone
 4 else was giving on the interpretation of that paragraph
 5 in that period, in that period where you weren't
 6 responding?
 7 A. No.
 8 Q. Did you think about what the problems might be if they
 9 were carrying on giving advice that these panels could
 10 be used in circumstances where you knew that there were
 11 problems with that?
 12 A. No, I didn't.
 13 Q. And why not? Why was that not something of concern to
 14 you?
 15 A. My role, my understanding, was that these were
 16 discussions that — around interpretation, were not
 17 within that — the scope of my day-to-day activities,
 18 and, as I say, with reflection, looking back, now I can
 19 see that they were relying or looking to us to provide
 20 that information. I was of the view that that
 21 information and that confirmation was — rested with
 22 MHCLG, so it wasn't something that I was confirming what
 23 the wider applications of this guidance in industry was
 24 being used or sought for.
 25 Q. Right. But you don't say that back to the CWCT either,

24

1 do you? You don't say, "Actually, I've reflected on
2 this and we simply can't give this guidance, you must go
3 to the department".
4 A. Insofar as the offer to assist and that back from the
5 original meeting, I thought it was clear that people
6 understood that it was MHCLG who were the route for
7 that. But, as I say, on reflection and on review of
8 these documents and the passage of time, then it is —
9 it would appear that they were not looking at it in that
10 way.
11 Q. Well, it's specifically minuted in the minutes of the
12 meeting that it was you that was tasked with speaking to
13 Brian Martin about this FAQ; yes?
14 A. Yes.
15 Q. Yes.
16 A. And having had that conversation earlier in the year
17 with them, that was my understanding, that that was
18 their position of custodianship of that information and
19 that interpretation.
20 Q. Yes. Were you ever instructed not to respond to the
21 CWCT?
22 A. No.
23 Q. Did you ever discuss with Dr Smith whether you should
24 respond?
25 A. No.

25

1 Q. Do you remember her being aware, though, that you were
2 being chased?
3 A. Yes, she was aware.
4 Q. And what did she say when you spoke to her about it?
5 A. That was the discussions, that the scope of what was
6 being asked for was such that it really needed to sit
7 within the revision of the AD and not as an FAQ.
8 Q. Right. So she didn't give you any advice about how to
9 handle the message back to the CWCT?
10 A. No.
11 MS GRANGE: Now, we know that —
12 SIR MARTIN MOORE—BICK: Are we going away from these emails
13 for the moment?
14 MS GRANGE: Yes, probably. Yes.
15 SIR MARTIN MOORE—BICK: Because I feel that there is a point
16 here that ought to be raised so that Dr Colwell can deal
17 with it.
18 Dr Colwell, one view of this succession of emails
19 that we've been seeing, one possible view, is that you
20 were deliberately stringing Mr Metcalfe along —
21 A. I appreciate that.
22 SIR MARTIN MOORE—BICK: — for as long as you could, and
23 then you got to the point when you simply ignored him.
24 What would you say about that?
25 A. No, I can fully — following that chain, I can fully

26

1 agree that that is a course that could be taken forward,
2 and that was not my intention, no. But I fully accept
3 that, on reflection, I should have closed this down much
4 earlier and much more effectively.
5 SIR MARTIN MOORE—BICK: Yes. All right, thank you.
6 MS GRANGE: Was there any sense in which you were influenced
7 by Dr Smith's reaction previously to the work that the
8 CWCT were proposing to do in this area? You remember we
9 looked at her email which said, "We don't want the
10 fire safety mantle passing to the CWCT". Did that in
11 any way influence you in terms of not wanting to give
12 them a definitive answer so that they could take the
13 initiative?
14 A. No, I don't believe that was the case.
15 Q. When you say, "I don't believe that was the case", why?
16 A. I worked on developing and understanding based — for
17 the questions that they had raised in that meeting and
18 how that might best be clarified and moved out, so I had
19 continued to work on that.
20 Q. I see.
21 Just to be clear, who made the final decision within
22 the BRE that no FAQ route was going to be pursued? Was
23 that Dr Smith?
24 A. I believe that came as a conversation between Dr Smith
25 and myself, yes.

27

1 Q. Right. But she is the senior; yes?
2 A. Yes.
3 Q. Did she take that final decision, that the FAQ route was
4 not one you were going to go down?
5 A. It was agreed between us, so, yes, in that sense, yes.
6 Q. Right.
7 Now, you also had a meeting with the NHBC in
8 November 2014. I just want to look briefly at that.
9 On 27 November 2014, you, together with
10 Steve Manchester and Stephen Howard, met with
11 John Lewis, Steve Evans, Graham Perrior and Dave White
12 from the NHBC at the BRE in Watford. Do you remember
13 that meeting?
14 A. Yes.
15 Q. John Lewis has made some notes of that meeting. They're
16 at {NHB00000829/2}, there we have them. So perhaps we
17 could just go back up and orientate ourselves. This is
18 John Lewis' summary of some meetings that he sent to
19 Steve Evans, so it's an internal summary by NHBC.
20 If we go back to page 2, we can see a list of those
21 present: you're present, Steve Manchester, Steve Howard,
22 and then NHBC people.
23 Then we can see at bullet points 1, and it goes over
24 to the next page, you and Stephen Howard explain various
25 matters to the NHBC in relation to BS 8414 and

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1 classification to BR 135. Do you remember that?
 2 A. Yes.
 3 Q. I want to just ask you a couple of points about this.
 4 Bullet point 6 on that page, we can see it says:
 5 "SC [Sarah Colwell] stated that, with regards to
 6 mechanical performance, the key criteria are rate of
 7 fire spread and ongoing burning."
 8 Do you see that?
 9 A. Yes.
 10 Q. Is that an accurate record of what you said?
 11 A. I'm sorry, I couldn't reflect from 2014 as to whether
 12 that was what was stated.
 13 Q. Well, tell us this: is that your view, that when you're
 14 looking at mechanical performance of these large-scale
 15 systems, the key criteria are rate of fire spread and
 16 ongoing burning?
 17 A. No.
 18 Q. I see. So you don't remember saying that, or don't
 19 think you would have said that?
 20 A. I think the sentence is actually, "The key criteria in
 21 determining performance are mechanical performance, rate
 22 of fire spread and ongoing burning".
 23 Q. Right, I see, okay.
 24 Let's go to point 9a in the notes, which are on
 25 page 3 {NHB00000829/3}. We can see it says this:

29

1 "9. [Sarah Colwell] clarified the following:
 2 "a. The wording of paragraph 12.7 of AD B2 includes
 3 all major components of a cladding system including the
 4 external finish."
 5 Do you see that?
 6 A. Yes.
 7 Q. Now, is that correct? Did you give that clarification?
 8 A. If I was asked my opinion, then, as I've said
 9 previously, my opinion of 12.7 was that it included the
 10 elements of the external wall construction.
 11 Q. Well, the phrase that's used here is "including the
 12 external finish", and we were interested in that. Did
 13 you use the word "finish"?
 14 A. Again, I apologise, this is a meeting — a set of notes
 15 from a meeting in 2014, I can't recollect the fine
 16 detail of that, and that would not be my interpretation
 17 of that, as we've discussed over the last few days.
 18 Q. Yes.
 19 A. I believed the final finish was as per diagram 40.
 20 Q. Yes. Well, that's what I was going to put to you. You
 21 were saying yesterday that you thought everything had to
 22 be limited combustibility but the finish, but the
 23 coating, but the paint. But this wording here, as
 24 recorded in these notes, does give a different
 25 impression; yes?

30

1 A. Yes.
 2 Q. But you can't help us with how that came to be and you
 3 have no recollection of that meeting; no?
 4 A. I have no recollection of the detail of that — to that
 5 level of that meeting, no.
 6 Q. Yes. But we can agree, I think, that you were providing
 7 this clarification of paragraph 12.7 to the NHBC in this
 8 meeting; yes?
 9 A. If I was asked for my opinion of that, then that would
 10 have been what I would have said.
 11 Q. Yes. You weren't saying, "Only the department can tell
 12 you what it means", you were giving a view on it; yes?
 13 A. I would imagine, given the way that the meetings would
 14 have taken place, it would have been, "Well, what is
 15 your view", and that would have been, "Well, my view
 16 is ..."
 17 Q. Yes.
 18 A. It would not have been the department's view because the
 19 department are the only people that can give that view.
 20 That would have been my view.
 21 Q. No, I appreciate that, but clearly the NHBC thought it
 22 was something important that they wanted to do to come
 23 and speak to you and Stephen Howard and others to get
 24 clarification on these points; yes?
 25 A. The objective of the meeting was to discuss the testing

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1 to 8414 and BR 135. If that had come up as part of the
 2 conversation, which it looks as though a number of
 3 points were, then that is how that was reported back.
 4 Q. Right.
 5 Then if we look at the heading under the summary,
 6 there is a heading "Action following the meeting" that's
 7 underlined, and if we look at the second paragraph
 8 there, it says:
 9 "NHBC followed up its meeting with BRE with an email
 10 (copy enclosed with this email) to Dr Sarah Colwell
 11 clarifying what it feels is its position from a BC
 12 [building control] point of view. NHBC has drafted a
 13 revision to the 'BCA Guidance Note — Use of Combustible
 14 Cladding Materials on Residential Buildings' and
 15 requested SC to advise of any inaccuracies. A response
 16 to this email is currently awaited."
 17 Do you see that?
 18 A. Yes.
 19 Q. Now, that's a reference — well, we're pretty
 20 confident — to BCO Technical Guidance Note 18, which
 21 I just want to ask you about now.
 22 In your witness statement — I don't think we need
 23 to turn it up — at page 69 {BRE00047571/69},
 24 paragraph 446, you said that you weren't aware of the
 25 publication at the time and only became aware of it in

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1 late 2015.
 2 Now, this is a meeting in November 2014. Do you
 3 agree that it looks like you would have become aware of
 4 that guidance earlier than that?
 5 A. I believe that I became aware of the final published
 6 version in 2015, not — I'm not aware of the — of when
 7 that document was published, no.
 8 Q. Right, I see.
 9 If we go to {NHB00003198}, we can see there's a long
 10 email from John Lewis to you on 4 December 2014. It's
 11 a long email, as I say, and I'm not going to go through
 12 all the detail of it, but can you recall receiving this
 13 email from John Lewis?
 14 A. If it was sent to me, then, yes, I would have received
 15 it.
 16 Q. Right. And would you have read it if you'd received it
 17 from John Lewis?
 18 A. I would have looked at it in relation to commenting on
 19 8414 and 501. I wouldn't have offered any comment or
 20 opinion back on the approved document elements of it.
 21 Q. Right.
 22 So the section I wanted to ask you about first was
 23 in the second paragraph, there is a heading "Approved
 24 Document B" in bold, and if we pick it up in the
 25 second—to—last line of that paragraph, you can see in

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1 the middle of the line it says:
 2 "We understand that for external walls over 18m in
 3 height ADB Section 12 gives guidance on two acceptable
 4 methods of assessing the envelope design and
 5 construction:
 6 " ■ External surfaces should comply with Diagram 40
 7 in paragraphs 12.6 to 12.9.
 8 " ■ All insulation and filler materials should be
 9 class A2—s3, d2 or better.
 10 " ■ All cavity barriers and fire stopping guidance
 11 needs to be followed."
 12 Do you see that?
 13 A. Yes, I do.
 14 Q. So they're setting out their understanding of the
 15 requirements of ADB.
 16 Now, it doesn't appear that John Lewis had
 17 understood your view, which was that the external
 18 surfaces should also comply with 12.7 and needed to be
 19 of limited combustibility, does it?
 20 A. No, it wouldn't appear to be so.
 21 Q. No. Did you go back and correct him?
 22 A. No.
 23 Q. Why not?
 24 A. Because I didn't go back and comment on text associated
 25 with the approved document.

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1 Q. But why not go back and say, "Well, there is some debate
 2 within the industry about this, there is some
 3 consternation, we know it needs clarifying"? Why not at
 4 least fill him in about what had been going on with
 5 clause 12.7, so that at least they're in the picture
 6 about that?
 7 A. I didn't.
 8 Q. Right.
 9 If we go to page 2 of this email {NHB00003198/2},
 10 and the third paragraph down, in bold, he asks another
 11 question. I'm not going to read it all out, but
 12 basically he says: when reading the classification
 13 report, do we treat all of these three criteria — and
 14 you can see he means external fire spread, internal
 15 fire spread and mechanical performance — with equal
 16 importance, or can the system be considered to achieve
 17 a pass if certain criteria have been satisfied?
 18 Now, we can't see you ever responding to questions
 19 like this. Did you ever respond?
 20 A. I don't believe I responded to that email, no.
 21 Q. Again, why not?
 22 (Pause)
 23 A. In a lot of these cases we were not getting involved in
 24 writing industry — the industry guidance around these
 25 points, and the timelines to go through these was

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1 probably missed in this particular case.
 2 Q. Okay.
 3 If we go to the third paragraph from the bottom of
 4 this email, we can see — so it's the paragraph above
 5 the one in bold with a 2 — there is a paragraph that
 6 reads:
 7 "To this end, the Building Control Alliance (a body
 8 set with membership of both public sector and private
 9 sector Building Control professionals) has updated its
 10 guidance document [then he gives the name] ... to
 11 incorporate guidance on this aspect of BR 135."
 12 Yes?
 13 A. Yes.
 14 Q. In the next paragraph, we can see that he requests your
 15 comments on the document. If you look towards the end
 16 of that paragraph, we can see he says:
 17 "... and, whilst we would welcome your comments on
 18 all of the document, these are the paragraphs on which
 19 we would most appreciate your feedback."
 20 Do you see that?
 21 A. Yes.
 22 Q. We will see in a moment he sends you a draft of the BCA
 23 technical guidance note and asks you for comments.
 24 Now, do you remember reading that draft note at the
 25 time?

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1 A. No.
 2 Q. Why wouldn't you have read that and looked at what the
 3 NHBC was saying about these kind of topics?
 4 (Pause)
 5 A. There were a number — numbers of industry guidance
 6 documents being discussed, and to go through and review
 7 and comment on all was not something that we did.
 8 MS GRANGE: Right.
 9 SIR MARTIN MOORE—BICK: I mean, was the BRE concerned about
 10 appearing to lend its weight or authority to some of
 11 these industry documents? I find it puzzling that
 12 you —
 13 A. To some extent, yes, that we couldn't — to be
 14 independent to all and to support the numbers, it was
 15 a balance at times as to what — where we put the
 16 resource and which areas we were able to help with.
 17 SIR MARTIN MOORE—BICK: All right. Thank you.
 18 MS GRANGE: Yes.
 19 We don't need to go to it, but we know that
 20 John Lewis emailed you again on 10 December 2013 chasing
 21 for a response to this email, and it appears that you
 22 never responded. Is that right, there was just never
 23 any response to this or the chaser email?
 24 A. If there's no record, then yeah, that would be correct.
 25 Q. Right.

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1 I just want to look briefly at the draft of the
 2 guidance note he sends you. It's at {NHB00003199}. So
 3 here we can see we've got a draft of a BCA technical
 4 guidance note. We can tell it's a draft because various
 5 things at the top haven't been completed.
 6 If you look at the box "Guidance", just below
 7 halfway down the page, there is a section that deals
 8 with buildings below 18 metres, and then there is
 9 a heading, the second heading that's underlined:
 10 "Combustibility of Cladding Components in Buildings
 11 exceeding 18m in Height."
 12 We can see it reads:
 13 "Where the building exceeds 18m in height,
 14 paragraph 12.7 of AD B2 refers to the need for limited
 15 combustibility of all elements of a cladding system both
 16 above and below 18m."
 17 Do you see that?
 18 A. Yes.
 19 Q. We know that in the final versions of this guidance that
 20 became what was called option 1. I don't know if you
 21 ever remember reading that. Option 1 was that all
 22 elements of the cladding system needed to be limited
 23 combustibility.
 24 Now, what I want to ask you is: that's a pretty
 25 simple piece of guidance, isn't it, to give? Why

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1 couldn't the BRE work towards, you know, putting that in
 2 an FAQ, or putting that out there more generally, or
 3 proposing that to the department? This didn't need to
 4 be very complicated, did it?
 5 A. As I say, I'm reading this document as you're presenting
 6 it to me, so I wouldn't want to comment more widely than
 7 whether that's addressing the scope or not.
 8 Q. I see.
 9 Let's move forward in time, then.
 10 There was a second CWCT fire group meeting held on
 11 17 March 2016. Let's turn up the minutes of that
 12 meeting. They're at {CLG00019440}.
 13 We can see on page 1 that you attended, you're the
 14 fifth name down in those present, as did Brian Martin,
 15 Stuart Taylor of Wintech, David White from the NHBC,
 16 Alan Keiller and David Metcalfe of the CWCT and various
 17 others, including representatives from Kingspan and
 18 Siderise.
 19 If we go to page 2 {CLG00019440/2}, towards the
 20 bottom of the page, there is a section headed
 21 "Combustibility of material", and we can see that reads:
 22 "Approved Document B (Clause 12.7) requires
 23 insulation and filler material in the external walls of
 24 tall buildings to be of limited combustibility. BCA
 25 Guidance Note 18 extends this requirement to all

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1 material in the wall."
 2 Do you see that?
 3 A. Yes.
 4 Q. Now, by this point, March 2016, had you read BCA
 5 Technical Guidance Note 18?
 6 A. I can't remember the dates by which — of which that
 7 would have been read.
 8 Q. Right. We know there were two versions of that
 9 technical guidance note: version 0 that came out in
 10 June 2014, and version 1 that came out in June 2015. So
 11 it had been out for some time prior to this meeting on
 12 17 March 2016. Do you remember being familiar with the
 13 content of it?
 14 A. No, I don't remember being familiar with the content of
 15 them.
 16 Q. Right.
 17 You were asked in your witness statement whether you
 18 agreed that the BCA technical guidance note extended the
 19 requirement to all material in the wall, and your
 20 response was that you'd simply not considered that point
 21 at the time and thereafter had no particular view. Does
 22 that remain your evidence?
 23 A. Yes.
 24 Q. I see. So you never formed a view about whether or not
 25 the wording used in BCA Technical Guidance Note 18

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1 extended the requirement to all materials in the wall?
 2 A. No.
 3 Q. I see. It just seems a little odd that you hadn't
 4 formed a view of that at the time, given we know you had
 5 been receiving enquiries about the meaning and scope of
 6 clause 12.7 since at least 2013, and we know you'd met
 7 with NHBC, with Wintech and the CWCT on that subject.
 8 You'd tried to start drafting some outlines that might
 9 address this, amongst other points. It seems very odd
 10 that that quite key piece of guidance wasn't something
 11 that came to your attention. Can you explain that?
 12 A. I didn't — I viewed it as a piece of industry guidance.
 13 I didn't take it as a particular reference point.
 14 Q. Okay.
 15 Looking again at the minutes, below that there is
 16 a paragraph that reads:
 17 "It was accepted that Clause 12.7 was poorly written
 18 and open to interpretation. The title of the clause is
 19 also misleading ('Insulation Materials/Products'), and
 20 this will be changed in the next revision of ADB."
 21 Do you see that?
 22 A. Yes.
 23 Q. Over at the top of page 3 {CLG00019440/3}, it says:
 24 "The term 'filler material' was intended to be
 25 a 'catch—all' as it was not possible to list all the

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1 materials that should be covered by the clause. In
 2 addition, there were people arguing that certain
 3 materials used in a façade build up (such as expanded
 4 polystyrene in some instances) were not there for their
 5 insulating properties, but to 'pad out' the façade, and
 6 were therefore excluded from the clause."
 7 Do you see that?
 8 A. Yes.
 9 Q. Now, in your witness statement, you tell us that you
 10 can't recall who it was that accepted that 12.7 was
 11 poorly written and open to interpretation, or that the
 12 title of the clause was misleading, and that you can't
 13 recall whether or not Brian Martin accepted those
 14 matters. Is that still the case, that you can't recall
 15 who said those things?
 16 A. I don't have direct recollection of who made those
 17 particular statements, no.
 18 Q. Right, and you can't recall who it was that stated that
 19 "filler material" was intended to be a catch—all?
 20 A. I would have envisaged that was Brian.
 21 Q. Right. Yes. I mean, in 2016, he was the department's
 22 principal construction professional with responsibility
 23 for ADB. He owned the document, didn't he?
 24 A. Yes.
 25 Q. Can you think of anybody else at that meeting that would

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1 have accepted the matters that we saw accepted there
 2 about the lack of clarity or had provided information
 3 here about the background to the term "filler material"?
 4 A. My expectation is that that would have been Brian
 5 speaking to that point.
 6 Q. Right.
 7 Did you understand that explanation being given at
 8 the meeting for the use of the term "filler material",
 9 that it was intended to be a catch—all as it was not
 10 possible to list all the materials that should be
 11 covered by the clause?
 12 A. Yes.
 13 Q. Did you consider that perhaps the words "all materials"
 14 might have been a better phrase as a catch—all, if
 15 that's what was being proposed?
 16 A. Yeah, it was by that stage accepted that there was
 17 a need for a review of what that wording looked like.
 18 Q. Right.
 19 Did you think back to the drafting of paragraph 12.7
 20 in 2005, when Brian Martin had circulated a draft text
 21 which proposed exactly that, the use of the phrase "all
 22 materials" as opposed to using the word "filler"? Did
 23 you think back to that during this meeting?
 24 A. No.
 25 Q. Right.

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1 Now, if we just turn briefly to Brian Martin's
 2 witness statement, {CLG00019469/49}, at paragraph 138,
 3 in the last two lines of 138, we can see that
 4 Brian Martin is saying there that:
 5 "... I undertook to change this misleading clause in
 6 the next revision of ADB."
 7 Do you see that there?
 8 A. Sorry, would it be possible to expand that slightly?
 9 Q. Yes. So bottom of the page. We're looking at
 10 paragraph 138. Before the text that's in italics, we
 11 can see, if we pick it up four lines up, he says:
 12 "Indeed at the meeting it was accepted, as is
 13 recorded, that paragraph 12.7 of ADB was open to
 14 interpretation. Acting on behalf of the Department
 15 I undertook to change this misleading clause in the next
 16 revision of ADB."
 17 Yes?
 18 A. Yes.
 19 Q. So did you agree with him at that point that the clause
 20 was misleading?
 21 A. Yes.
 22 Q. You say in your witness statement — I don't think we
 23 need to go to it, paragraph 656 on page 97
 24 {BRE00047571/97} — that it was apparent to you at this
 25 meeting that a clearer definition of the term "filler"

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1 was being sought, but there wasn't any definition of
 2 " filler ", was there, in circulation at this point?
 3 A. No.
 4 Q. Did it occur to you at this stage — so we're in early
 5 2016 — that something might need to be done to clarify
 6 the meaning and scope of paragraphs 12.6 and 12.7 more
 7 urgently than just the next revision of Approved
 8 Document B?
 9 A. I think, given that the department had accepted the
 10 undertaking to move that forward, they were party to
 11 the — to that urgency and therefore were going — would
 12 move it forward.
 13 Q. Did you understand the department and, in particular,
 14 Brian Martin to consider the matter to be one of some
 15 urgency?
 16 A. By that stage I believe they did, because it had been in
 17 the debating point for some time by that stage, so
 18 I felt they understood the need to do this with some
 19 degree of urgency, yes.
 20 Q. But just thinking back to the chronology, you'd met with
 21 Brian Martin, we know, in January 2014, when you'd
 22 raised these issues with him and he said he was going to
 23 take it further. We're now two years on from that, over
 24 two years on. What gave you the impression they were
 25 going to do anything as a matter of any urgency, given

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1 they'd not taken any action in those two years?
 2 A. The sense from the — from that particular meeting,
 3 I've — and the undertaking to move that forward,
 4 I thought by that stage would be their driver.
 5 Q. Was there anything Brian Martin did or said at this time
 6 which led you to believe that he did consider the matter
 7 to be urgent?
 8 A. I think his acceptance that there was this need for
 9 change was, yeah, sort of the route map for making that
 10 change happen.
 11 Q. Right, and did you consider it to be urgent?
 12 A. I believe by that point that it was one of the key
 13 things that needed to be changed in the revision, yes.
 14 Q. But did you consider it to be urgent? Not just a key
 15 change that needed to happen in a revision in the
 16 future, did you consider it to be urgent?
 17 A. Yes, it needed to be changed.
 18 Q. And changed quickly; yes?
 19 A. Yeah, and — yeah, it needed to happen, yes.
 20 Q. Was there any discussion at this point about the FAQ
 21 route again? Did anybody say, "Well, there's the FAQ
 22 route, we could think about that again"? Did that get
 23 discussed again in 2016?
 24 A. No, I believe it didn't. I believe it ceased to have
 25 discussion.

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1 Q. Right.
 2 Now, by this time, so March 2016, were you aware of
 3 the fires at The Torch residential building in Dubai in
 4 February 2015 and at The Address Downtown Hotel in
 5 December 2015?
 6 A. Yes.
 7 Q. So two really significant fires had occurred in the UAE
 8 in this period; yes?
 9 A. Yes.
 10 Q. Did you know that those involved ACM PE?
 11 A. Yes.
 12 Q. In March 2016, were you still engaged in any work in the
 13 UAE in relation to their regulatory codes or anything to
 14 do with external fire spread?
 15 A. I can't recall exact dates as I sit here now, but yes,
 16 I would have been aware of that.
 17 Q. Right.
 18 Let's look at an email at {BRE00047591/2}. There is
 19 an email sent on 3 January 2016 to Pavlos Vatavalis of
 20 European Aluminium, and in paragraph 2, it's the one at
 21 the bottom of that page, you say:
 22 "Apologies but I cannot make any of the suggested
 23 meeting dates as I will be in the Middle East in January
 24 and on leave in February."
 25 Do you see that?

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1 A. Yes.
 2 Q. Does that help you as to whether you were still working
 3 in the Middle East on this topic in January 2016?
 4 A. I don't believe I would have been — that January
 5 meeting would have been in relation to the large
 6 international exhibition that happens at that time.
 7 Q. Right. But when you went out to the Middle East, did
 8 you discuss these ACM PE cladding fires with anybody
 9 during your trip?
 10 A. I don't — no, I don't believe the latter ones were
 11 subjects to discussion with any of the authorities out
 12 there at that time.
 13 Q. Yes. And you were aware, weren't you, of the fire at
 14 the Ajman Towers in Dubai on 28 March 2016, less than
 15 two weeks after this meeting of the CWCT fire group?
 16 A. I'm sorry, I don't recall the specific building, but,
 17 yeah, those types of fires were reported.
 18 Q. Let's look at an email to help you, {CLG10008111}. Here
 19 is a discussion about that fire between Martin Shipp,
 20 David Crowder, Ciara Holland and Brian Martin. Now,
 21 you're not copied in to these emails, but if we look at
 22 the top email in the chain, Martin Shipp writes to the
 23 others on 29 March 2016, he says:
 24 "I know [smiley face]."
 25 We can see it's about the "Ajman fire: Huge blaze

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1 hits UAE residential towers".
 2 Then in the second line he says:
 3 "Sarah thinks it's burning debris landing on
 4 balconies."
 5 Do you see that?
 6 A. Yes.
 7 Q. So it would appear that you were aware of that fire at
 8 the time. Did you know that that involved ACM PE?
 9 A. Yes.
 10 Q. What about the fire at the Sulafa Tower, a 75-storey
 11 block in Dubai Marina in July 2016, were you aware of
 12 that fire?
 13 A. As I say, I apologise if I don't recognise them by
 14 building name.
 15 Q. Did any of these cladding fires, these further fires,
 16 alert you to the need to provide clearer guidance to
 17 industry on this topic as a matter of some urgency?
 18 A. As I say, I hadn't made the connection at that time of
 19 the extent to which ACM was being used in the UK market.
 20 Q. Right.
 21 You tell us in your witness statement — this is
 22 page 104 {BRE00047571/104}, paragraph 709 — and you're
 23 being asked about this in the context of what was going
 24 on in 2016, you were asked when you understood that the
 25 next revision of the approved document was to take

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1 place, and you said you understood it would take place
 2 imminently. What was it that had given you the
 3 impression that the next review of ADB was imminent in
 4 2016?
 5 A. Brian's response to that meeting with CWCT.
 6 Q. Right. What was it about his response which led you to
 7 believe that it was imminent?
 8 A. My impression at that time was that it was about to take
 9 place, it was about to be announced, it was about to be
 10 undertaken.
 11 Q. Right. Were you aware that no consultation process had
 12 begun by March 2016?
 13 A. I was aware it hadn't been launched, no.
 14 Q. A revised approved document could have been, in reality,
 15 many years away; did you appreciate that at the time?
 16 A. I understood that was a possibility, yes.
 17 Q. Let's look at some other emails, and these are emails
 18 from January 2016.
 19 If we can go to {BLM00000153}, this is an email
 20 chain between you and Nick Jenkins, at the time of
 21 Booth Muirie, in January and February 2016.
 22 I want to start with the bottom email in the chain,
 23 which is in the middle of page 3 {BLM00000153/3}. It's
 24 an email sent to you by Nick Jenkins on 20 January 2016,
 25 and we can see the subject is:

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1 "Use of ACM Cladding Panels on Buildings Exceeding
 2 18m in Height."
 3 He says:
 4 "I hope this finds you well? We haven't met however
 5 I understand that you might be the best person to help
 6 me with some clarification I'm seeking in relation to my
 7 understanding of the current UK regulations as they
 8 apply to wall constructions for buildings over 18m
 9 featuring rainscreen panels formed from ACMs?
 10 "Last week I attended a Siderise/BRE facades
 11 conference on the topic of fire safety. During the day
 12 I asked some questions of the panel relating to the
 13 permissible use of rainscreen cladding panels formed
 14 from various grades of ACM (aluminium composite
 15 materials) when used as part of multi layered wall
 16 systems for buildings over 18m. There was some ambiguity
 17 in the answers provided by the panel."
 18 Then he goes on and explains why he thinks there is
 19 some ambiguity, and he gives quite a detailed
 20 explanation of the problems with the guidance and the
 21 different interpretations of it.
 22 Now, just pausing there for a minute, did you attend
 23 that Siderise/BRE facades conference on 16 January 2016?
 24 A. No.
 25 Q. I think we know your colleague Stephen Howard did

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1 attend. We've seen a video of him on the stage at that
 2 conference when Nick Jenkins was asking a key question
 3 about this.
 4 Did Stephen Howard come back to you after that
 5 conference and tell you about the concerns Nick Jenkins
 6 had raised?
 7 A. No.
 8 Q. So you didn't get any feedback from Stephen Howard after
 9 that conference?
 10 A. I'm not aware of having a conversation about that from
 11 that conference, no.
 12 Q. Right.
 13 I'm not going to read all the detail of his
 14 explanation of the guidance, et cetera, but I want to
 15 pick it up just two paragraphs before the end of this
 16 page. There's a paragraph beginning:
 17 "In our experience ..."
 18 It's about six lines up in that last very meaty
 19 part, and he says this:
 20 "ACM rainscreen panels to specialist cladding
 21 contractors in the UK market we are rarely asked to
 22 provide such A2 rated ACM materials. The vast majority
 23 of ACM panels we are asked to provide for architectural
 24 application are either Alucobond plus, ALPOLIC/fr, or
 25 Larson fr products all of which are classified as

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1 B—s1, d0 in accordance with BS EN 13501—1:2007 and thus
 2 whilst they can be classified as products that are hard
 3 to burn are not accepted as being of limited
 4 combustibility in accordance with Table A7, Appendix A
 5 of AD B2.
 6 "In many instances it is not even the B—s1, d0 rated
 7 ACM panels we are asked to supply but standard
 8 polyethylene core material ACM that burns quite
 9 efficiently. What's more I'm aware of many tall
 10 residential buildings recently constructed in the UK
 11 where such panels are installed in combination with
 12 various foil faced rigid foam thermal insulation boards
 13 which are also not accepted by as [sic] being of limited
 14 combustibility in accordance with Table A7, Appendix A
 15 of AD B2."
 16 Then over the page {BLM00000153/4}, he says at the
 17 top paragraph:
 18 "As a responsible supplier Booth Muir/Euroclad
 19 would like to put a guidance note out to the market
 20 written specifically on routes to compliance in relation
 21 to the use of ACM rainscreen cladding panels and
 22 associated thermal insulation products used as part of
 23 multi layered built-up wall systems. Before we publish
 24 any such guidance we are ensuring that we have our facts
 25 straight. With that in mind I would very much

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1 appreciated your thoughts on my understanding of the
 2 current regulations.
 3 "I look forward to hearing back from you."
 4 Now, do you remember receiving this email?
 5 A. Yes, it's obviously come to me.
 6 Q. Did you read it when you received it?
 7 A. I imagine I — yes, I would have read it.
 8 Q. Let's go back a page to the bottom of page 3
 9 {BLM00000153/3}, where we can see that last paragraph.
 10 What was your reaction to the news that standard
 11 PE—cored ACM panels with a polyethylene core had been
 12 used and were being supplied for use on many tall
 13 residential buildings recently? What was your reaction
 14 to that news?
 15 A. Surprised.
 16 Q. Now, given your knowledge about the dangers of this
 17 product dating all the way back to 2001, and your more
 18 recent work in the Middle East, surely your reaction was
 19 one of horror at this point; yes?
 20 A. As I say, I was surprised, yes.
 21 Q. Wasn't this a red alert situation that required urgent
 22 action on your part, on the BRE's part?
 23 A. As a result of it, referred it to the department, yes.
 24 Q. What do you mean by that?
 25 A. That email was referred on to MHCLG to follow up.

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1 Q. And in what terms did you forward it on?
 2 A. Forwarded it on to — or responded to Nick saying, "You
 3 need to talk to the department about this".
 4 Q. Yes. Well, we'll come to that in a moment. But help me
 5 with this: forget the department for a moment, didn't
 6 you and the BRE think at this point, "Wow, we need to do
 7 something urgently, this is a very serious situation"?
 8 A. And referring it to the department, as I've said, who
 9 had the position to take action more widely, was my
 10 route with that.
 11 Q. Why didn't you encourage Nick Jenkins to produce the
 12 guidance that he was referring to?
 13 A. Because I wanted him to engage with the department,
 14 that's why I said, "You need to talk to the department".
 15 Q. Did you speak to Brian Martin, did you pick up the phone
 16 to Brian Martin, who you knew well, and press him to do
 17 something?
 18 A. At that point, no, I forwarded that — I forwarded Nick
 19 to Brian in the assumption that the two would then work
 20 together to address that. It was my understanding and
 21 has been that the department would take that message
 22 forward and action if and as required.
 23 Q. Did you consider whether the BRE itself ought to put out
 24 a statement to industry alerting industry to the dangers
 25 associated with this product and the concerns that the

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1 BRE had about using it on tall residential buildings?
 2 A. No, I didn't.
 3 Q. Why not?
 4 A. It was not a route that BRE had taken in those
 5 circumstances. We referred it to the department.
 6 Q. Why don't we see presentations by the BRE, articles by
 7 the BRE? We know, for example, that David Crowder went
 8 out and he gave lots of presentations about the
 9 Lakanal House fire to many different local authorities.
 10 Why don't we see anything from the BRE about the dangers
 11 associated with ACM PE, particularly from this point
 12 onwards, once — you know for sure at this point that it
 13 is being used on tall buildings. Why don't we see that?
 14 A. We spoke where we were invited to speak. Those were the
 15 type of industry environments we spoke in.
 16 Q. But did anyone give any consideration to whether you
 17 ought to start producing guidance, presentations, to
 18 industry as part of your ongoing work, attending
 19 conferences, et cetera, alerting people to the dangers
 20 posed by these ACM polyethylene panels, particularly
 21 given your experience of these Middle East fires?
 22 A. No, it was not a role I'd ever been involved in
 23 previously, so it wasn't something I was ... would have
 24 thought to participate in.
 25 Q. So this email is dated 20 January 2016. There is no

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1 reply from you, because if we move to the next email up
 2 in the chain, about halfway down page 2 {BLM00000153/2},
 3 we can see that Nick Jenkins sends a chaser email on
 4 1 February 2016.
 5 A. Yes.
 6 Q. So he says:
 7 "Hi Sarah,
 8 "Regarding my email ... I received an auto reply at
 9 that time from which I understand you returned to the
 10 office last Tuesday. Could you please acknowledge
 11 receipt of my query and advise when I could expect to
 12 receive a response from the BRE on the matter."
 13 Do you see that?
 14 A. Yes, I do.
 15 Q. He chases you again on 9 February. If we go to the top
 16 of page 2, we can see on 9 February 2016 he chases you
 17 again:
 18 "Hi Sarah,
 19 "Could you please advise when you expect to be able
 20 to review my query issued on 20th Jan? Apologies if you
 21 are not the right person in the BRE to be dealing with
 22 this."
 23 A. Yes.
 24 Q. Then at the bottom of page 1 {BLM00000153/1}, we can see
 25 you do reply on 9 February 2016. If we go to the bottom

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1 of page 1, we can see right at the bottom you say to
 2 him, copying in Stephen Howard:
 3 "Hi Nick,
 4 "Apologies for not replying sooner, I had missed
 5 your previous correspondence. I will follow [sic] try
 6 and look at it this week and come back to you."
 7 Do you see that?
 8 A. Yes.
 9 Q. You copy Stephen Howard in to that email. Had you
 10 discussed this correspondence with him by this time?
 11 A. Because of Stephen's role in this, in the passive group,
 12 at that point I copied him in so he was aware of the
 13 correspondence.
 14 Q. Yes. Given the terms of Nick Jenkins' email, why do you
 15 need to be chased to get back to him?
 16 A. I'd been out of the office, as said, I came back in,
 17 working through my emails and picked that email up. His
 18 chaser came in around the time that I'm working through
 19 emails.
 20 Q. If we go up to the next email in the chain, we can see
 21 that you write on 12 February 2016:
 22 "Dear Nick
 23 "Further to my earlier email.
 24 "We have now had a chance to look at your email and
 25 I would suggest that you contact Brian Martin at DCLG

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1 [you give his email address] ... with regard to this
 2 request as they are the body with responsibility for
 3 this document and therefore any interpretations
 4 associated with it."
 5 Do you see that?
 6 A. Yes.
 7 Q. So that was your response to Nick Jenkins, wasn't it?
 8 A. That's correct.
 9 Q. Just simply to refer to the department, nothing else?
 10 A. No, that's correct.
 11 Q. Then if we look at the email at the very top of page 1,
 12 we can see an internal email in which Phil Cook, having
 13 been informed by Nick Jenkins that you have referred to
 14 the matter, writes this:
 15 "Nick
 16 "What a buck passing load of incompetents.
 17 "OK.
 18 "So we go through the DCLG.
 19 "Would you contact them for a response??
 20 "Phil."
 21 Do you see that?
 22 A. Yes.
 23 Q. Do you disagree with that description, given what we've
 24 just seen?
 25 A. Given that MHCLG needed to be made aware of it and were

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1 the people able to provide the definitive guidance he
 2 was seeking, then that was the department with the
 3 appropriate people to address it. I'm not quite sure
 4 why he felt that we would speak on behalf of DCLG.
 5 Q. So I think it sounds like you don't agree with that
 6 description of the BRE's conduct at this point?
 7 A. No.
 8 Q. In your email you said, "We have now had a chance to
 9 look at your email". Can you help us with this: who
 10 within the BRE had seen Nick Jenkins' correspondence?
 11 Was that just Stephen Howard or anybody else?
 12 A. It would have been Steve.
 13 Q. And what about Dr Smith?
 14 A. I don't know whether she was aware of it, no.
 15 MS GRANGE: Now, if we go on with this correspondence —
 16 Mr Chairman, I'm aware of the time, but I am very close
 17 to the end of my questions. I've got one email string
 18 to go to and then some follow-up questions. I'd like to
 19 finish it in one run, if that's okay.
 20 SIR MARTIN MOORE-BICK: Yes, all right.
 21 MS GRANGE: Thank you.
 22 If we go to {CLG00031093}, there are some later
 23 parts of this correspondence between Nick Jenkins and
 24 Brian Martin, and if we look at page 5 of this string
 25 {CLG00031093/5}, towards the top of the page, we can see

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1 that Nick Jenkins writes to Brian Martin on
 2 16 February 2016. He says:
 3 "Hi Brian,
 4 "I am forwarding this query to you as recommended by
 5 Sarah Colwell of the BRE. As you will note from the
 6 correspondence below Sarah advises the DCLG are the body
 7 with responsibility for AD B2.
 8 "This matter is currently the topic of much
 9 discussion in the construction industry and if one thing
 10 is evident, that is there is much confusion and
 11 misunderstanding. Your soonest review of the matter
 12 would therefore be most welcome."
 13 If we go down to page 10 {CLG00031093/10}, just to
 14 set this in context, the email that Mr Jenkins
 15 originally sent to you is there at page 10. Then if we
 16 go back up to page 4 {CLG00031093/4}, about halfway up
 17 the page, we can see that Mr Martin responds to
 18 Nick Jenkins, and he copies you in to that response. Do
 19 you see that? It's 16 February 2016 at 17.09. So you
 20 and Stephen Howard are copied to what Brian Martin says.
 21 He says:
 22 "Hi Nick
 23 "It's for the designer and the building control body
 24 to consider if Requirement B4 has been met.
 25 "ADB give guidance on this by saying that the

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1 external walls should not provide a medium for fire
 2 spread in tall buildings.
 3 "It then offers two approaches, a set of rules or a
 4 full scale test.
 5 "In the rules, we deliberately added the word
 6 ' filler ' to address things that form part of the
 7 cladding system that are not insulation but could
 8 provide a medium for fire spread.
 9 "I think the core of an ACP panel could reasonably
 10 be considered to be a ' filler '. So, unless the core
 11 material meets the 'rules' then the AD suggests a full
 12 scale test.
 13 "However, if the designer and building control body
 14 choose to do something else then that's up to them."
 15 Do you see that?
 16 A. Yes.
 17 Q. So we can see he is saying:
 18 "I think the core of an ACP panel could reasonably
 19 be considered to be a ' filler '."
 20 What was your reaction to this response?
 21 A. It had clarified the word " filler " in that context, and
 22 as the — and that was their statement on that point.
 23 Q. But it's not a definitive answer, is it, "could
 24 reasonably be considered"? He is not saying, "Yeah,
 25 core of an ACM panel, absolutely caught by the limited

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1 combustibility requirement, you can't use that".
 2 A. That is very much the style of Brian's response in that
 3 email.
 4 Q. What do you mean, it's the style of his response? Are
 5 you saying that that was typical of the style in which
 6 he would respond to these kinds of queries?
 7 A. I believe so. He — I can't speak for him in the terms
 8 of how he writes, but that is typical of the type of
 9 response I had seen.
 10 Q. Right. Did it surprise you that he was giving this
 11 response which was not definitive about the position?
 12 Did that surprise you?
 13 A. I think I was used to seeing that style, so probably
 14 didn't read anything beyond it.
 15 Q. Right. Because at the CWCT meeting just a month later,
 16 there does appear to be a more definitive answer being
 17 given in the minutes of that meeting, where it said the
 18 BCA technical guidance note extends this requirement to
 19 all material in the wall. When you were at that
 20 meeting, did you think to yourself: well, yes, he's
 21 saying that now, but just a month before he has given
 22 not a very definitive answer to Nick Jenkins? Did that
 23 occur to you?
 24 A. No, I didn't make that connection.
 25 Q. If we go to the bottom of page 3 of these emails and the

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1 top of page 4, we can see Nick Jenkins tried again later
 2 that night. He writes back to Brian Martin, again
 3 copying you in, if you look at the bottom of page 3. He
 4 says at the top of page 4:
 5 "Hi Brian,
 6 "Many thanks for your prompt response. In light of
 7 the fires that have taken hold of a number of buildings
 8 clad in ACM panels in recent years I also think that the
 9 core of ACM panels should most definitely be considered
 10 as a ' filler '. Some ACM cores meet the rules of ADB
 11 however the ones commonly used in the UK at present
 12 don't."
 13 Do you see that?
 14 A. Yes.
 15 Q. He goes on:
 16 "To the best of my knowledge there have been no full
 17 scale 8414 tests carried out to date of any wall
 18 constructions featuring any type of ACM panel. I am
 19 aware that 2 manufacturers of ACM have plans to have
 20 such tests carried out. This however unfortunately
 21 means that no existing buildings in the UK over 18m tall
 22 that feature ACM panels currently meet the B4
 23 requirements. There are many such buildings and their
 24 numbers are growing.
 25 "Whilst I appreciate it is for the designer and

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1 building control body to consider if requirement B4 has
 2 been met, I do think the current situation is of grave
 3 concern. Surely this justifies the requirement for a
 4 less ambiguous statement of the rules?"

5 Do you see that?

6 A. Yes.

7 Q. Do you remember noting Nick Jenkins' description of the
 8 situation as one of grave concern?

9 A. I note that he's re-emphasising — I noted he was
 10 re-emphasising the point to Brian, yes.

11 Q. Did that strike you at the time as heightening the
 12 urgency of the situation?

13 A. I don't recall having a particular response to it at
 14 that time. I read it as him restating what he had put
 15 in his earlier email.

16 Q. Right.

17 If we go up to the very top of this email chain
 18 {CLG00031093/1}, we can see that Brian Martin, his last
 19 reply, that very top reply to Nick Jenkins, again
 20 copying you in, if you look at the second paragraph, he
 21 says this:

22 "You are right, of course, constructions complying
 23 with the rules of thumb may well fail an 8414 test."

24 Do you see that?

25 A. Yes.

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1 Q. Now, you told us yesterday you were surprised to see
 2 a similar statement by Brian Martin in an earlier email,
 3 where he'd said that just because you have followed the
 4 guidance in ADB doesn't mean that you would necessarily
 5 pass an 8414 test. Were you surprised to see that
 6 statement effectively being made again by Brian Martin
 7 here?

8 A. Yes.

9 Q. Now, following this exchange in February 2016, did you
 10 discuss this correspondence or any of the concerns that
 11 Nick Jenkins had raised in it with Brian Martin?

12 A. No, I didn't.

13 Q. Did you do anything or speak to anybody about what you'd
 14 learnt about the historic and ongoing use of ACM PE
 15 products in high-rise buildings from these emails?

16 A. No. I didn't follow them up beyond the — referring
 17 them to the department.

18 Q. Can you clarify why at no time before the Grenfell Tower
 19 fire was any formal clarification provided by the BRE in
 20 response to the concerns which had been raised,
 21 for example by the CWCT and Nick Jenkins?

22 A. Yeah, I can confirm that no formal statement was made.

23 Q. Can you explain why we see no correspondence whatsoever
 24 before the Grenfell Tower fire in which the BRE warns
 25 the department about the grave risk to life safety if

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1 action is not taken urgently to address the use of
 2 ACM PE in the UK market?

3 A. No statement to that effect was made to the department.
 4 They were made aware of the concerns that we were made
 5 aware of.

6 Q. Can you explain why no such statement was made to
 7 industry by the BRE itself?

8 A. Statements of that nature were not publicly made by BRE.
 9 They were referred to the department for them to take
 10 action on.

11 Q. Can you explain how that was professionally or ethically
 12 acceptable on your or the BRE's part?

13 A. We believed that the department were best placed to make
 14 those statements to the widest market.

15 MS GRANGE: Mr Chairman, I've come to the end of my
 16 pre-prepared questions.

17 SIR MARTIN MOORE-BICK: Yes, all right, thank you.

18 MS GRANGE: Perhaps if we could have the usual morning break
 19 and then we can also sweep up any final questions.

20 SIR MARTIN MOORE-BICK: Yes. Well, we will have the usual
 21 morning break at this point, and for the benefit of
 22 anyone who is watching, we will say that any questions
 23 which may occur to people and that they wish to submit
 24 for consideration ought to be submitted within the
 25 morning break.

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1 MS GRANGE: Yes.

2 SIR MARTIN MOORE-BICK: We won't have a separate break.
 3 So we'll stop now and we'll resume, please, at
 4 11.50, and at that stage we'll see whether there are any
 5 more questions for you. All right?

6 THE WITNESS: Thank you very much.

7 SIR MARTIN MOORE-BICK: Good, thank you very much. Would
 8 you like to go with the usher, please.

9 THE WITNESS: Thank you.

10 (Pause)

11 SIR MARTIN MOORE-BICK: Right, Ms Grange, thank you.

12 11.50, please. Thank you.

13 (11.33 am)

14 (A short break)

15 (11.55 am)

16 SIR MARTIN MOORE-BICK: Right, Dr Colwell. Well, I'm sorry
 17 it took a little longer to get organised than I'd
 18 suggested, but we'll now see if there are any more
 19 questions for you.

20 Yes, Ms Grange.

21 MS GRANGE: Yes, just a few short questions, thank you.

22 First of all, have you ever discussed the
 23 Nick Jenkins emails or the results of contract 1924 and
 24 particularly the ACM PE results with Mr Martin at any
 25 time since the fire at Grenfell Tower?

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1 (Pause)
 2 A. No, I don't believe I have.
 3 Q. Right.
 4 We have been through a lot over the last, well, now
 5 four days. If you had the chance again, what would you
 6 have done differently?
 7 A. The — as said previously, the period of reflection with
 8 the CWCT activities from 2013, I absolutely would have
 9 handled in a different way.
 10 MS GRANGE: Right. Okay. Well, thank you. And thank you,
 11 Dr Colwell, for coming and assisting us with our
 12 investigations. We are very, very grateful. Thank you.
 13 THE WITNESS: Thank you.
 14 SIR MARTIN MOORE—BICK: Yes, Dr Colwell, it's right that
 15 I should thank you on behalf of the panel as a whole for
 16 coming to give us your evidence. I'm sorry it took
 17 a long time, and I know that it was difficult for you at
 18 times.
 19 THE WITNESS: Thank you.
 20 SIR MARTIN MOORE—BICK: It's been very helpful to us to hear
 21 what you have to tell us, so we are very grateful to you
 22 for coming here to give your evidence.
 23 THE WITNESS: Thank you.
 24 SIR MARTIN MOORE—BICK: Now you're free to go. Thank you
 25 very much.

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1 THE WITNESS: Thank you very much.
 2 SIR MARTIN MOORE—BICK: Thank you.
 3 (The witness withdrew)
 4 SIR MARTIN MOORE—BICK: Thank you, Ms Grange. Now, we have
 5 another witness.
 6 MS GRANGE: Yes, Mr Millett will be taking Dr Debbie Smith,
 7 so we just need a few minutes to —
 8 SIR MARTIN MOORE—BICK: Thank you. We need a short break
 9 now for what we call housekeeping purposes, and you can
 10 ask the usher to come and get us as soon as you're
 11 ready.
 12 MS GRANGE: We will. Thank you very much.
 13 SIR MARTIN MOORE—BICK: Thank you very much.
 14 (11.59 am)
 15 (A short break)
 16 (12.07 pm)
 17 SIR MARTIN MOORE—BICK: Yes, Mr Millett.
 18 MR MILLETT: Yes, Mr Chairman, good morning to you, good
 19 morning, Mr Akbor, and good morning to Ms Istephan, who
 20 is listening remotely.
 21 I now call the next witness, Dr Debbie Smith,
 22 please.
 23 SIR MARTIN MOORE—BICK: Thank you.
 24 DR DEBBIE SMITH (affirmed)
 25 SIR MARTIN MOORE—BICK: Thank you very much. Please sit

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1 down and make yourself comfortable.
 2 (Pause)
 3 Right.
 4 Yes, Mr Millett, when you're ready.
 5 Questions from COUNSEL TO THE INQUIRY
 6 MR MILLETT: Good afternoon, Dr Smith.
 7 Can I start by thanking you very much for attending
 8 the Inquiry and assisting us with your evidence. We are
 9 very grateful to you.
 10 If you have any difficulty understanding any of my
 11 questions that I'm going to put to you, then please just
 12 say and I can either repeat the question or put it in
 13 a different way.
 14 Can I also ask you, please, to keep your voice up,
 15 so that the transcriber, who sits to your right, can
 16 hear what you're saying and get it down clearly on the
 17 transcript. It also helps, please, not to nod or shake
 18 your head; you have to say "yes" or "no" as the case may
 19 be.
 20 We will take the usual scheduled breaks, but if you
 21 feel you need a break at any other time, we can take
 22 a break.
 23 A. Thank you.
 24 Q. Now, I'm going to start with your witness statement to
 25 the Inquiry, which is at {BRE00005624}, please. That's

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1 the first page of it.
 2 Can you confirm that that is the first page of your
 3 statement to the Inquiry?
 4 A. Yes, I can.
 5 Q. If we go, please, to page 35, we can see a date and
 6 a signature, 10 July 2019. Is that signature above that
 7 date yours?
 8 A. Yes, it is.
 9 Q. Have you read this witness statement recently?
 10 A. Yes, I have.
 11 Q. Can you confirm that its contents are true?
 12 A. Yes, I can.
 13 Q. Have you discussed this witness statement or the
 14 evidence that you're going to give today and over the
 15 next few days with anybody before coming here?
 16 A. No, I haven't.
 17 Q. I'm going to begin, then, with your background,
 18 qualifications and training.
 19 Can we look, please, at page 2 of your statement
 20 {BRE00005624/2} at paragraph 3. We can see there that
 21 you graduated from the University of Birmingham in 1981
 22 with an honours degree in metallurgy and materials
 23 science; yes?
 24 A. Yes.
 25 Q. You also say that you obtained a PhD in the same

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1 subjects for research entitled , "An examination of the
2 dependence of the hydrogen solubility upon the structure
3 and constitution of some palladium—cerium solid solution
4 alloys". Did that work relate to fire ?
5 A. No, it didn't.
6 Q. At paragraph 4 you say that in 1984 you joined the BRE,
7 which I think was then called the Fire Research Station;
8 yes?
9 A. Yes.
10 Q. And I think it was a government organisation at that
11 stage, wasn't it?
12 A. Yes, it was.
13 Q. Your post was as a higher scientific officer in the fire
14 dynamics section; yes?
15 A. Correct.
16 Q. Before you joined, did you have any teaching or learning
17 experience or education in fire ?
18 A. No, I did not.
19 Q. So you learnt on the job?
20 A. Yes. Yes.
21 Q. You were then promoted, I think, in 1989, as you say in
22 paragraph 6, to senior scientific officer in the fire
23 dynamics section; yes?
24 A. Yes.
25 Q. Then in 1998, if we go to paragraph 8 on page 3

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1 {BRE00005624/3}, you can see that you became head of the
2 computer simulation and reaction to fire team at the
3 BRE.
4 A. Yes.
5 Q. Now, at that stage, I think, or by then, the BRE had
6 been privatised, hadn't it?
7 A. Yes, yes, in 1997.
8 Q. In 1997, yes. At that point, had you had any training
9 or education in fire, fire dynamics or fire testing?
10 A. Yes, I had spent my whole time at the Fire Research
11 Station being trained in fire dynamics and how to apply
12 the experimental methodologies, et cetera, you know, in
13 making the measurements.
14 Q. Who trained you?
15 A. It was several people, Professor Geoff Cox, who has now
16 retired from BRE, and I worked alongside other
17 colleagues such as Richard Chitty and Dr Suresh Kumar.
18 Q. Yes. And that was internal, in-house training, was it?
19 A. Yes, yes.
20 Q. So you never went out to obtain a formal qualification
21 in fire, fire engineering, fire safety?
22 A. No. No, I mean, at that time, there were very few
23 opportunities to do that. There were no universities,
24 really, that were offering that kind of qualification.
25 I did attend external training courses as they were

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1 available, and conferences and seminars and workshops,
2 et cetera. I attended an experimental methods training
3 course at Imperial College London, for example.
4 So, you know, at various points, depending on the
5 work that I was undertaking, then I did training that
6 was appropriate to the role that I was doing.
7 Q. Now, at paragraph 9 of your statement {BRE00005624/3}
8 you tell us that in 2006 you became centre director for
9 fire performance and suppression at the BRE when those
10 areas of business moved into BRE Certification Limited;
11 yes?
12 A. Yes.
13 Q. I think, is it right, at Companies House it says that
14 you were made a director of BRE Certification Limited on
15 29 April 2004; yes? That's what it says at
16 Companies House. Can you verify that?
17 A. I can't. I would have to go back and look. I mean, if
18 that's what it says at Companies House, that's probably
19 correct.
20 Q. Leaving aside the specific date, do you recall being
21 made a director of BRE Certification Limited —
22 A. Yes.
23 Q. — at about that time?
24 A. Yes.
25 Q. Yes.

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1 A. And that was for a short period of time, because there
2 was then a re-organisation and a restructuring.
3 Q. Well, I think you ceased to be a director in 2008.
4 A. Yes, I did, yes.
5 Q. Why did you cease to be a director?
6 A. Because of the re-organisation and so on that went on
7 within BRE Group at that time.
8 Q. Right.
9 A. It was decided that we — or not we, but that
10 BRE Global, as it was then, would have a much smaller
11 board of directors, because it was too large and too
12 unwieldy, really, for the size of the company.
13 Q. In 2010, you became centre director for fire sciences
14 and building products.
15 A. Correct.
16 Q. Did you become a statutory director at that time?
17 A. No.
18 Q. We don't think you did, no.
19 A. No, no, it's a job title, in effect.
20 Q. What was your role between March 2008, when you resigned
21 as a director, and 2010, when you became centre director
22 for fire sciences and building products?
23 A. I continued as the centre director for fire performance
24 and suppression.
25 Q. Right.

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1 In April 2016, you became managing director of
 2 BRE Global Limited, I think.
 3 A. That's correct, yes.
 4 Q. And then resigned from that role in April 2020; is that
 5 right?
 6 A. That's correct.
 7 Q. Why did you resign?
 8 A. I took on a BRE Group role at that point for — as
 9 director of sciences and professional development. So
 10 it was not just for BRE Global, it was for the group.
 11 Q. Right.
 12 A. And then obviously, I suppose relevant to this,
 13 I retired then in April 2021.
 14 Q. That was a retirement properly so-called, was it?
 15 A. Yes, yes.
 16 Q. Right. Are you now in retirement?
 17 A. Almost.
 18 Q. What are you —
 19 A. Well, I'm — I've obviously been dealing with the
 20 Grenfell Inquiry and the provision of documents, and
 21 helping BRE with providing that information in the
 22 period since April last year.
 23 Q. But other than that, you are retired?
 24 A. I am.
 25 Q. In the sense most people would understand it?

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1 A. Yes, I am.
 2 Q. Looking at paragraph 11, please, on the screen
 3 {BRE00005624/3}, you say there, and tracking through
 4 your career progression, in 2010 your role was centre
 5 director for fire sciences and building products, and in
 6 2016 managing director of BRE Global, that's
 7 paragraph 13. In April 2016, you were named on
 8 an inaugural list of the UK's top 50 women in
 9 engineering published by The Daily Telegraph; yes?
 10 A. Correct.
 11 Q. You I think became a member — is this right? — of the
 12 International Forum of Fire Research Directors in 2007.
 13 A. Yes, yes, that's correct.
 14 Q. And what does that organisation do?
 15 A. So it's been in existence for a long time —
 16 Q. Since 1991, I think.
 17 A. Yes, and basically it's an opportunity for the fire
 18 research directors of similar research organisations
 19 from across the world to get together to discuss issues
 20 that require research, work collaboratively, if that's
 21 appropriate, on particular topics.
 22 Q. Right, I see. Are you still a member?
 23 A. No.
 24 Q. When did you cease to be a member?
 25 A. When I retired from BRE.

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1 Q. To your recollection, were there members from the
 2 Middle East, UAE, Dubai?
 3 A. No, I don't believe there were. There may be now, but
 4 at that time I don't believe there was anybody from the
 5 Middle East.
 6 Q. Did the work of that forum discuss major fires overseas
 7 of interest to the research community?
 8 A. To some degree. To some degree.
 9 Q. Now, in 2008, you were nominated to the editorial board
 10 of the Fire and Materials Journal.
 11 A. Correct, yes.
 12 Q. Who nominated you?
 13 A. I don't know.
 14 Q. Right. Presumably —
 15 A. I don't recall.
 16 Q. Right. Are you still a member?
 17 A. No, not now.
 18 Q. Did your role involve suggesting particular articles?
 19 A. No.
 20 Q. Right.
 21 A. No, I mean — so that journal is basically a peer review
 22 journal, but it publishes articles that are submitted to
 23 it. They're not invited articles, they are, you know,
 24 articles from the research community that are submitted
 25 to it and then reviewed and published.

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1 Q. Yes.
 2 Now, if you look at paragraph 15 of your statement
 3 on the screen in front of you, you say that you have
 4 been a fellow of the Institution of Fire Engineers since
 5 2016.
 6 A. Mm—hm.
 7 Q. Before that, were you a member of the Institute of
 8 Fire Engineers?
 9 A. No, I wasn't.
 10 Q. How did you come to be a fellow? Did you apply or were
 11 you awarded the grade of fellow by a special board
 12 resolution?
 13 A. No, I was invited to become a fellow by the board of the
 14 Institution of Fire Engineers.
 15 Q. Now, I want to ask you about the details of your role
 16 and your line management.
 17 Paragraph 32 of your statement {BRE00005624/10} —
 18 well, in fact, let's take it more quickly than that.
 19 Sarah Colwell in her statement explains that you
 20 were her line manager in the reaction to fire team from
 21 1997 onwards; is that correct?
 22 A. I think it would be 1998, but, as the head of —
 23 Q. And in that role, you had, as she puts it, direct
 24 oversight of her work.
 25 A. Insofar as, yeah, the line manager of Sarah, yes.

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1 Q. Yes. And that was the case until you left in
2 April 2021?
3 A. No.
4 Q. No? When did that stop?
5 A. Well, we'd been through various iterations and
6 re-organisations within BRE. I can't remember the —
7 oh, no, it would have stopped in 2016, when I became the
8 managing director of BRE Global.
9 Q. Oh, I see. Who became Sarah Colwell's line manager in
10 2016?
11 A. It would have been Dr Julie Bregulla.
12 Q. Is that how you pronounce it?
13 A. Yes, yes.
14 Q. You have solved a controversy.
15 A. Okay.
16 Q. Julie Bregulla became her line manager at that date, and
17 when did Julie Bregulla cease to be Dr Colwell's
18 line manager?
19 A. It would have been when Julie left the business, and —
20 which I think was probably at the beginning of 2021,
21 around that sort of time, I can't remember the exact
22 date, but ...
23 Q. Now, so far as Dr Corinne Williams is concerned, is it
24 right that you were also her line manager from 2002 to
25 2007?

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1 A. Yes, that would have been when she was heading up the
2 suppression —
3 Q. Yes.
4 A. — area of activity.
5 Q. She, I think, was the business area manager for the fire
6 suppression team; correct?
7 A. Correct, yes, yeah.
8 Q. Now, did you maintain direct oversight of both
9 Dr Williams' and Dr Colwell's activities?
10 A. Insofar as I was their line managers. However, they did
11 report to other people, of course, depending upon the
12 type of work that they were undertaking and the projects
13 that they were undertaking.
14 Q. I see.
15 A. So, you know, if you were working on somebody else's
16 project, you would be accountable to that person.
17 Q. Right. But generally speaking, you would supervise and
18 monitor the work done by Drs Colwell and Williams?
19 A. Yes, especially from, you know, a performance point of
20 view, in terms of meeting KPIs and business plans and so
21 on.
22 Q. Did you meet them regularly?
23 A. Yes, yes.
24 Q. How often?
25 A. I can't recall exactly. It would have probably been

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1 monthly.
2 Q. Did you review their written work?
3 A. On occasions, yes.
4 Q. What occasions?
5 A. I mean, it would not be all the time. I mean, if —
6 I have reviewed many, many reports during my time at
7 BRE. I can't really recall specific examples. But,
8 you know, obviously I have reviewed their written work,
9 yes.
10 Q. Right. On what sort of occasions would you have cause
11 to read their written work?
12 A. It might be an output from a project. It — I would
13 obviously have reviewed their — any written work that
14 they produced in terms of monthly reports, in terms of
15 the business, and that would have been on a sort of
16 regular basis.
17 Q. Now, Ciara Holland, she says in paragraph 8 of her
18 statement {BRE00043829/2} that she joined the BRE on
19 1 October 2012 as a consultant in the fire investigation
20 team, or the fire investigation business group, I think,
21 and worked on projects in the wider fire safety group as
22 the need arose. Can you confirm that?
23 A. I can't confirm the date, but I'll take that as read.
24 Q. Right.
25 She also says, just taking it shortly, that you were

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1 the contract manager, project director and QA for all
2 fire safety related government research projects, and
3 ultimately approved bids and proposals and also approved
4 many fire research reports. Is that correct, as
5 a general description of your role?
6 A. Yes. I mean, I didn't approve all research reports, but
7 I probably did approve a number, and also I probably
8 didn't approve every single proposal, because obviously
9 if I wasn't there when the deadline had to be met —
10 Q. She says in the same place — it's paragraph 13 of her
11 statement on page 4 {BRE00043829/4} — that she
12 understood that the fire investigation team ultimately
13 reported to you, Dr Smith. Is that correct?
14 A. Well, insofar as I was the managing director at that
15 time. That's when she's talking about, is it? Yes?
16 Q. Well, from 1 October 2012.
17 A. Yes, I — from 2012, yes, I would have been the director
18 with responsibility at that time. Yes, yes.
19 Q. Were you a director with responsibility for the fire
20 investigation team before October 2012?
21 A. I don't think — no, I don't think I was.
22 Q. Right.
23 A. So I reported in to another member of the management
24 team at BRE.
25 Q. Now, you can see that she refers, in the second and

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1 third line, to the fire sciences and building products
 2 division.
 3 A. Yes.
 4 Q. Who else or what other teams sat within that division?
 5 A. So there was the fire safety business group, that was
 6 headed up by Steve Manchester; there was the passive
 7 fire group, which was headed up at that time by
 8 Stephen Howard; there was the suppression business group
 9 that was headed up by Dr Sarah Colwell.
 10 Q. Did that sit within the wider fire safety group or ...?
 11 A. No, no, there was a fire safety business group.
 12 Q. Right. And that's Steve Manchester?
 13 A. Yes, yes.
 14 Q. I see. So those three, as it were, subgroups sat within
 15 the fire sciences and building products team?
 16 A. Yes.
 17 Q. I follow.
 18 Now, Martin Shipp, in his statement to the Inquiry
 19 at paragraph 79, page 15 {BRE00047594/15}, says — and
 20 I'm summarising — that from 2007 or 2008 — in fact, we
 21 can look at it on the screen. He says this:
 22 "From (as I recollect) around 2007 or 2008 until her
 23 retirement in 2021, Debbie Smith has been responsible
 24 for signing-off any papers that are published (i.e. put
 25 into the public domain). This includes papers resulting

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1 from research for Government, which will be signed-off
 2 once the Government client has had an opportunity to
 3 comment on the draft."
 4 Is he correct in what he says there?
 5 A. It's around 2008, I think that is pretty much correct.
 6 What I would say was, or is, that any paper that was
 7 published externally also went through a final read by
 8 others within the BRE Group, so that they were aware of
 9 what was going into the public domain. For example,
 10 that might and would tend to include the managing
 11 director of the company, of the BRE — of BRE Global.
 12 Q. Right. I'm going to explore that a little bit.
 13 A. Yes.
 14 Q. When you say, "went through a final read by others
 15 within the BRE Group", does that mean that even though
 16 you were signing something off, there was somebody
 17 either equal to you as a peer or senior to you,
 18 supervising you, who would review your sign-off?
 19 A. Yes, to some extent. I mean —
 20 Q. To what extent?
 21 A. Well, I mean, to the extent that they read them.
 22 I mean, they didn't all read all of them, but they saw
 23 them all so that they were aware of what was coming out
 24 and what was going into the public domain.
 25 Q. I see. So can we leave that like this, then: when you

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1 signed off, sometimes somebody would peer review your
 2 sign-off or supervise it, and sometimes they wouldn't?
 3 A. Yes, that's correct.
 4 Q. Yes, I see.
 5 Now, we'll look at some sections now from
 6 Tom Lennon's witness statement for the Inquiry. He,
 7 wasn't he, was at the BRE from 1983? Well, he was
 8 principal consultant in the fire safety group, wasn't
 9 he?
 10 A. Well, he is now, yes.
 11 Q. He is now.
 12 A. Yes.
 13 Q. Do you know when he started?
 14 A. What, as principal consultant or —
 15 Q. Yes.
 16 A. No, I don't know when he was prompted to —
 17 Q. Okay. He says he was principal consultant in the
 18 fire safety group and that you were the key account
 19 manager for probably all the government research
 20 projects that he worked on within the fire safety group
 21 of BRE. Do you agree with that? That's what he says.
 22 A. I took over that role in 2008, when Peter Field retired
 23 from BRE.
 24 Q. Yes. What is a key account manager?
 25 A. Well, it was somebody that was defined within the

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1 proposal that went to the customer, and basically the
 2 key account manager's role is to act or was to act as
 3 the key point of contact for any communications,
 4 et cetera, any problems that might be occurring with
 5 projects. They were the person that the department had
 6 a point of contact.
 7 Q. I see it.
 8 A. Yeah.
 9 Q. Now, he also says, does Tom Lennon, that you ran the
 10 BRE Trust research programme. Very briefly, if you can,
 11 what was that?
 12 A. Okay. So, I mean, I don't think I quite agree with
 13 that, I didn't run the BRE Trust research programme, but
 14 the BRE Trust received monies from — any profits that
 15 BRE made were gift aided to the BRE Trust, and then they
 16 spent that money on a variety of different activities
 17 for the public good, and that included research, it
 18 included some publications, it also included funding
 19 PhDs at partner universities where we'd set up
 20 university centres in — I think at one point there were
 21 five of those in the UK. So it was all about sort of
 22 education, training and improving sort of the knowledge
 23 base.
 24 The BRE Trust tended to fund research, and they had
 25 a panel, a research committee, that were not employees

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1 of BRE, that would review all of the proposals that were
 2 submitted to them, and then they would decide their
 3 priority and which ones they wanted to fund.
 4 So, you know, my involvement and other colleagues
 5 within BRE was to basically facilitate the proposals
 6 from the teams, to encourage them to put in bids, but
 7 I didn't — you know, I wasn't the decision-maker in
 8 terms of whether they got funded or not.
 9 Q. Is it right that the BRE Trust's funding came from the
 10 profits generated by the business side of BRE?
 11 A. Yes.
 12 Q. Solely or —
 13 A. That's my understanding, anyway.
 14 Q. Right. Were there any other sources of funding to the
 15 BRE Trust?
 16 A. I don't know.
 17 Q. You don't know.
 18 Was the BRE business side involved at all in
 19 initiating and devising the research projects carried
 20 out by the BRE Trust?
 21 A. Well, insofar as we would bid in and put the proposals
 22 to the BRE Trust, but, you know, every year, far more
 23 proposals went in than there was money available to
 24 fund, so it was — you know, it really was the research
 25 committee's decision to review all of those and to

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1 decide where they wanted to place their money,
 2 basically.
 3 Q. Can I just then come back to your career.
 4 Paragraph 11 of your own statement, please, page 3
 5 {BRE00005624/3}, you say that in June 2010 you were
 6 awarded an OBE for services to fire safety; that's
 7 right, is it?
 8 A. Yes, it is.
 9 Q. You go on in your statement, at paragraphs 14 on page 3
 10 through to 19 — we don't need to read it all out — to
 11 give an overview of your various appointments,
 12 fellowships and memberships of BSI committees, and some
 13 aspects of the research work that you've carried out or
 14 been involved in and your published works over the
 15 period of your career.
 16 A. Mm—hm.
 17 Q. Just in summary, would you accept this characterisation:
 18 that you are a renowned expert in the United Kingdom in
 19 the field of fire safety? You don't have to be modest.
 20 A. Well, I think I'm seen as a fire expert. I mean, it's
 21 for others to judge if you are renowned or not, isn't
 22 it?
 23 Q. Let's see if I can get your reaction to something.
 24 Can we go, please, to {META00001285}. Now, it will
 25 be obvious to you, looking at the screen at the bottom,

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1 what it is I'm asking you to look at and why. It's
 2 an email of 16 June 2017, so two days after the
 3 Grenfell Tower fire, sent by Pavlos Vatavalis of
 4 European Aluminium, and in the second paragraph of his
 5 email he says:
 6 "Debbie Smith is the GOD of fire in UK and one of
 7 the few in Europe. Definitely her opinion is more than
 8 important."
 9 Were you aware at the time of the Grenfell Tower
 10 fire that this is how you were, at least in some
 11 quarters, regarded in the industry?
 12 A. No, and I've never — I don't recall ever meeting
 13 Pavlos Vatavalis.
 14 Q. No.
 15 A. So I — you know ...
 16 Q. I mean, you may not claim divinity for yourself, but
 17 were you ever aware that you were revered to this
 18 extent?
 19 A. No.
 20 Q. Now, let's turn, then, to some history.
 21 1997, as I think you confirmed, the BRE was
 22 privatised, wasn't it?
 23 A. Yes.
 24 Q. In the dying days of the Major administration.
 25 A. Correct, yes.

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1 Q. What impact did the privatisation have on your role?
 2 A. On my role? So pre-privatisation, a lot of the work
 3 that I did was funded through something called the
 4 directors programme, which was very focused on more
 5 prenormative type research, that is — more fundamental
 6 type research, perhaps is a better description, to make
 7 it easier to understand, rather than sort of the
 8 near market type research for direct application. So
 9 all of the work that was done on the development and the
 10 validation of computational methods, the application of
 11 computational fluid dynamics to fires and the
 12 application of other types of modelling approaches that
 13 was pioneered at the Fire Research Station was done and
 14 funded through that mechanism, if you like.
 15 When I joined, I mean, part of my role was to
 16 develop data from experimental programmes that could be
 17 used to validate the computational models that were
 18 being developed, and, yeah, basically to help then
 19 provide the data that would develop the sub-models that
 20 needed to go in it, because using a fundamental fluid
 21 dynamics model, you can't model everything on first
 22 principles.
 23 Q. That's quite a specific and scientific answer to my
 24 question.
 25 A. Sorry.

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1 Q. I'm looking for something a bit more economic.
 2 A. Sorry.
 3 Q. As a matter of common sense, is it right that
 4 privatisation meant that the BRE then had to stand on
 5 its own two feet financially?
 6 A. Oh, yes, yes. Yes, of course, yes.
 7 Q. Therefore, the source of government funds was cut off
 8 and could only be accessed by bidding for contracts.
 9 A. Yes. I mean, the first five years after privatisation,
 10 and I don't know the full details of it, but certainly
 11 as part of the privatisation deal, if you like, with
 12 government, the — they — there was a guaranteed
 13 minimum level of funding to BRE under the first
 14 framework, and, I mean, it meant they could spend more
 15 than that, but it meant they wouldn't go below
 16 a baseline minimum. But that only existed for the first
 17 five years.
 18 Q. So it expired in, what, 2002?
 19 A. Yes, it would have done.
 20 Q. And after that, you then had to make your way in the
 21 world financially?
 22 A. Yes, and any government funding had to be bid for.
 23 Q. Yes.
 24 Can we look at Martin Shipp's second statement to
 25 the Inquiry at {BRE00047594/12}, please, paragraph 69.

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1 He says this:
 2 "Publications were in my view also affected by
 3 privatisation. Prior to privatisation essentially all
 4 of the fire safety research we carried out was for
 5 Government and most was quite quickly put into the
 6 public domain [and he gives an example]. (As I discuss
 7 further below, fire investigation reports, considered to
 8 be supporting the development of Government policy, were
 9 mostly not published.) Following privatisation, the
 10 programme of work for Government diminished and also the
 11 process for putting findings into the public domain
 12 became more cumbersome, since BRE's legal interests had
 13 to be protected. The research that was commissioned by
 14 non-government organisations (i.e. the private sector)
 15 was for their own commercial purposes and seldom entered
 16 the public domain."
 17 Does what Mr Shipp says there accord with your own
 18 experience?
 19 A. Largely. I'm not quite sure what he means by it became
 20 more cumbersome. I mean, obviously pre-privatisation,
 21 then Her Majesty's Stationery Office would have been the
 22 main route for publishing reports, et cetera, and
 23 obviously once we were privatised, that was no longer
 24 available, and there was a period of time where outputs
 25 from government work — I don't think the department at

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1 that time, which I think it was DETR, quite knew how to
 2 deal with them.
 3 Q. Was it your own experience that the BRE's fire safety
 4 research was made publicly available less quickly and
 5 according to a more cumbersome process than before
 6 privatisation?
 7 A. I suppose that there is an element of truth in that,
 8 yes, in the sense that prior to privatisation, I suppose
 9 there was more freedom to put research into journals,
 10 peer reviewed journals and so on, without the oversight.
 11 But clearly once we were privatised, then everything
 12 that was going to be put into the public domain had to
 13 go through the department, so there was another tier of
 14 checking, if you like.
 15 Q. Yes, I see. Was that partly, at least, because the
 16 BRE's legal interests had to be protected?
 17 A. I don't know what he means by that. I'm not sure.
 18 Q. Was it also your experience that, after privatisation,
 19 the programme of fire safety research work for the
 20 government diminished?
 21 A. Yes.
 22 Q. Yes.
 23 If we go on to page 13 of his statement
 24 {BRE00047594/13}, please, paragraph 71, he says:
 25 "In my opinion, privatisation has also impacted upon

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1 the Investigation of Real Fires programme, beyond the
 2 reduction in financial value. The project did and does
 3 depend very much on the cooperation and good will of
 4 Fire and Rescue Service officers, who notify us about
 5 significant fires, arrange access for us, and usually
 6 accompany us. Before privatisation, we, as civil
 7 servants, were (I believe) seen by Fire and Rescue
 8 Services as comrades in public service with a public
 9 service ethic, and we felt the same; after privatisation
 10 we were, in my view, often perceived as just another
 11 commercial business. BRE staff, who had thought they
 12 were working for the public good (and who before
 13 privatisation necessarily did not need to consider
 14 whether projects were profitable), now were encouraged
 15 by the new owners of BRE to always consider whether
 16 a project would be profitable (or, at least, cover its
 17 costs) in order that BRE could continue to operate as
 18 a viable organisation."
 19 Now, we will come back in due course, Dr Smith, to
 20 some detailed questions about the Investigation of Real
 21 Fires project, but in general terms, does what
 22 Martin Shipp says there accord with your experience?
 23 A. Yeah, I mean, I had no direct experience of dealing with
 24 the fire and rescue service officers that he refers to,
 25 so, I mean, obviously I —

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1 Q. You can't comment on that?

2 A. Yeah, I concede on that point to what his recollection

3 is and what his understanding is on that.

4 Q. Right.

5 In your experience, did the BRE investigate fewer

6 fires as a consequence of privatisation?

7 A. If the financial value of the contract that was let had

8 reduced, then inevitably, yes, they would have.

9 Q. Does that mean that the less money there was available

10 to investigate, the less you would investigate?

11 A. Yes, of course, yes.

12 Q. Now, we'll look at a section next of Peter Field's

13 statement.

14 Just briefly on Peter Field, is it right he was

15 senior to you and was at the BRE from 1965 to 2007?

16 Those are the dates he gives.

17 A. Yeah. Well, he was senior to me. I don't know when he

18 joined.

19 Q. Right.

20 A. I mean, obviously that was way before I joined, so ...

21 Q. Indeed. But I think you can confirm at least this much:

22 that he was director of fire safety and security in the

23 years 2004 to 2007?

24 A. Yes.

25 Q. Yes.

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1 Now let's look at his statement, please,

2 {BRE00043710/10}. He says this. It's paragraph 54,

3 just at the bottom of page 10. He says there:

4 "I have some recollection that immediately prior to

5 or during the Five Year Guarantee, the OPDM/DETR (then

6 DOE) official responsible for making the case for BRE's

7 funding for work in support of Fire Safety Research and

8 ADB (I believe this was Anthony Fergusson) was not as

9 successful in obtaining the level of funding that had

10 previously been provided. In particular, I seem to

11 recall that the funding for fire research and

12 investigations in support of ADB was at some stage

13 around £3—£4 million per financial year, and over maybe

14 4—5 years this reduced to around £1.5—£2 million.

15 Having said that, I do not have a firm recollection of

16 the exact dates or amounts and, as noted above, I do not

17 recall being made aware of precisely how funding

18 operated under the terms of the Five Year Guarantee

19 (including whether funding was always intended to taper

20 off in successive years). However, I do know that the

21 funding for this work did reduce significantly."

22 Again, would you agree with what he says there?

23 A. Insofar as I am aware, yes, because I, like Peter, did

24 not have any direct involvement with the five-year

25 guarantee. I mean, that was dealt with at BRE top —

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1 the top management level.

2 Q. Right. In as few sentences as you can, what did the

3 five-year guarantee involve?

4 A. Okay, so that's what I spoke about earlier.

5 Q. That's what you told us about before?

6 A. Yes, yes.

7 Q. Right.

8 Were you aware at any time during the five-year

9 period that the official who was responsible for making

10 the case for BRE's funding for work in support of the

11 fire safety research and ADB, Mr Fergusson, was not as

12 successful in obtaining the level of funding that had

13 previously been provided?

14 A. I don't know.

15 Q. You don't know. You don't know why, do you?

16 A. No, I don't.

17 Q. Right.

18 Do the figures that are referred to here by Mr Field

19 sound familiar to you, at least?

20 A. They sound approximately right. They don't sound way

21 off.

22 Q. Right.

23 Was it the case that funding went to other

24 organisations or was it the case that the funding for

25 the research and investigations in support of Approved

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1 Document B particularly was reduced?

2 A. I wouldn't know that.

3 Q. You don't know?

4 A. No, no.

5 Q. Was less work in support of fire safety research and

6 Approved Document B carried out across the board, do you

7 know, post-privatisation?

8 A. I think it was, yes.

9 Q. Yes.

10 If you look at page 11 {BRE00043710/11},

11 paragraph 55, he says this, Mr Field:

12 "I recall that the reduction in funding from

13 Government had three key implications for BRE:

14 "a. the need to seek a larger proportion of its

15 income from commercial sources in order to fully utilise

16 staff whose capabilities had been developed and

17 maintained, and whose costs had previously been covered

18 by Government funding;

19 "b. more limited financial resources, which led to

20 the loss of some staff and expertise;

21 "c. a particular impact on the resources available

22 to conduct BRE's so-called 'blue skies' research, which

23 was often undertaken to pre-empt future issues in terms

24 of fire safety. These activities could not easily be

25 funded from commercial sources."

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1 Do you agree with what Mr Field says there in terms
 2 of the implications of a reduction in funding from
 3 central government?
 4 A. Yes, I do.
 5 Q. You do.
 6 Were those matters ever matters that you yourself
 7 discussed with Peter Field?
 8 A. I'm sure we must have discussed them at some point.
 9 Q. What about Martin Shipp, did you discuss those matters
 10 with him?
 11 A. Yes. I mean, I think that these were issues that were
 12 clear to people and, you know, clearly with the loss of
 13 staff and expertise, et cetera, you know, it was
 14 visible, it was palpably visible.
 15 Q. And what was the impact of the BRE being compelled to
 16 seek a larger proportion of its income from commercial
 17 sources?
 18 A. It did change the type of work that we could undertake.
 19 Q. Can you —
 20 A. Because, as Peter has said there, you know, commercial
 21 bodies and organisations, companies, et cetera, were
 22 never willing to fund, like, prenormative fundamental
 23 type research work as a rule. I mean, they were only
 24 interested in any research work that was quite focused,
 25 and made it, you know — so it made it very much more

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1 difficult. The only way that you could do some of this
 2 work was through project types like the Partners in
 3 Innovation and the Partners in Technology programmes
 4 where they were part-funded, because I think as either
 5 Martin or Peter has said there, the — I don't know if
 6 it was Peter — that the — that there was a reluctance
 7 for — from commercial organisations to make the
 8 findings of their research generally available.
 9 MR MILLETT: Is what you're saying —
 10 SIR MARTIN MOORE-BICK: Sorry, can I just ask this: when you
 11 were funded by the government, who was responsible for
 12 the direction of what one might call your blue skies
 13 research?
 14 A. It was still held, the responsibility for that, in the
 15 department, in the government department, and again,
 16 bids would have to be made to the government department
 17 and the officials, whoever they were there, to consider
 18 if they wanted to fund that or not.
 19 SIR MARTIN MOORE-BICK: So basically people in the BRE
 20 proposed research projects —
 21 A. Yes.
 22 SIR MARTIN MOORE-BICK: — to the government for
 23 consideration —
 24 A. Yes.
 25 SIR MARTIN MOORE-BICK: — and funding?

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1 A. Yes.
 2 SIR MARTIN MOORE-BICK: And presumably, even after
 3 privatisation, there was no reason in principle why
 4 a similar process couldn't be followed?
 5 A. Erm ...
 6 SIR MARTIN MOORE-BICK: Well, you could suggest to
 7 government that here was a problem that needed some
 8 research and would they like to fund it.
 9 A. Yes, and indeed we did.
 10 SIR MARTIN MOORE-BICK: Right.
 11 A. You know, that continued for some time —
 12 SIR MARTIN MOORE-BICK: Yes.
 13 A. — where ideas for projects were put forward to
 14 government to consider whether they wanted to fund them
 15 or not.
 16 SIR MARTIN MOORE-BICK: I mean, it suggests to me that the
 17 real problem was not necessarily privatisation as such,
 18 but the government's willingness to fund what you call
 19 blue skies research.
 20 A. Yeah, well, Peter calls it that, yeah. Yes.
 21 SIR MARTIN MOORE-BICK: That's really the problem, wasn't
 22 it?
 23 A. Yes. Yes, I think so, yes.
 24 SIR MARTIN MOORE-BICK: Thank you.
 25 MR MILLETT: And the obverse of that is that commercial

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1 entities, manufacturers for example, were not interested
 2 in experiments for the benefit of a better understanding
 3 of fire safety in the public interest, but for the
 4 better to sell their products?
 5 A. Absolutely, yes. And that's not just manufacturers, of
 6 course, that could be other types of commercial
 7 entities.
 8 Q. Can you give us an example?
 9 A. It might be work that was being done for a commercial
 10 retailer, for example.
 11 Q. Yes, I see.
 12 Now, was there a time when there was research that
 13 you can recall that you or your team wanted to carry
 14 out, perhaps to explore fundamental issues or to
 15 pre-empt problems in terms of fire safety, but were
 16 unable to do so because of a lack of funding?
 17 A. That's been a constant line through, you know, the path
 18 that we've been on.
 19 Q. Right.
 20 A. You know, it's — as I say, all bids for research into
 21 funding opportunities are competitive, and invariably
 22 some get funded and some don't.
 23 Q. Can we then look at Peter Field's statement, please, at
 24 page 11 {BRE00043710/11}, paragraph 56. He says this:
 25 "There were further major changes once the

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1 Fire Safety Framework Agreement was entered into in
 2 2003, following the end of the Five Year Guarantee. The
 3 Government began to tender competitively for the
 4 research that it required in support of the
 5 Building Regulations. The subsequent management of
 6 contracts awarded was handled by intermediary contract
 7 managers, AEA Technology. I remember feeling that
 8 privatisation had now diminished further the close
 9 working relationship BRE previously had with Policy
 10 Officers within Government who were responsible for
 11 commissioning research in support of the
 12 Building Regulations. I felt the involvement of
 13 AEA Technology as Research Management Contractors added
 14 an unnecessary and costly 'middle man' into
 15 an arrangement that had been working effectively for
 16 decades, which did not add value for money and which
 17 introduced a new level of bureaucracy."

18 Now, did you yourself consider also that through
 19 competitive tendering and the introduction of this
 20 middleman, AEA Technology, as contract manager, the BRE
 21 and the Building Regulations policy officers' close
 22 working relationship was undermined or further
 23 diminished?

24 A. I mean, obviously I didn't have the same experience that
 25 Peter did, having been there for much longer and knowing

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1 how it worked through the years, but certainly, yes,
 2 there was a change in the way that we interacted.

3 Q. Yes. You wouldn't disagree with anything he said there,
 4 or would you?

5 A. Well, I don't know whether it was an unnecessary and
 6 costly middleman. I mean, it's not for me to comment on
 7 that.

8 Q. Did you consider that there was some benefit to
 9 fire safety research by the addition of AEA Technology
 10 as management contractors?

11 A. I mean, the only, I suppose, advantage that came with
 12 that was they produced basically a portal where all of
 13 the documents and so on were all archived, so all of the
 14 outputs and reports and so on were archived on their
 15 database, and in a way that made report approval and the
 16 management a little bit easier.

17 Q. In relation to the fire safety framework, do you know
 18 when that came to an end?

19 A. So there were three fire safety frameworks. There was
 20 the initial five-year guarantee to BRE on privatisation.
 21 There was then a second framework that was competitively
 22 tendered, yeah, in 2003. That then ran, I think, until
 23 2007/2008, and then there was a third framework, again,
 24 that was competitively tendered. But each time, they
 25 kind of evolved and they were slightly different from

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1 the previous one.

2 Q. And the third framework, when did that end?

3 A. I think that must have ended — I think it was
 4 a four-year framework, so it probably ended around 2011.

5 Q. What happened after that?

6 A. Everything just became competitively tendered.

7 Q. Right.

8 A. Any projects were put — procured through the government
 9 procurement portal.

10 Q. I see. So you had no safety net, effectively?

11 A. Well, we didn't have a safety net after 2002.

12 Q. Right. But you didn't have, as it were, an offtake
 13 agreement, a framework agreement under which you could
 14 continue to work?

15 A. No, and, I mean, as I say, the frameworks evolved. So
 16 the final framework, there were a number of contractors
 17 that were appointed to that framework, and then when
 18 a project came up, then all of those people that were
 19 appointed to the framework were invited to bid for it.
 20 So it was competitive and again competitive, if you see
 21 what I mean.

22 Q. You were, I think, the fire safety framework manager at
 23 times.

24 A. Yes.

25 Q. Can you just tell us when?

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1 A. So I took over, as I say, when Peter Field retired,
 2 which was approximately at the end of the second
 3 framework, so I was the fire safety manager through the
 4 third framework.

5 MR MILLETT: Now, I'm going to turn to a new topic.
 6 Mr Chairman, it's 12.55. I can make a decent start
 7 on it, but I won't finish it.

8 SIR MARTIN MOORE-BICK: Can you? All right.

9 MR MILLETT: Yes. It is ADB and some definitions.

10 I want to ask you about some particular definitions
 11 and fire classifications.

12 First, I want to ask you about the background to
 13 national class 0.

14 Now, we know, I think — and correct us if we're
 15 wrong about this — the classification is achieved by
 16 combining particular results from two British Standard
 17 tests: BS 476-6 and BS 476-7.

18 A. Correct.

19 Q. Looking at 7 first of all, that's a surface spread of
 20 flame test, isn't it?

21 A. Correct.

22 Q. What is your understanding of the origins of that test?

23 A. I don't know.

24 Q. You don't know?

25 A. I mean, it way pre-dates my involvement with joining the

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1 Fire Research Station even.
 2 Q. Right.
 3 A. But BRE and the Fire Research Station, to my knowledge,
 4 were not involved heavily — at the time that I joined,
 5 anyway, up until 2000 — in fire testing to BS 476—6
 6 and 7. We didn't have any spread of flame apparatus or
 7 a fire propagation test.
 8 Q. Do you know — and if you don't know, tell me — from
 9 the 1940s, in fact, it was a method of testing
 10 flame spread within corridors inside buildings?
 11 A. Yes, it was for lining materials, I know that, yes, of
 12 course.
 13 Q. Yes.
 14 A. Yes, yes, internal lining materials.
 15 Q. Internal lining materials.
 16 A. Yes.
 17 Q. Yes, thank you.
 18 Do you agree that there have been no fundamental
 19 changes to the part 7 test since it was initially
 20 developed at some point during World War II?
 21 A. That may be true. I can't really comment on that. I've
 22 not done a historic review of it back to 1940, so ...
 23 Q. No.
 24 Do you know that the reference scenario, if I can
 25 put it that way, for that test is an internal fire?

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1 A. Yes.
 2 Q. Yes.
 3 Turning then to part 6, that tests fire propagation,
 4 doesn't it?
 5 A. Yes.
 6 Q. How would you define fire propagation in very, very
 7 simple terms?
 8 A. Yeah, I mean, basically what the test is doing is it's
 9 measuring temperature increase when exposed to
 10 an external radiant — an internal radiant panel within
 11 the box that the sample is exposed in. So, essentially,
 12 you're measuring the contribution from that product,
 13 that material, that you've got mounted in the box, to
 14 that imposed radiant heat flux, and the gas flame along
 15 the bottom as well.
 16 Q. Yes. Do you have any understanding about the origins of
 17 that test?
 18 A. No, again, I don't.
 19 Q. Again, do you agree at least this much: that it was
 20 developed and intended to test fire propagation within
 21 a compartment?
 22 A. That's my understanding, yes.
 23 Q. So both of those tests have internal fire as their
 24 reference scenario?
 25 A. That's my understanding, yes.

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1 Q. Neither was designed or intended for an external
 2 cladding fire scenario?
 3 A. Correct.
 4 Q. Did there ever come a time during your long career at
 5 the BRE when you considered whether class 0 as
 6 a classification, based as it was on two tests from the
 7 1940s and perhaps 1950s, was any longer an appropriate
 8 or safe test in the light of modern materials and modern
 9 methods of construction being used in external wall
 10 build-ups as they were evolving?
 11 A. Well, my understanding to the background of this, but
 12 obviously it wasn't at the time, because I wasn't
 13 working in that area, but, you know, my understanding is
 14 that it was around 1988 when, you know, concerns were
 15 first raised around that, which led to some large-scale
 16 experimental work being done which were reported in
 17 BR 135, and from there on in, you know, there was
 18 a growing body of evidence that showed that, you know,
 19 a larger scale scenario-based test more relevant to
 20 external fire performance was being pursued.
 21 Q. Yes. We may come to that. But just focusing on my
 22 question: did you ever ask yourself at any time during
 23 your career at the BRE, "I wonder whether class 0 really
 24 is an appropriate classification for reaction to fire
 25 for an external wall panel, given its origins and its

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1 reference"?
 2 A. Not in that sense, because other things were going on
 3 with a view to — one which would have made the class 0
 4 classification and all of the other national classes
 5 redundant anyway, and that's the European developments
 6 within the publication of the European norms; and,
 7 secondly, the development of the large-scale test that
 8 was going on for a number of years.
 9 Q. Well —
 10 A. Which ultimately became BS 8414, of course.
 11 MR MILLETT: And we will come to European norms after the
 12 break.
 13 Is that a convenient moment?
 14 SIR MARTIN MOORE-BICK: Yes, I think it is.
 15 Well, I think, Dr Smith, it's time we stopped for
 16 some lunch. I know you're only just getting into your
 17 stride, but if we don't stop now, we might never get any
 18 lunch.
 19 THE WITNESS: Okay.
 20 SIR MARTIN MOORE-BICK: So we will do that. We will resume,
 21 please, at 2 o'clock, and as you have started giving
 22 your evidence, I'm going to say to you, as I have to
 23 everybody else, please don't talk to anyone about your
 24 evidence or anything relating to it while you're out of
 25 the room. All right?

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1 THE WITNESS: Okay. Yes. Thank you.
 2 SIR MARTIN MOORE—BICK: Thank you very much. Would you like
 3 to go with the usher, then, please.
 4 THE WITNESS: Thank you.
 5 (Pause)
 6 SIR MARTIN MOORE—BICK: Thank you.
 7 2 o'clock, Mr Millett, thank you.
 8 (1.01 pm)
 9 (The short adjournment)
 10 (2.00 pm)
 11 SIR MARTIN MOORE—BICK: All right, Dr Smith, are you ready
 12 to carry on?
 13 THE WITNESS: Yes, thank you.
 14 SIR MARTIN MOORE—BICK: Thank you very much.
 15 Yes, Mr Millett.
 16 MR MILLETT: Thank you, Mr Chairman.
 17 Dr Smith, can I next move on to the Euroclass
 18 system, which I think you will agree was introduced into
 19 the United Kingdom in 2002 as a result of the European
 20 Construction Products Directive.
 21 A. Yes, correct.
 22 Q. Just accept from me — I think you know this anyway —
 23 that the standard which explains how Euroclass B is
 24 derived is EN 13501—1.
 25 A. Yes, that's correct, yes.

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1 Q. Can we look, please, at the British Standard in force at
 2 the time of the Grenfell Tower refurbishment at
 3 {BSI00001738}. Let's look at page 1, first of all, to
 4 identify the document, and then go in it to page 40.
 5 There it is on page 1.
 6 At page 40 {BSI00001738/40}, we have the
 7 classification criteria.
 8 (Pause)
 9 Well, perhaps I can take this more shortly if there
 10 is a problem with the document.
 11 SIR MARTIN MOORE—BICK: You have got it now.
 12 MR MILLETT: I think we've got it.
 13 "Table 1 — Classes of reaction to fire performance
 14 for construction products excluding floorings and linear
 15 pipe thermal insulation products."
 16 If you look just down the screen, you can see that
 17 there are various classes ranging from A1 at the top to
 18 F at the bottom; yes?
 19 A. Yes.
 20 Q. There are various classes that rely not on one single
 21 test, but a combination of tests.
 22 A. Yes.
 23 Q. That's true of class B as well, isn't it?
 24 A. Yes, it is.
 25 Q. You have two there: EN 13823 and also EN ISO 11925—2.

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1 Now, 13823 is the single burning item, or SBI, test,
 2 isn't it?
 3 A. Yes, it is.
 4 Q. Do you agree that the SBI test was in basic terms
 5 introduced in order to replace the room corner test by
 6 providing a method by which the results of that test
 7 could be inferred without incurring the same cost in
 8 time and money?
 9 A. No.
 10 Q. No, you don't agree?
 11 A. No, I don't. The room corner test was the reference
 12 scenario which was used for the development of the
 13 single burning item test. It was never intended, as far
 14 as I'm aware, that the route to classification would be
 15 using the ISO 9705 test method. It was a reference
 16 scenario.
 17 Q. And the reference — I think this is right — remained,
 18 didn't it, a fire within a room?
 19 A. Yes, it did.
 20 Q. It did?
 21 A. Yes.
 22 Q. Did you ever yourself consider whether that test was
 23 useful for assessing fire behaviour in circumstances far
 24 removed from the test scenario, for example on the
 25 external face of a high-rise building?

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1 A. Yes, I did consider that, and it clearly is not suitable
 2 for that, and much of the work in Europe has focused
 3 very much on the identification of relevant reference
 4 scenarios which then form the basis for the development
 5 of a European test standard.
 6 Q. Well, let's just break that down a little bit, if we
 7 may.
 8 A. Yes.
 9 Q. First, when did you consider or stop to consider the
 10 suitability of the single burning item test for the
 11 external face of a high-rise building?
 12 A. Sorry, could you repeat that?
 13 Q. Well, I asked you whether you'd ever considered whether
 14 the test was useful —
 15 A. Yes.
 16 Q. — for assessing fire behaviour in circumstances far
 17 removed from the test scenario —
 18 A. Yes.
 19 Q. — namely, by example, external face of a building, and
 20 you said you did. My question is: when?
 21 A. I don't know exactly when, but from the time that
 22 I became involved in the European system, it was very
 23 evident of — you know, the way that the test standard
 24 for the single burning item test, et cetera, was being
 25 developed in relation to reference scenarios, and there

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1 were discussions at the outset that a reference scenario
 2 was required for external fire performance as well.
 3 Q. Was that at the time when you were looking at
 4 harmonisation in 2000 and 2001?
 5 A. Yes. I mean, the work obviously went on for very many
 6 years and I wasn't involved in it during that whole
 7 period. It started, I think, in 1989, something like
 8 that, and, you know, other colleagues had been involved
 9 in that. But yes, I think I became involved around
 10 2001.
 11 Q. And what made you think at the time that the single
 12 burning item test was not useful for assessing fire
 13 behaviour in relation to any element of an external face
 14 of a high-rise building?
 15 A. Well, it relied on the classification derived from the
 16 ISO 9705 room corner test, which was internal linings
 17 within that room, and, you know, it was very — there
 18 was a correlation derived between that one and the
 19 results from the single burning item test, to the extent
 20 that that was used to then define the class limits which
 21 you now see in this table in front of you, so — and
 22 that was related to whether the room flashed over or
 23 not.
 24 Q. Yes. It's about flashover, isn't it?
 25 A. Yes, it is.

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1 Q. During that process, harmonisation or later, did you
 2 ever say, in very, very simple, almost lay terms, if
 3 I may, "Look, why have we got a test based on flashover
 4 being applied to the external build-up of a high-rise
 5 building"?
 6 A. Not in those terms, no. But, I mean —
 7 Q. Why is that?
 8 A. — it was well understood through the fire sector in the
 9 UK and in Europe that the whole premise of the
 10 classification systems were based on reference
 11 scenarios, and there's a European guidance document that
 12 exists that sort of explains all of that.
 13 Q. In your own mind, were you confident at all times that
 14 government understood what you've just told us?
 15 A. Yes.
 16 Q. So Anthony Burd, Brian Martin, Bob Ledsome, as far as
 17 you know —
 18 A. Well, I don't know about Bob Ledsome. I mean, I never
 19 really had any contact with Bob.
 20 Q. But Anthony Burd, Brian Martin?
 21 A. Yes.
 22 Q. Right.
 23 Now, on the concept of limited combustibility,
 24 again, this may be oversimplifying it, but could you
 25 just tell us your understanding of that term?

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1 A. Well, basically you can claim that your product, your
 2 material, is of limited combustibility if you have
 3 carried out the tests as defined in the Approved
 4 Document B and achieved the pass criteria.
 5 Q. And —
 6 A. And it's a term that — you know, it's defined within
 7 that context.
 8 Q. And Approved Document B, it's table A7, I think, isn't
 9 it?
 10 A. Yes.
 11 Q. Again, if this is an oversimplification, please tell me,
 12 but is it the case that in the Euronorms, a limited
 13 combustibility is achieved by attaining A1 or A2
 14 classes?
 15 A. A2.
 16 Q. A2. Well, A1 —
 17 A. Wouldn't necessarily achieve limited — well, it's
 18 non-combustible, in effect.
 19 Q. It's non-combustible.
 20 A. Yes.
 21 Q. Exactly, A2 or better.
 22 A. Yes.
 23 Q. Right. But B, C and on down are not materials of
 24 limited combustibility?
 25 A. Correct.

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1 Q. Was there a UK class, a national classification or
 2 standard for limited combustibility? There was, wasn't
 3 there?
 4 A. Yes, that's what I just explained. I mean, it's how —
 5 it's linked to the results that you get in the BS 476,
 6 part 4 — not part 4, part 11.
 7 Q. 11. It's 11, isn't it?
 8 A. Yes. Part 4 for non-combustibility.
 9 Q. Yes, and part 11 is what's mentioned in table A7,
 10 I think.
 11 A. Correct.
 12 Q. Did you know and were you clear in your own mind
 13 throughout your time at the BRE that a classification to
 14 class 0 and a classification of limited combustibility
 15 were different?
 16 A. Yes.
 17 Q. Yes. And can you explain the difference?
 18 A. Well, for a start, you can only claim each of the
 19 relevant classes dependent upon the outcomes from the
 20 test that you have carried out. So you carry out
 21 a different set of tests for class 0 than you do for
 22 limited combustibility.
 23 Q. But you —
 24 A. So —
 25 Q. Sorry.

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1 A. Sorry, go on.
 2 Q. Yes, and are those differences the differences between
 3 national class 476—11 for limited combustibility as
 4 opposed to BS 476—6 and 7 —
 5 A. Yes, absolutely, yes.
 6 Q. — for class 0?
 7 A. Yes.
 8 Q. And in the Euronorms — they're on the screen, so we can
 9 keep to them —
 10 A. Yes.
 11 Q. — A2 or better as opposed to B.
 12 A. Yes.
 13 Q. Slightly different tests or make—up of separate tests.
 14 A. Mm—hm.
 15 Q. Yes.
 16 It's right, isn't it, also, I think, that class 0
 17 was always defined as being achievable in respect of
 18 a material or the surface of a composite product if it
 19 achieved limited combustibility?
 20 A. I don't know whether it always was.
 21 Q. Do you know when it first was?
 22 A. No.
 23 Q. We may look into that —
 24 A. Yes.
 25 Q. — in a little bit more detail later on.

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1 Has there been any stage in your career when you
 2 were unsure about the definitions or meanings or
 3 relationships between class 0 and limited
 4 combustibility?
 5 A. No.
 6 Q. I mean, listening to you today, it sounds like it's
 7 always been obvious meat and drink to somebody in your
 8 position at the BRE; is that fair?
 9 A. I mean, insofar as it's clearly defined in the approved
 10 documents, then yes, I suppose it is, it's always been
 11 clear.
 12 Q. Have you ever been aware at any time in your career, up
 13 to and including 2017, of others confusing or conflating
 14 the concepts of class 0 on the one hand and limited
 15 combustibility on the other?
 16 A. Not that I was aware of, no.
 17 Q. Not in the BRE?
 18 A. No.
 19 Q. Not in government?
 20 A. No.
 21 Q. Not in industry more widely?
 22 A. No, not that people ever came to me to discuss that, no.
 23 Q. Was it always your view, looking at the converse, that
 24 the UK construction industry always clearly understood
 25 the difference between those concepts?

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1 A. I had no reason to believe they didn't.
 2 Q. Right. So you never had any experience, you never saw
 3 anything, which might lead you to think that industry
 4 had confused or conflated class 0 with limited
 5 combustibility?
 6 A. No. No.
 7 Q. Did anybody ever come to you from government or other
 8 bodies, trade bodies, industry bodies, and draw to your
 9 attention the fact that there might be such a confusion?
 10 A. Not that I can recollect.
 11 Q. I want to ask you about Knowsley Heights, a fire in
 12 Liverpool, 5 April 1991. If I'm wrong about the date,
 13 please correct me.
 14 Can I take it that you are or were aware of that
 15 fire?
 16 A. I wasn't at the time. I was on maternity leave during
 17 1991, so I wasn't involved at all in the fire
 18 investigation or whatever. As I say, my area of work at
 19 that time was on the computer modelling and fire
 20 dynamics research work.
 21 Q. When did you first come to learn of the Knowsley Heights
 22 fire?
 23 A. I guess — I don't know the exact date, but it would
 24 have been probably around the time that the second
 25 edition of BR 135 was being drafted.

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1 Q. So that would have been just before or in 2003?
 2 A. Yes, around that sort of time.
 3 Q. Right. What brought it to your attention, do you
 4 remember?
 5 A. It would probably have been — and I don't recall
 6 directly, but probably been around discussions that
 7 I might have had with Sarah, for example, Sarah Colwell.
 8 Q. Did you read the reports about that fire at that time?
 9 A. No.
 10 Q. You didn't?
 11 A. No.
 12 Q. Now, again, correct me, please, if I've got this wrong,
 13 but in 1988, Knowsley Heights had been refurbished and
 14 overclad as part of a pilot scheme between the FRS and
 15 the Estates Action scheme designed to improve energy
 16 efficiency and conditions in existing high—rise
 17 buildings. Do you know that?
 18 A. No, I didn't know that.
 19 Q. You didn't know that. Can I take it that you had no
 20 involvement in any aspect of that programme at the time?
 21 A. No, I didn't.
 22 Q. Have you ever subsequently heard that programme being
 23 discussed within the BRE or anywhere else?
 24 A. No, other than very recently in the context of,
 25 you know, the evidence to the public inquiry.

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1 Q. Now, I want to show you a document and see if you can
2 help me with it.
3 Can we go, please, to {INQ00014755}. Now, this is
4 a manuscript document. It's a handwritten note to
5 a Mr Sage from Lyn, and it bears the date at the top, if
6 you can see, it's 11 April — in fact, it's at the
7 bottom, I think — 11 April 1991. The date doesn't
8 particularly matter. The month may be more important.
9 It's April 1991.
10 It's not a particularly easy document to read, so
11 I just want to show you what it says, where relevant,
12 and it starts with a little 1 in the margin:
13 "1. You will wish to be aware of Alison Curtis's
14 comments on the recent fire."
15 First of all, do you know anybody called
16 Alison Curtis who might —
17 A. No.
18 Q. — have had anything to do with the fire? No.
19 Second, it says:
20 "2. We have received via HMEA, a request from
21 M St Press Office to play down the issue of the fire.
22 Our briefing for S of S is purely factual and as far as
23 I am aware Knowsley will not be making an issue of the
24 fire."
25 Now, first, have you ever seen this document before?

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1 A. No.
2 Q. Now, we know from a BRE document that I'm going to show
3 you shortly that, in fact, Alison Curtis came from
4 housing management and estates action at the DoE at the
5 time.
6 A. Okay.
7 Q. Have you ever heard anybody discussing this fire,
8 Knowsley Heights, in these terms or anything similar?
9 A. No, I haven't.
10 Q. So you never heard anybody discussing a request from
11 government to play the Knowsley Heights fire down?
12 A. No, no, and —
13 Q. Right.
14 A. — I mean, around that time, I would not have been
15 involved in the fire investigation —
16 Q. I see.
17 A. — activities at all.
18 Q. In the light of that answer, let's see how we go with
19 the next few questions.
20 We know — and correct me again — that the Knowsley
21 fire was investigated by the BRE and a report was
22 produced in November 1992 under the Investigation of
23 Real Fires contract. Did you know that?
24 A. No, not until —
25 Q. Not at the time?

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1 A. No, I didn't, no.
2 Q. Right. Can we look at it. It's {BRE00035385}. There
3 is the first page of it.
4 Do we take it that you had no involvement into any
5 aspect of the BRE's investigation into this fire?
6 A. Correct.
7 Q. And no involvement in any aspects of the report
8 produced?
9 A. That's correct.
10 Q. Do you remember whether you've ever read this document?
11 A. To my recollection, no, I have not.
12 Q. Even in preparation to give evidence here?
13 A. I may have ... I did help in terms of pulling all of
14 these documents together so that they could be
15 photocopied and submitted to you in evidence.
16 Q. Right.
17 A. But, no, I didn't sit down and sort of read every page
18 of those.
19 Q. Well, let's take it in stages. Let's see how we go.
20 Can we go, please, to page 3 {BRE00035385/3},
21 paragraph 5, under the heading "The building", and it
22 refers to the 1988 refurbishment to reduce energy
23 consumption, and then if you look at paragraph 6, which
24 I think has been cut off on the left — hand side, it says,
25 in the second paragraph under the words "The building"

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1 in the third line:
2 "The 1988 scheme involved the use of a Class 0 GRP
3 rainscreen cladding on aluminium support rails."
4 Then it goes on, after the reference there to Gunac,
5 and it says that:
6 "Cavity barriers were not fitted to allow
7 unrestricted air movement and under the DOE/BRE guidance
8 at the time could be omitted where the cladding system
9 was non-combustible."
10 Were you aware that Knowsley Heights had been clad
11 in class 0 GRP rainscreen?
12 A. Not at the time, no.
13 Q. Not at the time, okay.
14 If I asked you detailed questions about this report,
15 I take it from your answers that you wouldn't be able to
16 help me very much?
17 A. No, I'm afraid I can't. I mean, the person that would
18 be able to, potentially, is Martin Shipp, may have a —
19 Q. Right.
20 A. — better knowledge and understanding of this.
21 Q. So far as you're concerned, we can take this as read?
22 A. Pardon, sorry?
23 Q. So far as you're concerned, we can take this document as
24 read?
25 A. Yes. I mean, I've got no comments that I can make on

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1 it ——
 2 Q. Right. Would it be right to say ——
 3 A. — (inaudible) the time.
 4 Q. I'm so sorry.
 5 Would it be right to say that, in terms of external
 6 fire spread, the fire at Knowsley Heights at the time
 7 was considered to be a major fire event and one
 8 discussed and referred to in various pieces of research
 9 on external fire spread over the following years?
 10 A. Yes, I believe so.
 11 Q. And that would include BRE research?
 12 A. Yes, potentially.
 13 Q. Yes.
 14 Let's look at your statement, then, please, page 8
 15 {BRE00005624/8}, paragraph 24. At paragraph 24 you say
 16 this:
 17 "Following a fire in a refurbished block of flats in
 18 Liverpool in 1991, it was accepted that a large—scale
 19 fire test method was needed to provide a better means
 20 for assessing and controlling the potential fire hazards
 21 associated with external cladding systems. That test
 22 would involve the complete system installed as closely
 23 as possible to what would actually be installed onto
 24 a building. This was clear recognition that it was not
 25 possible to rely on small—scale fire test data on

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1 individual elements, materials or components in
 2 a cladding system, as a means to try to predict and
 3 thereby control the fire performance. Reliance on small
 4 scale fire tests had been tried and had been shown to be
 5 inadequate."
 6 Now, is the fire that you're referring to there in
 7 the first line of that paragraph the Knowsley Heights
 8 fire?
 9 A. Yes, I believe so.
 10 Q. When you say it was accepted that a large—scale
 11 fire test method was needed, who was it accepted by?
 12 A. That was in relation to the work that then followed on.
 13 Q. Who was it who accepted the need for a large—scale
 14 fire test?
 15 A. Presumably the government department, as well as the
 16 research staff that were working in this area at BRE.
 17 Q. Right. You say presumably; do you know?
 18 A. Well, I mean, I don't know the individuals precisely
 19 that would have been involved in that decision, but
 20 judging by the fact that that is the direction that the
 21 work took, then clearly there was an acceptance that
 22 that was the right direction to be going in.
 23 Q. I see. Do you know when that acceptance was —— when was
 24 that accepted? Was there a moment when people in the
 25 BRE or in government to your knowledge realised or

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1 thought that a large—scale test was required?
 2 A. Well, I think it was first flagged prior to this fire,
 3 in fact, in 1988, in the first edition of BR 135, and
 4 then obviously there was the follow—on work that was
 5 then conducted after this fire by Raymond Connolly and
 6 Tony Morris, that then, you know, continued through the
 7 1990s, really.
 8 Q. Was there a sense in which, although in 1988 the first
 9 edition of BR 135 had come out, there wasn't a general
 10 acceptance that a large—scale fire test method was
 11 needed, but the Knowsley Heights fire was the catalyst
 12 for the acceptance of that.
 13 A. Yes, I would say so.
 14 Q. I see.
 15 A. I mean, the BR 135 in 1988 was sort of flagging trends
 16 that had been seen and issues that were potentially
 17 occurring and, you know, the follow—on work and the
 18 funding to enable that followed through the 1990s.
 19 Q. Right.
 20 What did you understand at the time you became
 21 familiar with the Knowsley fire about what the
 22 combustibility of the elements of the cladding system
 23 was? Was it non—combustible, limited combustibility,
 24 combustible? Do you know?
 25 A. It was combustible.

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1 Q. Was that why it was then that there was acceptance of
 2 the need for a large—scale fire test method?
 3 A. Yes, I believe so.
 4 Q. You say that a large—scale test was needed "to provide
 5 a better means for assessing and controlling the
 6 potential fire hazards associated with external cladding
 7 systems". A better means than what?
 8 A. The small—scale fire test method. So the class 0
 9 methodology had been shown to not be applicable within
 10 this case.
 11 Q. Right, so the BS 476—6 and 7 tests on which guidance for
 12 the fire safety of external cladding systems was based?
 13 A. Yes.
 14 Q. So the route to class 0?
 15 A. Yes.
 16 Q. Right.
 17 Now, focusing on the section of paragraph 24 where
 18 you say "This was clear recognition", do you see you
 19 say:
 20 "This was clear recognition that it was not possible
 21 to rely on small—scale fire test data on individual
 22 elements, materials or components in a cladding system,
 23 as a means to try to predict and thereby control the
 24 fire performance."
 25 Clear recognition, you say. By whom? By whom was

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1 this clearly recognised?
 2 A. By the researchers at what was the Fire Research
 3 Station, and, given that they were working for the
 4 government customer, the government customer also.
 5 Q. Right. So does that tell us that at some point before
 6 2002 or 2003, at least so far as you know, and at a time
 7 after 1991, the government was aware that small-scale
 8 fire tests were an inadequate basis for trying to
 9 predict and control a fire in the external cladding of
 10 a high-rise building?
 11 A. Yes, I think the evidence was there from that one fire
 12 incident.
 13 Q. Was that a consensus or were there dissenting voices?
 14 A. I don't know.
 15 Q. Now, we don't see any evidence in the BRE November 1992
 16 report on Knowsley of this clear recognition of which
 17 you speak. Do you know whether there is a document you
 18 have ever seen within the BRE which actually records
 19 that clear recognition?
 20 A. No, I don't recall seeing a document in those terms.
 21 Q. Right. But you say it was widely shared, was it, within
 22 the BRE and, so far as you know, within government?
 23 A. Well, the person that was leading on this work at the
 24 time was Tony Morris in the Fire Research Station, and,
 25 you know —

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1 Q. But it was your impression anyway —
 2 A. Yes.
 3 Q. — there was this clear recognition?
 4 A. Yes, absolutely.
 5 Q. Yes.
 6 Does it follow that from your perspective it would
 7 be extremely dangerous to rely on the data generated by
 8 a BS 476-6 and 7 test to try to predict the fire
 9 performance of external cladding systems or to control
 10 the fire hazards associated with them?
 11 A. Well, at that time, I wouldn't have had a particular
 12 view, but now and looking at that now, yes, of course.
 13 Q. At that time, I think you probably mean at some point
 14 between 1991 and 2002 or 2003.
 15 A. Yes.
 16 Q. Did there not then come a time after 2003, say, with the
 17 publication of BR 135, edition 2, that you espoused the
 18 views to which you speak here in paragraph 24 of your
 19 statement about small-scale tests?
 20 A. Yes, I mean, I think it was — and it was absolutely my
 21 view and I think that of other colleagues that the way
 22 to control the fire performance of the cladding system
 23 would be to use the large-scale test method and the
 24 classification.
 25 Q. This is rather a broad question, forgive me, but did you

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1 ever think to point out to government in the clearest
 2 possible terms that the retention of class 0 in ADB, at
 3 least from 1992 if not earlier, in relation to the
 4 external wall, was dangerous?
 5 A. Not in those terms, no.
 6 Q. Why is that?
 7 A. Because ADB provided a range of measures, and it was not
 8 solely relying on class 0, it relied on also materials
 9 of limited combustibility, et cetera.
 10 Q. That's not right, is it? From 1992, at least, in the
 11 1992 edition, if one looked at, from recollection, 12A
 12 of ADB, it referred to the definition of class 0 being
 13 achievable by one of two routes: one was limited
 14 combustibility and the other alternative route was
 15 achieving the correct test result under 476-6 and 7.
 16 A. Yeah, so I wasn't involved in Approved Document B back
 17 in 1992 either, but, you know, when I was involved from
 18 2001 onwards, then, you know, there was a clear
 19 understanding of the direction that this was heading, or
 20 I believed there was a clear understanding of the
 21 direction that this was heading, with the department.
 22 Q. And what direction was that?
 23 A. In the sense that they were going to reference based on
 24 the work of the government — House of Commons select
 25 committee and the inquiry after the Garnock Court fire

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1 to basically produce a standard and a classification
 2 system that could then be used for external cladding
 3 systems, and it would be more representative and would
 4 be an adequate means for controlling the hazards
 5 associated with those cladding systems.
 6 Q. Nonetheless, you never said, did you, in all the years,
 7 whether at the time of the select committee
 8 investigation and report or the subsequent harmonisation
 9 process, you never said to government, "You need to get
 10 class 0 out of ADB in relation to external wall panels
 11 because it relies on small-scale tests and is therefore
 12 dangerous"?
 13 A. No, I didn't, but then I wasn't involved in the
 14 parliamentary select committee either, so I was —
 15 MR MILLETT: We will come back to that.
 16 SIR MARTIN MOORE-BICK: Sorry, had you finished?
 17 A. Yes, sorry, yes.
 18 MR MILLETT: We will come back to that. I apologise for
 19 overspeaking.
 20 In paragraph 24, in the last line, you say:
 21 "Reliance on small scale fire tests had been tried
 22 and had been shown to be inadequate."
 23 Had they been shown to be inadequate by the fire at
 24 Knowsley Heights? Is that what you're referring to?
 25 A. Well, and in the experimental programme that followed.

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1 Q. What, the —
 2 A. The experimental programmes that followed that work.
 3 The research projects, basically .
 4 Q. Right. I'm asking you this — I mean, I think there are
 5 a number, but are you referring to the Connolly tests or
 6 are you referring to —
 7 A. Yes, and there were a number, so there was a growing
 8 body of evidence.
 9 Q. Right.
 10 Did you give any consideration, apart from your
 11 conclusions about the dangers of reliance on small-scale
 12 test data after Knowsley, to the possibility of
 13 restricting combustibility of external cladding systems?
 14 A. Restricting combustibility? In what way? I'm not sure
 15 I follow what you mean.
 16 Q. Well, insofar as combustibility is different from
 17 class 0 or limited combustibility or non-combustibility
 18 are separate concepts, did you ever give any
 19 consideration to whether or not external cladding
 20 systems should be limited by reference to combustibility
 21 standards?
 22 A. All right. So, I mean, my view is and still remains
 23 that combustibility, non-combustible, is a binary
 24 concept. A material is either tested and is
 25 non-combustible or it's combustible.

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1 Q. Yes.
 2 A. And limited combustibility is a degree of
 3 combustibility. So, you know, it's not ... yeah.
 4 That's my view, and it always has been, and that's the
 5 way it was always explained to me and the way that I've
 6 always understood it.
 7 Q. Let's turn, then, to the work of Dr Raymond Connolly in
 8 1994, which I think was the first, perhaps, major set of
 9 tests done on full-scale test structures.
 10 Now, just on Dr Connolly, it's right, I think, that
 11 he joined the BRE in 1991; yes?
 12 A. I couldn't confirm the date precisely. I mean, if
 13 that's what he said, when he joined, I've no reason to
 14 disagree with that.
 15 Q. Yes. I mean, I think he was a co-worker of yours.
 16 A. No, I never worked with Raymond Connolly, no.
 17 Q. You never worked with him? Right, okay. He left,
 18 I should just say, in 1996, which might help you.
 19 But I want to ask you about {RCO00000001}, please,
 20 and this is his report. Now, this is a document we got
 21 from him, not the BRE, I should just tell you. It's
 22 dated April 1994, and it's entitled, "Investigation of
 23 the behaviour of external cladding systems in fire —
 24 report on 10 full-scale fire tests".
 25 Did you have any involvement in any aspect of the

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1 testing or preparation of this report?
 2 A. No, I didn't.
 3 Q. Have you ever read this report before?
 4 A. I've read a partial copy fairly recently, because that
 5 is all that BRE had in its archive.
 6 Q. Right. So you didn't read it at the time?
 7 A. No. I would have had no reason to. I wasn't working in
 8 that area.
 9 Q. Do you know what caused it to be commissioned by the
 10 DOE?
 11 A. I'm assuming it was to do with Knowsley Heights.
 12 Q. Are you aware of the findings in this report or not at
 13 all?
 14 A. I'm aware of the conclusions.
 15 Q. Right.
 16 Although you weren't involved in the testing or the
 17 report at the time, were you aware it was going on?
 18 A. I suppose vaguely. I mean, the thing to mention here is
 19 that all of this work, large-scale work, was done up at
 20 the Cardington laboratory, which was remote from the
 21 headquarters, if you like, of the Fire Research Station.
 22 So, you know, unless you were up there, you wouldn't
 23 know or be aware of exactly what was going on up at
 24 Cardington.
 25 Q. Was this report disseminated internally and available to

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1 everybody at the BRE or was it —
 2 A. Not that I'm aware of, no.
 3 Q. Not. Do you remember discussing at least the
 4 conclusions with any of your colleagues at the time or
 5 later?
 6 A. No, no, I didn't see it at the time. No.
 7 Q. Are you able to tell us why, when the Inquiry asked for
 8 a copy of this document from the BRE, there was none in
 9 the BRE's possession?
 10 A. I can only assume that obviously Raymond Connolly had
 11 left the business and he would have handed all of this
 12 information over to Tony Morris at the time, one —
 13 I would assume, and then Tony Morris equally left the
 14 business. And over the years, documents get moved
 15 around and documents get cleared out as well, you know,
 16 to make space. You know, we don't — you don't have
 17 an infinite archive available, so from time to time
 18 people will clear things out, and if it was in a bundle
 19 of information, you know, it may have got inadvertently
 20 thrown away.
 21 Q. Can we look, please, at {CLG10003883}. This is an email
 22 on your screen in an exchange in July 2009 between you
 23 and Brian Martin, with Anthony Burd and Sarah Colwell
 24 copied in. We can see on the screen your email of
 25 8 July 2009 at 2.27 pm, and in the first paragraph you

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1 say this:
 2 "Hi Brian
 3 "I tried to call you earlier but you were not
 4 available. I have spoken with Sarah this morning and
 5 she has retrieved the attached report which reports that
 6 'there were over 3,000 tower blocks in the UK
 7 representing about 225,000 homes capable of housing
 8 almost 1 million people'. This is based upon a Client
 9 report written by Ray Connolly in 1994. Sarah has also
 10 located a CD with all the reports from the External
 11 cladding project. Please let us know if you would like
 12 a copy at this stage?"
 13 Now, were you sending Dr Connolly's 1994 research
 14 report itself to Brian Martin or were you sending
 15 a different document which quoted from or referred to
 16 Dr Connolly's report?
 17 A. I don't recall. I don't know.
 18 Q. Do you know why you were sending whatever it was you
 19 were sending at the time?
 20 A. No. Is there any other emails in the chain?
 21 Q. Well, because I've lost my remote system at the moment,
 22 I can't tell you, but I can ask you this question: this
 23 email was sent five days after the fatal fire at
 24 Lakanal House which happened on 3 July 2009.
 25 A. Right.

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1 Q. My question is: was it the fire at Lakanal House that
 2 prompted this discussion?
 3 A. It may well have been, but I can't confirm that.
 4 Q. Had Brian Martin, do you remember, asked for some
 5 particular information from the BRE in the wake of
 6 Lakanal?
 7 A. It looks as though he was asking if we had anything
 8 associated with the number of tower blocks, et cetera.
 9 Q. Right, I see.
 10 Can we take it from the use of your word "retrieved"
 11 that, by 2009, Dr Connolly's 1994 report wasn't readily
 12 available, at least to you and Sarah Colwell?
 13 A. That may well have been the case.
 14 Q. Right.
 15 A. But I don't recall that.
 16 Q. Can we go, please, to Raymond Connolly's statement.
 17 That's at {BRE00047667/6}, please. About six lines up
 18 from the bottom of the page, he says, "It was always",
 19 on the right-hand side, can you see?
 20 A. Yes, yes.
 21 Q. He says:
 22 "It was always obvious to me from the Department's
 23 consistent support/funding of the research being
 24 undertaken at BRE into external wall systems from 1992
 25 onwards that the Department was aware of potential

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1 limitations with their historical approach to the issue.
 2 The Department modified/improved their guidance between
 3 the 1985 and 1992 versions of Approved Document B in
 4 respect of external wall systems. However, the conflict
 5 between fire safety requirements (in terms of providing
 6 cavity barriers) and the need for ventilation of
 7 cavities to avoid dampness posed challenges for the
 8 Department. My recollection is that resolution of these
 9 conflicting requirements by employing a more holistic
 10 approach to fire safety design was one of the prime
 11 motivating factors behind the Department's support of
 12 the new research."
 13 Are you able to agree with what he says there?
 14 A. I don't know whether that was the main motivation for it
 15 or not. I'm not aware that it was to do with
 16 conflicting —
 17 Q. Right.
 18 A. — requirements.
 19 Q. Did you share the view in 1994 or after that, perhaps,
 20 that the department was aware of potential limitations
 21 with their historical approach to the issue?
 22 A. Yes, I think so.
 23 Q. Yes. What led you to that?
 24 A. Well, the very fact that they were continuing to fund
 25 further work in this area.

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1 Q. And what limitations in particular do you think the
 2 department was aware of in relation to their historical
 3 approach?
 4 A. The — basically the inadequacy, as we've already
 5 discussed, of the small-scale test methods.
 6 Q. Right.
 7 Now, did you understand that the principal objective
 8 of the work — and again, bearing in mind what you've
 9 told us about your familiarity with it — was to assess
 10 the effectiveness of installation of fire barriers in
 11 reducing the fire hazard?
 12 A. What, of Dr Connolly's work?
 13 Q. Yes, yes.
 14 A. Yes, I mean, I guess that was part of the issue.
 15 Q. If we stick with his statement, please, and go to page 9
 16 {BRE00047667/9}, paragraph 21, he says at (a) on that
 17 page, at the top of the screen:
 18 "The tests were designed to try to discriminate
 19 between different external wall systems in terms of
 20 their fire performance. The main focus was on
 21 developing the most appropriate heat source."
 22 Now, help us, heat source, does that mean the crib?
 23 A. Yes.
 24 Q. It does?
 25 A. Yes, it will do.

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1 Q. Does that accord with your understanding that that was
2 a main focus of his experimental work so far as you were
3 familiar with it?
4 A. I mean, it would obviously be part of what you had to do
5 en route to developing a methodology, and you would have
6 to look at, you know, what was relevant in terms of the
7 thermal exposure.
8 Q. Looking at (d), he says:
9 "I cannot recollect but likely to have been chosen
10 as being representative of systems commonly in use
11 within the industry."
12 Then if you look, please, at (g), at the very foot
13 of the screen, at the very end of the page, he says:
14 "The nature of the research proposal would likely in
15 my opinion to have been to identify a problem (in this
16 case real world fire incidents as exemplified by
17 Knowsley Heights and real world technical constraints
18 associated with the need to maintain open ventilated
19 cavities to avoid dampness) and to identify a potential
20 solution, i.e. a means of examining all of the relevant
21 variables in a holistic manner by means of a full-scale
22 test — rather than relying on the existing 'component by
23 component' rules, e.g. Class 0 sheeting and provision of
24 storey-level cavity barriers."
25 He goes on to say that test 2 was designed to be

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1 representative of, although not to replicate exactly,
2 the external cladding system used at Knowsley Heights.
3 Now, does all of that that I've just read to you and
4 told you accord with your understanding of the focus and
5 aim of Dr Connolly's work?
6 A. I can understand what he's saying there, and if that's
7 his account of the aim of the work, then I have no
8 reason to dispute that.
9 Q. If we look, please, at the next page of his statement
10 {BRE00047667/10}, paragraph 22(e), he says:
11 "I had no expectations that a 'reaction to fire'
12 rating of Class 0 would be sufficient to mitigate
13 against fire spread over the surface of the material in
14 the context of subject test. Class 0 is determined
15 based on what I would term loosely a 'bench' test (I say
16 this recognising that the BS 476:Part 7 radiant panel
17 test is not strictly speaking bench scale). Class 0 is
18 a surface-based measure of performance appropriate to
19 wall and ceiling linings and offers no information about
20 the combustibility of the material or its mechanical
21 integrity at high temperatures."
22 Now, I think, given your evidence earlier, Dr Smith,
23 you would agree with that last sentence?
24 A. Predominantly, although it is possible to have a product
25 that has a very thin coating that gets burnt away and

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1 then exposes the material or substrate beneath that, and
2 then of course you are actually carrying out the test on
3 the substrate, the material beneath that. So there are
4 a few, you know, exceptions to that.
5 Q. But generally speaking, your point about the
6 unreliability of the small-scale tests —
7 A. Yes. I mean, the key thing with the small-scale tests,
8 and in the case of class 0 and the part 6 and part 7
9 tests, is that you're unable to install them with
10 a representative fixing system. You can go as far as to
11 install them with a different substrate behind them or
12 with an air gap, but that's about as far as you can go.
13 So you can't replicate some of the, you know, important
14 design variables that are potentially important when it
15 comes to, you know, large-scale systems.
16 Q. Did you or the government consider, either before or
17 particularly after the Connolly 1994 work, whether
18 class 0 was an appropriate classification requirement
19 for external surfaces of a tall building, given the
20 nature of the tests and its origins as a measure of
21 performance for wall linings?
22 A. So I don't know what the government considered or what
23 they didn't, and, as I say, it wasn't until sort of 2001
24 when I became aware of this sort of work and, with the
25 involvement of a new research project in this area, that

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1 we gave any thought or consideration to it personally.
2 I mean, there may have been others at BRE or Fire
3 Research Station that did, of course.
4 Q. Now, just looking at test 2 — and I'll take this
5 quickly with you, Dr Smith, given your evidence about
6 your familiarity with this report — can we go, please,
7 to the report itself, {RCO00000001/12}. Under the
8 heading at the very foot of your screen, "Fire
9 properties of sheet cladding materials", it says:
10 "The polyester bound sheet and the thermosetting
11 resin bound sheet achieve a Class 0 rating (as described
12 in Approved Document B of the Building Regulations 1991
13 {2}) on both the front and rear faces. A Class 0 rating
14 is derived from performance of the material in both the
15 surface spread of flame and fire propagation tests
16 described in BS.476 Parts 6 & 7."
17 In fact, it's the other way round, but it doesn't
18 matter.
19 A. Yes.
20 Q. Then if you go, please, to page 16 {RCO00000001/16}, we
21 can see the report for test 2. That's where it starts,
22 and you can see it says, "Polyester bound sheet with no
23 fire barriers", and there is the system description.
24 Then if you go, please, to page 18 {RCO00000001/18},
25 in the last paragraph on that page, these are the

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conclusions from the test 2 test, and it says this:

"There was unlimited vertical spread of the fire over the full height of the test facility. The flames would probably have spread to upper storeys had they been present. The horizontal spread of fire was limited however and it appears that the aluminium sheeting rails are effective fire barriers, even though they do melt. It is clear that the reaction to fire properties of the sheeting material do not give a true indication of the potential fire hazard. There is clearly a need for some form of fire barrier protection with the polyester bound sheet cladding."

At page 46 {RCO0000001/46}, if we go to that, please, in the fourth paragraph down in the report, it says:

"It is clear that the BS.476 Parts 6 and 7 tests do not accurately reflect the fire hazards that may be associated with cladding systems. Reasons may include the fact that the flame movement in a real cladding fire is in the vertical direction, as opposed to the horizontal direction in the test."

Then the last paragraph on that page says:

"It is clear from the experimental work undertaken at Cardington that a cladding material achieving a Class 0 rating may suffer extensive surface burning.

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This burning often spread to the top of the test building (some 9 metres) and would have spread further if possible. Few fire barrier systems successfully reduced the fire spread."

Now, he is, isn't he, expressly saying here that class 0 classification was not a reliable way in which to assess the fire hazards presented by external cladding panels, at least on the basis of the results of test 2 here?

A. That's my reading of that, yes.

Q. Yes. Do I take it from your evidence that you've given so far that you wouldn't express surprise at that conclusion?

A. No, given that this is part of the evidence that I would use to derive that view as well, so yeah. So it's a bit tautological.

Q. Yes, I see. I understand that.

In his witness statement — and I'm summarising, there is no need to go back to it — Dr Connolly tells us that this was not a new discovery, and that there was no reason that it would have needed any kind of emergency response from the government.

Now, did you, for your part, at any stage consider the reliance in Approved Document B on class 0 through diagram 40, as it became, on small-scale testing to be

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a matter which needed to be addressed as a matter of urgency?

A. I mean, I wouldn't have had a view at the time that this report was written, because, as I say, I wasn't involved in this work at all.

Q. No. But later, did you ever come to the conclusion that reliance in Approved Document B and particularly diagram 40 on class 0 was something which needed to be addressed urgently?

A. I mean, I think we came to the view that the fire performance of cladding systems in general did need to be addressed, and that was obviously promulgated as well by the Garnock Court fire, and — as I say, and that's what led to the work that followed on from that, and that was done as quickly and expediently as possible, for the very reason that that would yield a means by which those hazards could be controlled better.

Q. Well, it would yield a means by which those hazards could be controlled better if they were the means — if they were the sole route to compliance with ADB. But they weren't, were they? Class 0 remained one of the linear routes to compliance.

A. On its own, it wasn't a means for compliance. You couldn't just test the outer surface and ignore everything else in a cladding system. That's not my

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reading of the approved document.

Q. Well, we're getting ahead of ourselves.

A. Okay.

Q. Would you accept this much: class 0 remained in diagram 40 and in what became 12.6 of Approved Document B right up until the time of the Grenfell Tower fire, it was never removed?

A. Yes, that's correct.

Q. And yet class 0, relying as it did on small-scale tests, which were known by you to be unreliable as a predictor of external fire spread and proven to be so by test 2 here.

A. Sorry, is that a question or a statement?

Q. Yes.

A. Yes, but, I mean, the content of the approved document is, in itself, something that BRE, even back when we were part of government, had very little autonomy over in terms of controlling that content. It always went through, as far as I understand it, a process, and I'm certainly familiar with the process that's been followed in more recent years, and ultimately the decisions are taken by the BRAC committee and the government of the day.

So, I mean, certainly when the European classes were introduced in 2002, there had been an expectation shared

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1 by, you know, a number of people, including myself, that
 2 the old national classes would all be removed at that
 3 stage. However, they were not, and that was a decision
 4 taken by BRAC, the department, et cetera, based on
 5 decisions and views around potential costs to industry
 6 if that happened, and cost/benefit analyses and that
 7 that were carried out.
 8 So, you know, there were higher decision-makers,
 9 I guess, that were dictating what could and couldn't be
 10 done.
 11 Q. Who were they?
 12 A. I wouldn't know. I mean, we weren't -- I was never
 13 involved in BRAC, I don't know what the recommendations
 14 were around that at the time, and ultimately, you know,
 15 as I've always understood it, the Secretary of State has
 16 to sign off on the approved documents before they're
 17 published. So these issues around cost to industry,
 18 et cetera, would have been debated within the department
 19 and the views formulated.
 20 Q. We will come back to that, I think, in due course, when
 21 we look at the harmonisation and your involvement in it
 22 in 2000 and 2001.
 23 For the moment, though, let's just look at what
 24 Dr Connolly says about cavity barriers. Can we please
 25 go to the report here at page 48 {RCO00000001/48}, just

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1 two pages on, and just look at one or two of his
 2 conclusions on that briefly.
 3 Paragraph 5, he says, under the conclusions:
 4 "The only fire barriers found to be adequate in
 5 effectively reducing the fire hazard were those which
 6 were substantially fixed to the masonry substrate and
 7 fitted independently of the aluminium sheeting rails."
 8 Then at paragraph 9, at the foot of the page, he
 9 says:
 10 "The nature of the fire barriers required to prevent
 11 fire spread depends on the nature of the cladding
 12 material itself. While certain types of fire barrier
 13 systems were found to be adequate with some sheeting
 14 materials, they were inadequate with others."
 15 Then 10, over the page {RCO00000001/49}:
 16 "10. The only fire barriers which substantially
 17 reduced the fire hazard require that the vertical
 18 sheeting rails be cut at regular intervals.
 19 Consequently such a barrier system may be unwieldy and
 20 expensive to fit in practice."
 21 Then at 11:
 22 "Any attempt to limit the fire hazard by
 23 specification of details of a satisfactory fire barrier
 24 system will prove very difficult without consideration
 25 of the nature of the cladding material itself. To

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1 decide on the necessary fire protection, each cladding
 2 system needs to be evaluated in its own right."
 3 Now, when you first saw this report, or perhaps even
 4 now, did you or do you agree with those four
 5 conclusions?
 6 A. I suppose my only concern with the conclusions as
 7 written and without seeing the rest of the report is
 8 it's not clear what fire barriers he's talking about and
 9 what types of fire barriers were actually tested, and
 10 given that this was back in 1994, how relevant that is
 11 now to practice today and the types of systems that are
 12 available today in terms of barriers, that would be my
 13 concern around that.
 14 Q. Do you think it's right to say that appropriate
 15 cavity barrier systems can only be decided by
 16 consideration of the specific cladding product with
 17 which they are to be used?
 18 A. In principle, yes.
 19 Q. Do you remember whether that aspect of the report was
 20 ever discussed by you or any of your colleagues at the
 21 BRE internally?
 22 A. I don't know.
 23 Q. What about with government, do you know?
 24 A. No, I don't know.
 25 Q. Finally on this, can I just ask you about what he says

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1 at page 49 under paragraph 12, where he says:
 2 "For the rational design of cladding systems, there
 3 is a clear need for full-scale testing of performance in
 4 fire. Such tests would help determine the adequacy of
 5 fire barrier systems when used in conjunction with
 6 a particular sheeting system."
 7 We covered this before, and I think you told us you
 8 agree with that.
 9 A. Yes.
 10 Q. Yes.
 11 We'll come on to discuss later the BRE's development
 12 of full-scale testing which culminated in BS 8414 part 1
 13 and then part 2, but just for now, do you know whether
 14 any consideration was given by the BRE or the department
 15 to any options other than the development of
 16 a full-scale test as a response to this work?
 17 A. I don't.
 18 Q. You don't?
 19 A. No.
 20 Q. So do we take it from that that there was no
 21 consideration given to restricting the combustibility of
 22 external cladding panels?
 23 A. I don't know.
 24 Q. We can see that the combustible nature of the rainscreen
 25 as an element in the external wall build-up is not

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1 directly addressed in Dr Connolly's 1994 report. Is it
 2 the case that it wasn't intended to address that problem
 3 or question, do you know?
 4 A. No, I don't know. But, you know, research, you present
 5 the results and the facts that you've unearthed and then
 6 you — you know, sometimes you reveal something that you
 7 didn't intend to reveal, but you don't — you know,
 8 you're open with that and that's exactly what's happened
 9 here. So it wouldn't matter, really, if that was
 10 an objective or not. If that's what the research showed
 11 then — and that's what's been reported, that is that.
 12 Q. Do I take it from that answer and, indeed, the other
 13 answers that you have been giving that from 1994 nobody
 14 at the BRE or within government or between the two ever
 15 considered either getting rid of class 0 or reinforcing
 16 the non-combustible nature of external cladding?
 17 A. I can't comment on that. I mean, as I say, the person
 18 that was leading on all of this research and that
 19 Raymond Connolly reported to was Tony Morris, and he had
 20 a regular dialogue with the department at the time, so
 21 I'm sure, you know, a number of these things probably
 22 would have been discussed. No reason to think they
 23 wouldn't have been. But, of course, there's no evidence
 24 to say one way or the other.
 25 Q. But I'm asking you about your recollection rather

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1 than —
 2 A. Well, I wouldn't — I have no recollection, because
 3 I just was not involved, so ...
 4 Q. I'd like to turn next to the development of Fire Note 3
 5 and the submission to the department, as it was then,
 6 the DETR.
 7 Can we please go to {BRE00005868}. There is
 8 Fire Note 3, and it is authored by Tony Morris,
 9 Sarah Colwell, David Smit and two others, including
 10 Mr Connolly himself, Ray Connolly there, who was
 11 a consultant.
 12 A. Okay.
 13 Q. It was published by the BRE I think in 1998; is that
 14 right?
 15 A. It will say when it was published on the inside cover.
 16 Q. If we go to page 2 {BRE00005868/2}, I think we can
 17 probably cure — yes, it says 1988. We can just see
 18 that there. Yes?
 19 A. Yes.
 20 Q. Yes.
 21 Now, in simple terms, is this right: it's a method
 22 being proposed here for full-scale testing of the fire
 23 performance of a cladding system?
 24 A. That's my understanding.
 25 Q. Did you have any involvement in any aspect of the

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1 development of Fire Note 3?
 2 A. No.
 3 Q. Do you know which team or division within the BRE was
 4 responsible for the development of Fire Note 3?
 5 A. Yes, it was the team that was led by Tony Morris.
 6 Q. Tony Morris' team, as we can see from the title.
 7 In 1998, you were head of the reaction to fire team,
 8 weren't you?
 9 A. Yes.
 10 Q. Yes.
 11 A. And computational simulation, yes.
 12 Q. And we can see, as I've just shown you — let's go back
 13 to page 1 {BRE00005868/1} — one of the authors of
 14 Fire Note 3 included Sarah Colwell, didn't it?
 15 A. Yes.
 16 Q. And you told us earlier that you oversaw Sarah Colwell's
 17 work from, I think, 1997 onwards.
 18 A. Yes.
 19 Q. So did that include her work on Fire Note 3?
 20 A. No.
 21 Q. Why is that?
 22 A. Because Tony Morris would have been the project leader
 23 on this, and as I explained earlier, if there were
 24 cross-departmental projects, then the people working on
 25 that project would report in to, you know, the project

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1 manager.
 2 Q. Did you see this report at all at the time?
 3 A. I don't recall seeing it at the time, no, and I would
 4 have had no reason to. I mean, if it was published in
 5 1998, the work would have been completed before that,
 6 and the draft report would have been published before
 7 that. I don't know how long before that, but — because
 8 it takes a period of time for them to be published in
 9 this way.
 10 Q. Do you know what Sarah Colwell's role on that project
 11 was?
 12 A. Not in detail, no, I don't.
 13 Q. Now, do you know what the specific circumstances or what
 14 the impetus was which led to the development of this
 15 test method?
 16 A. No, I don't.
 17 Q. Do you know whether it was developed in conjunction with
 18 industry or particular manufacturers?
 19 A. No, I don't.
 20 Q. Do you know how the specific performance criteria in
 21 Fire Note 3 were selected?
 22 A. No, I don't.
 23 Q. Do you know why no failure criteria were set for
 24 mechanical response?
 25 A. No, I don't.

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1 Q. Let's then move on to Garnock Court. That's a fire
2 which happened at Garnock Court in Irvine in Scotland on
3 11 June 1999, wasn't it?
4 A. Yes.
5 Q. I mean, you may not recall the precise date, but take it
6 from me that it was.
7 A. Yes, yes.
8 Q. You mentioned this fire in your statement at
9 paragraph 28 at page 9 {BRE00005624/9}. I don't think
10 I need to take you to that, but you mention the vertical
11 fire spread. Is that the fire you're referring to?
12 A. Yes.
13 Q. Were you aware at the time of the fire of the
14 circumstances of that fire?
15 A. No.
16 Q. You describe it in your statement as significant. Would
17 you agree that in the timeline, if you like, of the
18 history of fire events in the United Kingdom, it was
19 another major fire event on that timeline?
20 A. Yes, I would.
21 Q. And is that partly because it resulted in a fatality?
22 A. Yes, and the fact that the fire spread from — you know,
23 up the entire side of the building.
24 Q. Yes.
25 Now, like Knowsley Heights, Garnock Court was

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1 another local authority block of flats which had been
2 refurbished, wasn't it?
3 A. I believe so. I don't know all the details.
4 Q. Take it from me, in fact it was refurbished in 1991, the
5 year of the Knowsley fire —
6 A. Right.
7 Q. — and clad in GRP, glass—reinforced plastic panels.
8 A. Okay.
9 Q. I mean, were you aware of that at the time of the fire?
10 A. No.
11 Q. You weren't. We know that from the subsequent BRE
12 report. I can show it to you if you like, but —
13 A. No, no, that's fine.
14 Q. Yes, I think you agree that.
15 Do you remember when you first learnt about the
16 Garnock Court fire?
17 A. I would have been sort of vaguely aware, in the sense
18 that it led to the parliamentary inquiry and the
19 subcommittee sort of investigation, and I was aware that
20 obviously Sarah Colwell and Peter Field and Tony Morris
21 were going to give evidence —
22 Q. Yes, we'll come to that —
23 A. — to that.
24 Q. — shortly.
25 A. Yeah.

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1 Q. Before we look at that, did you know what GRP was?
2 A. Yes, I did know what GRP was.
3 Q. You'd heard of it?
4 A. Yes.
5 Q. Now, did you know that GRP was combustible?
6 A. I'm not sure I'd ever carried out any experiments with
7 GRP personally, but I would have expected it to have
8 been.
9 Q. Now, after the fire, the Inquiry has become aware that
10 the BRE investigated and produced, in fact, three
11 reports into the fire. Let me just tell you what they
12 are and we can identify them by reference.
13 The first was the report prepared for the
14 North Ayrshire Council, bearing the reference 79902,
15 dated 8 September 1999, and that is at {BRE00035377/2}.
16 We will have a look at it in a moment.
17 The second was prepared for North Ayrshire Council
18 and bears the reference 81310 and is dated 5 May 2000,
19 the reference to which is {BRE00035377/22}.
20 The third is a report from August 2000, I think in
21 fact dated August 2000, for the DETR, Anthony Burd, and
22 that's {BRE00035375}, and entitled the "DETR Framework
23 Project Report: Investigation of real fires, Project
24 number 76572 June 1999—April 2000".
25 Now, first, did you have any involvement in any

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1 aspect of the investigation into the fire at
2 Garnock Court.
3 A. No, I didn't.
4 Q. And what about any involvement in the preparation of any
5 of the three reports I've referred to?
6 A. No, I didn't.
7 Q. Do you know who was involved in that work?
8 A. In terms of the fire investigation? I don't, off the
9 top of my head, no. I mean —
10 Q. You don't?
11 A. No.
12 Q. Have you read these reports before?
13 A. No.
14 Q. You have never read them?
15 A. No.
16 Q. Now, there is one aspect of the reporting of this fire
17 that we are keen to get the BRE's assistance on, and
18 we've already asked a number of witnesses. Let me ask
19 you about it.
20 I'd like to have up, please, on the screen the first
21 of the two reports prepared for North Ayrshire, namely
22 {BRE00035377/2}, and also on the screen at the same time
23 the report submitted to the department in August 2000
24 under the Investigation of Real Fires framework at
25 {BRE00035375}. Now, if we can have them both up on the

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1 screen at the same time, please.
 2 So the left—hand side, as you can see, is the
 3 September 1999 report to North Ayrshire, and the
 4 right—hand side is the August 2000 report under the
 5 framework Investigation of Real Fires project prepared
 6 for Anthony Burd.
 7 Now, just in general terms, you may have heard the
 8 questions put to previous witnesses, but the reports to
 9 North Ayrshire Council make numerous references to
 10 class 0, and in particular to the fact that the cladding
 11 at Garnock Court should have had a class 0
 12 classification, whereas the BRE's Investigation of Real
 13 Fires report to the DETR makes no mention of class 0 at
 14 all.
 15 Now, first, is that something you've ever been aware
 16 of?
 17 A. No, not until the evidence presented —
 18 Q. Right.
 19 A. — here.
 20 Q. I see. So you can't explain why the references to
 21 class 0 have been removed —
 22 A. No.
 23 Q. — by the BRE?
 24 A. No, I can't. Have — I mean, presumably Martin Shipp
 25 has been asked that question.

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1 Q. But I'm asking you. You can't tell me?
 2 A. No, but he would be, I would suggest, the person that
 3 would be most likely to be able to help you with that.
 4 Q. Right.
 5 Let's just try one reference to this and see how we
 6 go.
 7 Could we please have up at the same time, please,
 8 the left—hand side of the page, page 6 {BRE00035377/6},
 9 paragraph 3.1.1, and at the same time on the right—hand
 10 side, let's please have page 4 {BRE00035375/4}, top of
 11 the page. We've got the paragraph that says "Remedial
 12 measures", and on the left—hand side you can see there
 13 is a sentence which says, "The spandrel panel", can you
 14 see, halfway down?
 15 A. Yes.
 16 Q. "The spandrel panel to be an external insulated render
 17 of panels between the windows of either a
 18 non—combustible or Class 0 material."
 19 And if you look at the right—hand side, third line
 20 down, it says:
 21 "The spandrel panel to be an external insulated
 22 render of panels between the windows of
 23 a non—combustible material."
 24 No reference to class 0 there.
 25 A. Mm—hm.

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1 Q. Do you know why not?
 2 A. No, I don't.
 3 Q. Can we take it — we can shorten this — that the same
 4 would apply if one does a comparison between both
 5 reports?
 6 A. Yes.
 7 Q. You can't help?
 8 A. No, I can't. I wasn't involved in either, and obviously
 9 I didn't see the report at the time.
 10 Q. Can you think of any reason why the BRE would not set
 11 out the observations they had set out about class 0 and
 12 combustibility to North Ayrshire in the same way to
 13 DETR?
 14 A. Well, the — no, I can't, really. The only possibility
 15 might be that more information became available if they
 16 were done at different times. And I don't know which
 17 one was done first, but, you know, maybe the information
 18 was clarified. Best practice would be then to revise
 19 the other report to reflect any changes. But, no,
 20 I can't ...
 21 Q. Right. Can you think of any new information that came
 22 up as a result of any further investigation which would
 23 justify the deletion of all reference to class 0 in the
 24 report that went to the DETR?
 25 A. No, I can't, but that's the only possibility, you know,

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1 more information became available from the fire service
 2 or the council or whatever that meant that whatever was
 3 there originally wasn't correct.
 4 Q. But you don't know?
 5 A. No, I don't.
 6 Q. You're speculating?
 7 A. Yes, I am.
 8 MR MILLETT: Let's then turn to the 1999 select committee
 9 recommendations.
 10 And I think, Mr Chairman, looking at the time, now
 11 would be an appropriate moment for the break.
 12 SIR MARTIN MOORE—BICK: Right.
 13 Well, we always have a break during the session, so
 14 we'll take a break now. We'll resume, please, at 3.30,
 15 and while you're out of the room, please don't talk to
 16 anyone about your evidence or anything to do with it.
 17 All right?
 18 THE WITNESS: Thank you.
 19 SIR MARTIN MOORE—BICK: Thank you very much.
 20 (Pause)
 21 Thank you, Mr Millett. 3.30. Thank you.
 22 (3.16 pm)
 23 (A short break)
 24 (3.30 pm)
 25 SIR MARTIN MOORE—BICK: All right, Dr Smith, all ready to

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1 keep going?
2 THE WITNESS: Yes.
3 SIR MARTIN MOORE-BICK: Thank you very much.
4 Yes, Mr Millett.
5 MR MILLETT: Yes, thank you, Mr Chairman.
6 Dr Smith, I would like now to turn to the 1999
7 select committee and the recommendations.
8 You mention the committee hearings in your statement
9 at paragraph 28 on page 9 {BRE00005624/9}. We don't
10 need to go to them, but I think you are aware that,
11 following the Garnock Court fire, a parliamentary select
12 committee was established by what was then the
13 environment subcommittee of the environment, transport
14 and regional affairs committee, to investigate the
15 potential risks of fire spread posed by external
16 cladding systems; yes?
17 A. Yes.
18 Q. Yes.
19 Now, it's right, I think, that you didn't yourself
20 attend the evidence session to that inquiry in
21 July 1999?
22 A. That's correct.
23 Q. But Sarah Colwell, Tony Morris and Peter Field, so far
24 as we can see from the records, did attend.
25 A. That's my understanding.

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1 Q. Now, Tony Morris, you have mentioned his name a number
2 of times and we've seen his name as a project lead on
3 Fire Note 3, and I think he was the project leader on
4 Fire Note 9, wasn't he?
5 A. Yes, that's my understanding, yes.
6 Q. Yes.
7 I just want to look at some of the recommendations
8 made by the select committee in their report after the
9 evidence. We can find that at {CLG00019478}. Let's go
10 to page 1, please, because we'll get the date of this
11 document, which is 14 December 1999, as you can see on
12 your screen.
13 Did you read this document at the time it was
14 published?
15 A. Probably not at that time.
16 Q. Why so?
17 A. It wasn't an area that I was actually involved in.
18 Q. Right. Were you not interested to follow what had
19 happened at this select committee?
20 A. I would have probably read it around 2000 with the
21 subsequent work, but I don't actually recall when I read
22 it, but obviously I have read it.
23 Q. Right. Can we take it — you say from about 2000;
24 I mean, about 2000 happened two weeks after
25 14 December 1999.

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1 A. Okay, okay.
2 Q. But in the months after it was published?
3 A. Yes, I think —
4 Q. Yes, okay.
5 Let's look at page 8 {CLG00019478/8}, please,
6 paragraphs 14 to 16 together. At the foot of the page,
7 it says:
8 "The inquiry also prompted further research at the
9 Fire Research Station of the Buildings Research
10 Establishment (BRE). The conclusions arising from this
11 research, which was carried out in 1994, support the
12 claims of our witnesses that the small-scale tests upon
13 which existing guidance relies are insufficient properly
14 to evaluate the performance of complete cladding systems
15 in a fire, and that there is therefore a clear need for
16 full-scale testing."
17 Then there is a footnote, 24, and if you just
18 scroll, please, or have scrolled to you at the very foot
19 of the page, you will see that the reference under
20 footnote 24 is to the Connolly work in April 1994, isn't
21 it?
22 A. Yes.
23 Q. Yes.
24 If you then go on, please, to page 9
25 {CLG00019478/9}, at paragraph 15, top of your screen, it

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1 says:
2 "15. BRE proceeded to develop an appropriate
3 full-scale fire test, known as 'A test for assessing the
4 fire performance of external cladding systems'. This
5 test was submitted to the DETR in 1996 [and there is
6 a footnote there]. Witnesses suggested that this test
7 would be a considerable improvement on the small-scale
8 testing which is currently carried out to ascertain the
9 fire performance of materials used in external cladding
10 systems.
11 "16. Other witnesses suggested that this test would
12 not be suitable for all external cladding systems, and
13 in particular that it would not be a suitable method of
14 testing the fire performance of 'infill' systems such as
15 that which was involved in the fire at Irvine. However,
16 we note the view of Peter Field of BRE, which developed
17 the test, who told us, 'We believe the test facility
18 itself could be accommodated to assess the fire
19 performance of systems which are not the same as total
20 cladding systems and may involve windows and decorative
21 panels'. The advice we have received concurs with this
22 opinion."
23 Now, against that background, can we please then go
24 to paragraph 19, under the heading "The adequacy of the
25 regulations pertaining to their use". At paragraph 19,

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we can see the following recommendation. In bold it says:

"Notwithstanding what we have said in paragraph 18 ... we do not believe that it should take a serious fire in which many people are killed before all reasonable steps are taken towards minimising the risks."

Then it says in ordinary print:

"The evidence we have received strongly suggests that the small-scale tests which are currently used to determine the fire safety of external cladding systems are not fully effective in evaluating their performance in a 'live' fire situation. As a more appropriate test for external cladding systems now exists, we see no reason why it should not be used."

"20. We believe that all external cladding systems should be required either to be entirely non-combustible, or to be proven through full-scale testing not to pose an unacceptable level of risk in terms of fire spread."

Then in bold the recommendation:

"We therefore recommend that compliance with the standards set in the 'Test for assessing the fire performance of external cladding systems', which has been submitted to the British Standards Institution for

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adoption as a British Standard, be substituted in Approved Document B for previous requirements relating to the fire safety of external cladding systems."

Now, when you read that, as you say you did in the early months of 2000, that recommendation that I've just read to you at the bottom of page 9 and on to page 10 in paragraph 20, what did you understand that recommendation to mean?

A. Basically that we needed to move towards more reliance on the large-scale fire test method as an alternative to a system being non-combustible.

Q. As a simultaneous alternative or as a replacement, Dr Smith?

A. As a replacement.

Q. Yes. So you understood that it meant that small-scale testing would be replaced by a full-scale test method if this recommendation was carried into effect?

A. Yes.

Q. Yes.

Let's now go to the department's response to the committee's recommendations. We find that at {CLG10000347}.

Now, it's difficult to attribute a date to this, but we understand it was published on 6 April 2000. At page 1, the title is:

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"Government response to the first report of the environment, transport and regional affairs committee on potential risk of fire spread in buildings via external cladding systems."

And then if you go to page 2 {CLG10000347/2}, please, in paragraph 5, it sets out the department's details of the consultation which has taken place on the amendments to the 1992 version of Approved Document B, which is the version of ADB as it then stood; yes?

A. Yes.

Q. I'm summarising here.

A. Yes, yes.

Q. Perhaps inelegantly.

Did you see that at the time, do you think?

A. What, the proposals for the amendments?

Q. Yes.

A. I doubt I would have seen those.

Q. Do you remember whether you saw this report in general?

A. No, I don't remember whether I saw this report in general, and it's unlikely at that time that I would have seen it.

Q. Right.

Let's just look at paragraph 6. It says this:

"During the review there was no suggestion that the guidance given in the Approved Document was insufficient

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or if followed would tend to create an unsafe scenario in a fire situation with respect to the external cladding."

Leaving aside, Dr Smith, the question of whether or not there was any such suggestion within the responses to the government's consultation on Approved Document B at the time, did you agree in 2000, when you looked at this, that there was no suggestion that the guidance given in Approved Document B was insufficient or, if followed, would tend to create an unsafe scenario in a fire situation with regard to external cladding?

A. As I said earlier, I don't recall seeing this at the time. I mean, who prepared this?

Q. Well, this is written by Nick Raynsford MP —

A. Okay. Okay.

Q. — who was the sponsoring minister, effectively.

A. Okay. Because it said — talking about him giving evidence.

I don't recall seeing this at the time.

Q. Well, you said you did earlier. I just wonder.

A. Not this. It was the previous document.

Q. So you didn't see this report?

A. No, I don't recall seeing this report, the government response.

SIR MARTIN MOORE-BICK: This is the government response,

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1 isn't it?

2 MR MILLETT: This is the response.

3 You didn't see it at the time?

4 A. I don't recall seeing this.

5 Q. But my question — let me try and get at it in

6 a different way.

7 On what you knew at the time and looking at what you

8 read in the report at the time, which you do say you

9 read, was it your view that there was no suggestion as

10 a fact that the guidance given in Approved Document B

11 was insufficient or, if followed, would tend to create

12 an unsafe scenario in a fire situation with respect to

13 the external cladding?

14 A. I mean, it's an odd statement, given that there had been

15 a fire that — and there had been an inquiry that had

16 led to that.

17 SIR MARTIN MOORE-BICK: Can I just interrupt.

18 If I read this correctly, Mr Millett, the first line

19 of paragraph 6 is referring to the review which is

20 described in paragraph 5. So there was a review by the

21 BRAC working group, and during that review — which,

22 of course, I think Dr Smith will not have seen, I'm not

23 sure we have either — there was no suggestion that the

24 guidance was insufficient. It doesn't follow that that

25 is Dr Smith's own view, but I think the question perhaps

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1 should be put in a more direct way.

2 MR MILLETT: Yes. Let me try it differently. I accept

3 that.

4 Let me try it this way: I think it's wrong, isn't

5 it, to say that if you were yourself asked whether the

6 guidance given in Approved Document B was insufficient

7 or, if followed, would tend to create an unsafe scenario

8 in a fire situation with respect to external cladding,

9 your answer would be that it was insufficient and would

10 tend to create an unsafe scenario?

11 A. Probably, if I'd been asked the question at the time.

12 Q. Yes. Yes. And was that view, counterfactually though

13 it may have been, formed as a result, at least in part,

14 of the Garnock Court fire?

15 A. Yes.

16 Q. Yes.

17 Now, I think you say that the committee recommended

18 that BRE 135 should be revised to reflect the types of

19 products and cladding systems that were then in use, and

20 that a large-scale fire test standard should be

21 published by the British Standards Institute. That's

22 paragraph 29. We'll come on to look at that. But

23 that's right, isn't it? That's your recollection?

24 A. Yes.

25 Q. I'd like to look at how this then developed.

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1 Fire Note 9 is the next stopping point. Fire Note 9

2 I think was dated 1999, wasn't it?

3 A. I don't know without looking, but it should be in the

4 inside cover.

5 Q. Let's go to {CTAR00000019}. There it is. It's authored

6 by Sarah Colwell and David Smit, and it's entitled:

7 "Assessing the fire performance of external cladding

8 systems: a test method."

9 And if we go to page 2 {CTAR00000019/2}, you see, as

10 you rightly say, the date: 1999.

11 A. Yes.

12 Q. Now, do you know whether this was published before or

13 after the evidence given to the select committee, which

14 of course was in July 1999?

15 A. I don't know that. I mean, Sarah Colwell may have

16 a recollection of that.

17 Q. Now, at the time it was published, I think you were head

18 of the reaction to fire team.

19 A. Correct.

20 Q. Would it have been you who approved this document?

21 A. I don't know. I don't recall approving it. And I would

22 not have been the final signatory anyway. It would have

23 been — the final signatory would have been Peter Field.

24 Q. Right. Final signatory, Peter Field, but Sarah Colwell

25 reported to you at this time; yes?

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1 A. She did. If Tony Morris was the project manager under

2 which this was developed, then she would have reported

3 to him in relation to this work.

4 Q. Right. That doesn't necessarily mean that you didn't

5 see it at the time, does it?

6 A. No, it doesn't. I mean, I've seen it since, of course,

7 and it's very difficult to remember at the time whether

8 I actually saw it then and, you know, made any comments

9 on it.

10 Q. All right.

11 Let's try it this way: did you understand

12 Sarah Colwell to be leading on the development of

13 Fire Note 9, subject to the supervision of Peter Field?

14 A. Yes, yes.

15 Q. Now, let's go to her statement, please, at

16 {BRE00047571/19}, paragraph 127. She says this:

17 "Fire Note 9 did not develop a new test method, it

18 was a revision of Fire Note 3. Fire Note 9 contained no

19 technical changes to the methodology or assessment

20 criteria in Fire Note 3. The primary revisions were:

21 "a. Setting a limit on the maximum thickness of

22 sample which could be tested;

23 "b. Inclusion of a definitions section; and

24 "c. A graphical example of determination of test

25 start time and temperature."

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1 Now, from what you know of this, is that right?

2 A. Yes, as far as I'm aware, yes.

3 Q. She goes on to say, if we go to page 20

4 {BRE00047571/20}, please, at the foot of that page,

5 paragraph 134:

6 "The process by which Fire Note 9 was developed can

7 be described as a review of the format in which Fire

8 Note 3 was presented in order to bring it in—line with

9 the approach used by standardisation bodies such as the

10 BSI, and to confirm [that should be 'conform'] with

11 MHCLG and industry stakeholders that the classification,

12 methodology, and associated performance limits based on

13 the work already completed in the development of Fire

14 Note 3 were still acceptable."

15 Do you agree with that?

16 A. If that's what Sarah's recollection is, then I have no

17 reason to disagree with that.

18 Q. Was that your understanding of the way in which

19 Fire Note 9 came to be developed?

20 A. I don't recall.

21 Q. With whom at the MHCLG were the matters listed there

22 from Fire Note 3 confirmed or conformed as still

23 acceptable?

24 A. I don't know that.

25 Q. Do you know who the industry stakeholders were that she

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1 refers to?

2 A. No, I don't.

3 Q. Can we look at your witness statement, please, page 8

4 {BRE00005624/8}, paragraph 25. At the foot of the page,

5 we can see paragraph 24 is the one we've read before

6 about reliance on small—scale test data; you see that?

7 A. Yes.

8 Q. Then if you look at paragraph 25, you say this:

9 "As a result, a Department of the Environment (DoE)

10 and Industry collaborative research project was

11 established to develop the first large—scale fire test

12 methodology. This resulted in the publication in 1999,

13 by BRE, of 'Fire Note 9 — Assessing the fire performance

14 of external cladding systems: a test method' ..."

15 A. Mm—hm.

16 Q. Then it goes on:

17 "The test method set out in Fire Note 9 was first

18 referenced in the 2000 edition of Approved Document B —

19 Fire Safety [and there is the reference] ... which is

20 one of the guidance documents to the Building

21 Regulations 2000 published by the Office of the Deputy

22 Prime Minister, along with the First Edition of BR 135

23 ... which was published in 1988."

24 If we go on, please, on page 9 {BRE00005624/9} to

25 paragraph 27, you say this:

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1 "This test method was published and referenced to

2 control the hazards that might arise due to developments

3 in the products, materials and components of cladding

4 systems and also included criteria to demonstrate an

5 acceptable level of fire safety performance for cladding

6 systems on the outside of masonry buildings."

7 Now, from where or from whom did you learn about the

8 reason for the development of Fire Note 9 that you have

9 set out here?

10 A. It would have been in discussions with, at the time, I'm

11 sure, Peter Field and Sarah Colwell.

12 Q. What was your involvement in those discussions?

13 A. Very little. I wasn't involved at all in the

14 development of Fire Note 9.

15 Q. Well, you were involved enough to be able to glean —

16 A. And the PII project that — or whatever it was, the

17 collaborative project that was carried out, that was

18 referred to.

19 Q. Maybe we're at cross—purposes.

20 I asked you from where or from whom did you learn

21 about what you've set out about your understanding of

22 Fire Note 9 —

23 A. Mm—hm.

24 Q. — and you told us that it was in your discussions with

25 Peter Field and Sarah Colwell, and my question is: what

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1 was your involvement in those discussions? What was the

2 nature of your involvement in those discussions?

3 A. It would have just been feedback in terms of background

4 to what was going to be done next, because this was

5 obviously a response to the environment subcommittee,

6 the parliamentary inquiry, and whilst they put

7 references in there and made reference to the first

8 edition of BR 135, it was not really definitive

9 guidance. There were no pass/fail criteria or anything

10 like that in BR 135, it was guidance, and I think there

11 was a recognition that that needed updating to reflect

12 the types of systems and so on that were now in the

13 market as opposed to what was available in 1988, or

14 pre—1998, in fact.

15 Q. I'm just puzzled by the chronology. Was Fire Note 9

16 developed, as you've just told us, as a response to the

17 environment subcommittee, the parliamentary inquiry, or

18 did it pre—date that?

19 A. It pre—dated that. It was published before that, wasn't

20 it?

21 Q. Yes. So how could it have been a response, then, to

22 the —

23 A. No, no, I was talking about the paragraph above, where

24 the reference to it was put into the approved document.

25 Q. I see.

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1 Now, looking at paragraph 27 of your statement
 2 there —
 3 A. Yes.
 4 Q. — was Fire Note 9 mainly developed because of the
 5 recognition — your word — that reliance on small—scale
 6 test data was not possible, as you've explained, or
 7 mainly because of developments in the products used, or
 8 a bit of both?
 9 A. I suspect a bit of both. It's my belief that it was
 10 a bit of both.
 11 Q. What was the principal driver, though? Was it the
 12 inadequacy of small—scale test data?
 13 A. Yes, the fact that you still needed a standardised
 14 approach for testing at large scale.
 15 Q. Now, I don't think we don't need to go to it, but
 16 Dr Connolly says in his statement, and I summarise, that
 17 at the time of his experimental work in 1994, the idea
 18 was to move away from class 0 and adopt compliance with
 19 the full—scale test. That's from his statement at
 20 paragraph 25(c) on page 15 {BRE00047667}.
 21 Assuming that's correct, do you know why there was
 22 so little movement in that direction in the years
 23 between 1994, the date of his tests, and 1999, the date
 24 of Fire Note 9 and the DETR parliamentary select
 25 committee inquiry?

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1 A. No, I don't.
 2 Q. You don't.
 3 Do you know why there was so little movement even in
 4 the wake of the select committee's recommendation on
 5 full—scale testing in December 1999?
 6 A. I can — from what I can recollect, I mean, the decision
 7 was taken that the standard — the Fire Note 9 needed to
 8 be taken and turned into a British Standard, and you
 9 could not actually put the reference to that BS standard
 10 in until it had been published, and —
 11 Q. Now — sorry.
 12 A. So it's chicken and egg, isn't it? And work was done as
 13 quickly as it could be to progress that.
 14 Q. But the egg hatched at some stage, didn't it, in the
 15 sense that BS 8414 went in?
 16 A. Yes.
 17 Q. But diagram 40 and class 0 were retained.
 18 A. Yes.
 19 Q. The question is: why?
 20 A. I can't explain that, other than what I said earlier
 21 about, you know, the decisions as to what to leave in
 22 and what to take out were not taken by BRE, they are
 23 taken by other authorities, based on consultation and
 24 input from BRAC and other constraints that the
 25 government departments may well be under.

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1 Q. Did you see a draft of the 2000 edition, the next
 2 edition, of the approved document before it was
 3 published?
 4 A. I don't recall seeing one, no.
 5 Q. Now, it was published in July 2000, but were you aware
 6 at some time before that that Fire Note 9 was not going
 7 to replace testing to BS 476—6 and 7 and diagram 40, but
 8 there would be just a passing mention of it in the text
 9 of the guidance as a possible alternative option?
 10 A. No, I don't think I would have been aware of that.
 11 Q. Right. Are you able to tell us why that came about?
 12 A. Why it was only given a passing mention?
 13 Q. Mm.
 14 A. No, I don't know why.
 15 Q. Did you ask anybody at the department when you saw the
 16 2000 edition why it was that class 0 had been retained
 17 and there was only a passing reference to what had been
 18 Fire Note 9?
 19 A. No. I mean, that was not an area that I was working in
 20 at that time, so other colleagues would have had such
 21 discussions with the department.
 22 Q. Do you know which colleagues had those discussions with
 23 the department?
 24 A. People such as Tony Morris, and a colleague of his that
 25 used to work very closely with the department in terms

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1 of understanding and interpreting the research for them
 2 was Richard Reed.
 3 Q. Did you ever talk about this subject with any of those
 4 individuals?
 5 A. No, I don't believe I did.
 6 Q. Do you know who made the decision that the full—scale
 7 test that the BRE had developed to the extent of
 8 Fire Note 9 would not replace diagram 40 as the select
 9 committee recommended but would sit alongside it?
 10 A. No, I don't know.
 11 Q. I think you told us earlier that, at the time, the
 12 full—scale test might replace diagram 40 at some point
 13 in the future.
 14 A. Yes.
 15 Q. Was that something that you had discussions about with
 16 anybody at the department?
 17 A. I mean, it must have been something that — I don't know
 18 whether it was discussed with the department or whether
 19 it was my belief based on discussions that I'd had with
 20 BRE colleagues such as Peter Field and Sarah Colwell.
 21 Q. Can we then go back to the department's response to the
 22 committee's recommendations, 6 April. It's a document
 23 you told us you hadn't seen, but let's —
 24 A. I don't recall seeing it, yes.
 25 Q. You don't recall seeing it. All right.

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1 Let's go to it, {CLG10000347/3}, paragraph 9. It
 2 says:
 3 "The 1992 edition of the Approved Document to
 4 Part B, which was in force at the time I gave evidence
 5 to the Committee last year, sets out the recommended
 6 provisions for the fire protection of external surfaces
 7 of walls in diagrammatic form. However in the new 2000
 8 edition of the Approved Document to Part B the test
 9 method mentioned in your recommendation (currently BRE
 10 Fire Note 9) is now quoted as an alternative to meeting
 11 these provisions for the external surfaces of walls."
 12 Now, if we then go on to paragraph 11, it says this:
 13 "When the technical amendments to the document have
 14 been completed, and it has been adopted as a British
 15 Standard, the Department will amend the reference in the
 16 Approved Document to BRE Fire Note 9 to reflect its
 17 status as a British Standard. We will also review
 18 whether the reference to this method of demonstrating
 19 compliance should be strengthened. It is unlikely that
 20 any such changes will be made immediately the status of
 21 the test method is changed as such minor amendments to
 22 the Approved Documents are difficult to promulgate to
 23 ensure that all users of the document are made aware of
 24 the change. However, supplements to the Approved
 25 Document are planned to give guidance on the new

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1 harmonised European methods of test, and the amendment
 2 would be included in this."
 3 Now, I know you say you don't recall seeing this
 4 document at the time, but were you aware that this was
 5 the department's response, the two paragraphs I've just
 6 read to you, 9 and 11?
 7 A. No, I don't recall being aware of that.
 8 Q. Does it follow that you weren't aware in 2000 that the
 9 department's position was that, following the adoption
 10 of the BRE's full-scale test as a British Standard, it
 11 would review whether the reference to this method of
 12 demonstrating compliance should be strengthened?
 13 A. Yeah, no, I wasn't aware of that. I don't recall being
 14 aware of that.
 15 Q. Do you recall any discussion about the possibility of
 16 substituting BRE's then Fire Note 9 as a test method for
 17 the existing requirements of diagram 40, or at least
 18 going some way towards doing that?
 19 A. No.
 20 Q. No.
 21 In fact, it's right, isn't it, that no such
 22 amendment to "strengthen the reference to Fire Note 9",
 23 or indeed BS 8414-1, as it became, was included in the
 24 supplement to the approved document on the harmonisation
 25 of European test methods in 2002?

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1 A. Probably. I mean, I don't recall without going back and
 2 checking, but, I mean, that would be ---
 3 Q. Take it from me that it wasn't.
 4 A. Okay.
 5 Q. Can you help us why that is the case?
 6 A. No, I can't.
 7 Q. Do you remember any discussion with the BRE about that,
 8 about not strengthening the reference to include the
 9 reference to British Standard 8414?
 10 A. No, not with me anyway.
 11 Q. In fact, it's right, isn't it, that when the reference
 12 to BS 8414 came into the approved documents, as it did
 13 in the 2006 edition published in April 2007, there was
 14 still no amendment to "strengthen the reference", was
 15 there?
 16 A. No, the reference would have just been changed to the
 17 BS 8414 published standard.
 18 Q. Exactly. Indeed, that's the case, isn't it, as far as
 19 you know, throughout all the amendments subsequently to
 20 the approved document?
 21 A. Yes, correct.
 22 Q. So it's right, I think, that throughout these documents,
 23 BS 8414 was provided as an alternative and only as
 24 an alternative route to compliance, alternative to
 25 meeting the provisions of 12.6 and diagram 40, so far as

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1 external walls were concerned over 18 metres?
 2 A. Correct.
 3 Q. And only in December 2018 that the government did away
 4 with class 0 in relation to external walls.
 5 A. Yes.
 6 Q. Yes.
 7 Can you just tell us, at what stage over those
 8 years, 2000 to 2018, did you realise that the select
 9 committee's recommendation of replacing class 0 with
 10 what became BS 8414 was not going to be followed and
 11 that class 0 was here to stay?
 12 A. I don't recall at what point that would have been
 13 foremost in my mind. I couldn't give you a date.
 14 Q. There is no point at which you asked yourself, given
 15 what you knew about and felt about class 0, and knew
 16 about the recommendations from the select committee,
 17 "I wonder why class 0 is still there in Approved
 18 Document B"?
 19 A. Yes, I mean, what I would say is that, of course,
 20 you know, when they undertook the review in 2006, then
 21 the department went out to full consultation on the
 22 changes, and also asked for, you know, industry's views
 23 on those changes, et cetera. And BRAC, again, would
 24 have been heavily involved in preparing all of that
 25 material and those documents, and it's really for those

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1 bodies — well, as I say, BRE has no authority in that.
 2 We can only express an opinion, and it is no more valid
 3 than anybody else's opinion.
 4 Q. Well, it may not be more valid, but it would certainly
 5 be more influential, wouldn't it, given the historic
 6 relationship between BRE and government, even after
 7 privatisation?
 8 A. Not necessarily, no.
 9 Q. Not your experience?
 10 A. No.
 11 Q. You say that industry's views on the changes were sought
 12 as part of the consultation in 2006; do you know whether
 13 industry was asked the question, "Should we retain
 14 class 0?"
 15 A. I don't know without going back and looking. I mean,
 16 there certainly was a lot of debate and a lot of
 17 consideration given to the retention of the
 18 national classes, not just class 0, but the
 19 national classes in general in the approved document.
 20 Q. Given the indicated direction of travel in 2000, did
 21 there ever come a point when you, even in a casual
 22 moment with your contacts in the department, you being
 23 the points person at the BRE, ever say to them, "What's
 24 happened to BS 8414 taking over from class 0 as the
 25 select committee recommended back in 1999?"

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1 A. I don't recall having that direct conversation on that
 2 one particular issue with them. I mean, the approved
 3 document obviously covers a big, broad range of matters
 4 in relation to the different classes.
 5 Q. Given the BRE's interests in what became BS 8414, and
 6 the expansion of the testing that you would be able to
 7 achieve and, therefore, the concomitant increase in your
 8 income, why didn't you press government on getting rid
 9 of class 0 as recommended and adopting BS 8414 as the
 10 standard?
 11 A. Well, that's not the motivation for BRE. It wasn't
 12 about us increasing the income into that income stream.
 13 I mean, the whole point of producing Fire Note 9 as
 14 a British Standard was to make it more available to
 15 other laboratories, et cetera, so that they could indeed
 16 invest and begin to carry out testing in those areas as
 17 well. It was to make it, you know, a proper standard
 18 that others could also test to.
 19 Q. What I'm really suggesting to you is that you had two
 20 motives for pushing what the select committee had
 21 recommended, namely substitution of class 0 with the
 22 full-scale, full system test: one was financial, and the
 23 other was fire safety in the public interest; would you
 24 accept that?
 25 A. Yes, fire safety in the public interest. That said, as

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1 I say, you know, there are other authorities that are
 2 looking at these things, and BRE's voice was one of
 3 many, and, you know, did not necessarily carry any
 4 greater weight than anybody else's.
 5 Q. I wonder if that's really right.
 6 It's right, isn't it, that in fact the BRE was
 7 contracted in by government to do lots of things,
 8 including advising on the amendments to the approved
 9 documents, Approved Document B, in 2006?
 10 A. Well, we could produce the technical evidence base and
 11 provide them with the information, but we were not the
 12 decision-makers.
 13 Q. No, I'm not suggesting that you were the
 14 decision-makers. What I'm asking you is what insights
 15 you had into the rationale for those who were making the
 16 decisions.
 17 A. Yes. I don't recall that conversation happening, so
 18 I really can't offer any further information around that
 19 point.
 20 Q. Let's then turn to 2001 and cc1924, which was the review
 21 of the fire performance of external cladding systems,
 22 and also the revision of BR 135.
 23 First, you will recall, I think, that there was
 24 a project which BRE bid for in late 1999, after Garnock
 25 and after the select committee, which was the review of

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1 fire performance of external cladding systems and the
 2 revision of BR 135.
 3 A. Yes.
 4 Q. Yes, and that was under a contract called cc1924.
 5 A. Probably, yes.
 6 Q. Take it from me it's got that label, and that's what we
 7 refer to.
 8 A. Yes, okay.
 9 Q. Were you involved in that project, Dr Smith?
 10 A. Not directly, no.
 11 Q. Not directly.
 12 During the project, I think your position within the
 13 BRE was head of the reaction to fire team, as we've
 14 already seen.
 15 A. Correct.
 16 Q. Did you become involved in the bid for the cc1924
 17 project?
 18 A. I think the bid would have been prepared by Dr Colwell.
 19 I may have seen it and made some comments on it, I don't
 20 recall, and I don't know who signed the bid off. It may
 21 well have been at that time Peter Field.
 22 Q. Let's go to {BRE00041836}, please. This is the first
 23 page of the bid document.
 24 A. Okay.
 25 Q. As you can see, it bears the date 23 December 1999. The

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1 BRE project manager is "Mrs S Colwell", and you can see
 2 the title to it.
 3 There are a number of versions of this document, but
 4 if you just stick with that, I think at that time still
 5 you were Sarah Colwell's line manager, weren't you?
 6 A. I was, yes.
 7 Q. If we go, please, to page 11 {BRE00041836/11}, under the
 8 scope of work, the second paragraph there, which says,
 9 in the second line:
 10 "The quality in terms of the technical detail of the
 11 work and the outputs and the timeliness of delivery will
 12 be supervised and monitored throughout the project by
 13 Dr D A Smith as Director of the Centre for Reaction to
 14 Fire and Mr P Field, Director of FRS Operations."
 15 A. Yes.
 16 Q. Then if you go to the sixth paragraph down, under the
 17 heading "Project Organisation/Staffing", that reads in
 18 the second line:
 19 "The project will be led by Mrs S Colwell, Senior
 20 Consultant, Centre for Reaction to Fire under the
 21 supervision of Dr D A Smith as Director of Centre for
 22 Reaction to Fire. The quality and timeliness of the
 23 outputs is monitored by Mr P Field, Director of FRS
 24 Operations."
 25 A. Yes.

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1 Q. Then if you go to page 12 {BRE00041836/12}, please, in
 2 the middle of the page, you can see that it says, just
 3 after the two bullet points under "Project
 4 Responsibilities":
 5 "All activity on the project shall be subject to the
 6 supervision and quality control of ... Dr D A Smith."
 7 A. Mm—hm.
 8 Q. Can we take it from that that that is an accurate record
 9 of your relationship to this project and your
 10 responsibilities on it?
 11 A. As laid down in this, yes.
 12 Q. Yes.
 13 A. That Sarah would have consulted me as and when she
 14 needed to, yes.
 15 Q. Can you tell us, how did you provide the supervision and
 16 quality control for this project?
 17 A. I don't recall all of the details of that.
 18 Q. In what way did you supervise Dr Colwell's work?
 19 A. I mean, obviously she would have designed the programme,
 20 because it was a test programme, she would have designed
 21 that. I'm sure we would have sat down and reviewed the
 22 test programme that she was proposing to do, and would
 23 have discussed potentially why she had chosen to do one
 24 thing as opposed to something else. You know, I might
 25 have during that discussion said, "Have you thought

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1 about X?" You know, it's that kind of discussion.
 2 I mean, it doesn't mean that you are stood in the
 3 laboratory looking over somebody's shoulder all the
 4 time. That's not what that means in this context.
 5 Q. Can we go to page 3 of this document {BRE00041836/3}.
 6 We can see the project objectives there, and there are
 7 three bullet points:
 8 "■ To review the guidance contained within the
 9 Approved Documents that serve the Building Regulations
 10 with regard to external cladding systems on multi-storey
 11 buildings, in particular fire stopping between floors
 12 and surface spread of flame.
 13 "■ To update and maintain the Building Regulations
 14 and associated guidance based on a series of
 15 experimental studies on new and existing cladding
 16 systems.
 17 "■ To support the process of regulation and
 18 harmonisation with Europe."
 19 Then under those general objectives, you can see
 20 that there are some specific objectives of the DETR set
 21 out there. We can see them:
 22 "■ To carry out a survey of the existing
 23 multi-storey building stock in Great Britain in order to
 24 determine the composition and design of systems and the
 25 changing nature of materials currently in use within

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1 3 months of the start date.
 2 "■ To produce a simple database of the results of
 3 the survey including cladding type, application and
 4 their respective market share within 3 months of the
 5 start date.
 6 "■ To review and update the existing guidance given
 7 in BRE report BR 135 ...
 8 "■ To complete an experimental programme
 9 enabling ...
 10 "■ To utilise the large-scale scenario based test
 11 to determine the most appropriate method for specifying
 12 the fire performance requirements of cladding systems."
 13 Then other things as well, as you can see.
 14 A. Mm—hm.
 15 Q. Just on that last bullet point I want to focus, but did
 16 all of those particular objectives listed in the bid
 17 document remain as objectives and unchanged through the
 18 life of the project?
 19 A. I don't recall.
 20 Q. Now, as part of the project, do you recall that an IAG,
 21 an industry advisory group, was established by the BRE?
 22 A. Yes, that would not be unusual.
 23 Q. What was its purpose?
 24 A. The industry advisory groups or stakeholder groups or
 25 steering groups, as they can be called any one of those

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1 things, is for them to basically understand what's going
2 to be done in the project, for them to provide input to
3 the project, to — they have generally real-world
4 experience that the research teams at BRE at the time
5 did not have, and they're able to also advise on choices
6 and selections of different materials, and so on.

7 So they are — they're usually sent documents as
8 well to review, reports and so on, to comment on during
9 the course of the project. So if you produce a draft
10 output, they will typically get a copy of the draft
11 output and will have the opportunity to look at that and
12 provide feedback. And, yeah, I think that probably just
13 about covers it.

14 Q. Thank you.

15 Can we go to {BRE00001392}. This is the first page
16 of the annual progress report, 1 April 2000 to
17 30 April 2001, under cc1924.

18 A. Mm—hm.

19 Q. You can see from page 2 that that is — well, sorry,
20 page 1, 27 April 2001 is the date. We've just shot past
21 it, but that's what it said.

22 If we go to page 5 {BRE00001392/5}, we can look
23 under the heading, "Formation of the IAG".

24 I'm sorry, I'm rushing ahead a little bit too fast.

25 Can we go, please, to page 2 {BRE00001392/2}. We

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1 can see on page 2 your name there —

2 A. Yes, as the approver.

3 Q. — as the approver, prepared for Anthony Burd; yes?

4 A. Yes.

5 Q. By Sarah Colwell.

6 A. Yes.

7 Q. Let's go then to page 5 {BRE00001392/5} and look at the
8 heading "Formation of the IAG". 30 groups were invited,
9 as you can see, to join the industry advisory group for
10 this project, and they included representatives from:

11 " ■ Manufacturers (rain screen systems, rendered
12 systems and built-up systems).

13 " ■ specifiers, and

14 " ■ building owners and users."

15 A. Mm—hm.

16 Q. Now, under that list we can see that it's reported, as
17 you can see below, that 27 representatives of the 30
18 accepted the invitation to join, and the members of the
19 IAG group are then listed on page 9 {BRE00001392/5}. If
20 we go to that, you can see table 1 there, "Members of
21 the IAG", and there they are, and of the 27, the list
22 includes five members of BRE staff, as well as
23 Dr Jackman from the Loss Prevention Council; we've got
24 three government employees, including Anthony Burd; and
25 we've got people from the BBA, CWCT — do you see that?

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1 A. Mm—hm.

2 Q. And various manufacturers and industry associations;
3 yes?

4 A. Yes.

5 Q. Do you know who had decided which manufacturers,
6 specifiers and building owners and users would be
7 invited to join the IAG?

8 A. Usually the way that works is a list is drafted up and
9 then it's discussed and circulated with the department,
10 and they typically have, you know, the final say in
11 agreeing that that is an appropriate and balanced group
12 of people that will add value to the project.

13 Q. Right. So the department had final say, even though
14 this was your project?

15 A. Typically.

16 Q. Right.

17 A. Yes.

18 Q. I see.

19 Was it envisaged that all aspects of the work on the
20 project would be shared with the IAG or did the group
21 have a particular role?

22 A. It's not normal for you to not share the project.

23 You — you know, when you have a meeting, then the work
24 that's been done would be presented back to the IAG. It
25 might be — they might be given hard copy format, but it

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1 also might be in the form of, you know, just a verbal
2 update as to what's happened. You know, problems will
3 be discussed with them, if we've run into problems with
4 the project for any reason. It's usually a very sort of
5 open dialogue. They are there to assist the project,
6 and if you don't share with some degree of openness what
7 you are doing and how you're doing it, then you're not
8 going to get the best feedback from them.

9 Q. Yes.

10 Now, to meet the objectives of this project, I think
11 several reports were produced, weren't they, one of
12 which was a literature review?

13 A. Probably, yes. I mean, the outputs would be listed in
14 the proposal usually.

15 Q. Can we go to {BRE00001353}, please. This is a letter of
16 30 March 2000 to Mr Payne, who is Mick Payne, I think,
17 of AEA Technology.

18 A. Correct.

19 Q. It comes from Sarah Colwell, copied to Anthony Burd and
20 a Mr Troughton, sending the literature review to him.

21 A. Yes.

22 Q. If we go, please, to page 4 {BRE00001353/4}, we can see
23 the actual report itself, which is where it starts, and
24 you will see that the report is prepared by
25 Sarah Colwell, J Foster, B Martin, centre for reaction

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1 to fire , and the date is 30 March 2000, and it's signed
 2 by you; yes?
 3 A. Yes, correct.
 4 Q. Approving it as the centre head.
 5 Who is J Foster?
 6 A. Jason Foster was somebody that joined us as a graduate.
 7 I mean, I don't know how long he'd been at BRE by that
 8 time. And obviously Brian you know. I mean, Brian was
 9 not part of the reaction to fire centre, but that —
 10 Q. What was the basic purpose of this review?
 11 A. Well, I presume if you go through, it will explain in
 12 the introduction.
 13 Q. Well, what was your understanding at the time?
 14 A. I can't recall at the time without looking at —
 15 you know, having my memory jogged on the scope of what
 16 was being undertaken.
 17 Q. We know what your relationship was hierarchically with
 18 Sarah Colwell at the time. What was Brian Martin's role
 19 at this point, March 2000?
 20 A. March 2000, Brian sat in — so we had two centres within
 21 the fire research activities : Sarah and the reaction to
 22 fire centre were in my centre, and I had a colleague
 23 called Nigel Smithies who was the centre head for the
 24 other area of activity , and Brian Martin sat within
 25 Nigel's centre.

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1 Q. And what was that centre? What was it called?
 2 A. I can't remember what it was called, I'd have to go back
 3 and look.
 4 Q. What did it do?
 5 A. It basically had a group of activities that sat within
 6 it. It included fire investigation at that time, sat
 7 within that centre. The — all of the support work that
 8 Brian was doing in relation to the approved document and
 9 the technical secretariat work and so on sat within that
 10 centre. There was also a group looking at fire
 11 suppression, research into fire suppression
 12 technologies. There was a group looking at smoke
 13 control and fire detection.
 14 Q. What was your role as the person signing it off?
 15 A. So as the approver of this , basically you're looking at
 16 the report when it comes to you, you're looking for
 17 sort of obvious typographical mistakes and so on.
 18 You're looking to check that the right template's been
 19 used, because they were all agreed and it was quite
 20 strict with the contractual side of things that you had
 21 to present the reports in a specific way on specific
 22 templates. And then just a pair of eyes looking at it
 23 that had not been involved in the day-to-day work and
 24 actually doing the work, but to see if there was
 25 anything in there that basically doesn't make sense,

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1 didn't read correctly , and so on.
 2 But it's not the job of the approver to go back and
 3 repeat the work; you're reviewing the work that other
 4 people have done. So, you know, a review of a document
 5 like this would typically take, you know, half a day
 6 maximum.
 7 Q. What was Sarah Colwell's role in this review?
 8 A. Well, Sarah would have led the project team in carrying
 9 out the work. I don't know exactly what parts she would
 10 have done personally.
 11 Q. Was it not your role as approver to find out?
 12 A. Well, I can't remember now. I mean, we would have known
 13 at the time, I'm sure. But I did not know — I can't
 14 tell you now.
 15 Q. What was Brian Martin's role in this report, do you
 16 know?
 17 A. I can't remember the contents. Have we got the contents
 18 of the report, please?
 19 Q. Yes. Let's go to page 6 {BRE00001353/6}. You'll see
 20 "Executive summary". If we can have that expanded,
 21 please.
 22 So you can see that it says that, "This paper
 23 identifies and summarises", three bullet points:
 24 " ■ the types of external cladding systems currently
 25 in use.

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1 " ■ the current requirements and guidance as given in
 2 Approved Document (B), 2000 revision, and
 3 " ■ the research previously undertaken on external
 4 fire spread in buildings."
 5 A. Yes.
 6 Q. And then there are findings.
 7 A. Yes.
 8 Q. That's what it was about.
 9 A. Yes.
 10 Q. Does that help? My question was, going back to it: what
 11 was Brian Martin's role?
 12 A. So Brian Martin would certainly have been leading on the
 13 second bullet point, the current requirements and
 14 guidance as given in the approved document and its
 15 revision. Sarah, I would say, would have led on the
 16 research previously undertaken on external fire spread
 17 on buildings. And types of external cladding systems
 18 currently in use, I mean, that could have been —
 19 I don't know whether that was done jointly between the
 20 two of them or whether one or the other would have taken
 21 the primary lead on that.
 22 Q. Now, at the time, I think it's right, isn't it, that the
 23 revisions to Approved Document B 2000 revision were
 24 still in draft, because I think they weren't published
 25 until the July of that year and this document was dated

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1 March?
 2 A. That may well be true. I don't know the exact
 3 timelines.
 4 Q. So is it right that Brian Martin would be leading on,
 5 when it says the current requirements and guidance, the
 6 draft current guidance?
 7 A. Probably, in that case.
 8 Q. Right.
 9 Why do you say Brian Martin would have led on
 10 point 2? Was his role focused on ADB back in 2000?
 11 A. Yes.
 12 Q. It was?
 13 A. Yes, so Brian was a building control professional by
 14 background —
 15 Q. Right.
 16 A. — and so he had real-world experience of the approved
 17 documents and how to apply them and so on, which
 18 obviously was not true of people that had come from
 19 a research background.
 20 Q. Was anybody other than Brian Martin at the BRE at the
 21 time as experienced or expert, if that's the right word,
 22 on the approved document as Brian Martin?
 23 A. Yes, so — and I can't remember when he retired, but
 24 Brian in effect took over and was recruited to — for
 25 a period of time, anyway, to work alongside somebody

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1 called Richard Reed.
 2 Q. You mentioned him before.
 3 A. Yeah, who again was a building control professional by
 4 background, and, you know, had practised and worked and
 5 had real-world experience.
 6 Q. Do you know whether this report was reviewed by the
 7 department before it was finalised?
 8 A. That was the typical process, so I'd be surprised if it
 9 wasn't.
 10 Q. Right.
 11 A. I mean, they — typically you would submit a report and
 12 then they would come back with any comments or questions
 13 or queries or clarifications that they needed and ...
 14 yeah.
 15 MR MILLETT: Mr Chairman, we are a long way from finishing
 16 the topic before 4.30.
 17 SIR MARTIN MOORE-BICK: Yes.
 18 MR MILLETT: It's simply not possible, looking at my notes,
 19 but we are in a natural sub-break. So I'm going to ask
 20 you, I think, to call an end for the day now, and we can
 21 come back to this very document, I think, tomorrow
 22 morning. Sorry to break in the middle of a document.
 23 SIR MARTIN MOORE-BICK: I don't think it will be tomorrow,
 24 though, Mr Millett.
 25 MR MILLETT: No, it won't. Monday, the next available ...

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1 SIR MARTIN MOORE-BICK: Well, we don't usually finish even
 2 a few minutes early, but there's obviously a good reason
 3 to do so today. We've reached a natural point. So
 4 we'll break there. We'll resume — I mean, I know you
 5 were expecting to come back next week anyway, weren't
 6 you?
 7 THE WITNESS: Yes, indeed.
 8 SIR MARTIN MOORE-BICK: So that wasn't a surprise. So we'll
 9 resume, please, on Monday morning at 10 o'clock.
 10 THE WITNESS: Okay.
 11 SIR MARTIN MOORE-BICK: We'll look forward to seeing you
 12 then, and please take care over the weekend not to
 13 discuss your evidence or anything relating to it with
 14 anyone else.
 15 THE WITNESS: Thank you.
 16 SIR MARTIN MOORE-BICK: All right?
 17 THE WITNESS: Yes.
 18 SIR MARTIN MOORE-BICK: Thank you. So, if you'd like to go
 19 with the usher, that's it for the day.
 20 THE WITNESS: Thank you very much.
 21 SIR MARTIN MOORE-BICK: Thank you very much.
 22 THE WITNESS: Thank you.
 23 (Pause)
 24 SIR MARTIN MOORE-BICK: Thank you very much, Mr Millett.
 25 10 o'clock on Monday, then. Thank you.

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1 MR MILLETT: Monday, thank you.
 2 (4.30 pm)
 3 (The hearing adjourned until 10 am
 4 on Monday, 21 February 2022)

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