

OPUS 2

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Grenfell Tower Inquiry

Day 37

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Phone: +44 (0)20 3008 5900

Email: transcripts@opus2.com

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

1 Wednesday, 16 September 2020
 2 (10.00 am)
 3 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to
 4 today's hearing. We're going to begin by hearing
 5 further from Mr Anketell-Jones, who was giving evidence
 6 yesterday. So would you ask Mr Anketell-Jones to come
 7 in, please?
 8 MR DANIEL ANKETELL-JONES (continued)
 9 SIR MARTIN MOORE-BICK: Good morning, Mr Anketell-Jones.
 10 THE WITNESS: Morning.
 11 SIR MARTIN MOORE-BICK: Ready to carry on?
 12 THE WITNESS: Yes, sir.
 13 SIR MARTIN MOORE-BICK: Thank you very much.
 14 Ms Grange.
 15 Questions from COUNSEL TO THE INQUIRY (continued)
 16 MS GRANGE: Thank you. Good morning.
 17 Just a couple of questions now back on the topic of
 18 insulation before we pick up on the ACM story again.
 19 I want to ask you about the use of Kingspan K15 on the
 20 tower. We saw in your witness statement yesterday that
 21 you'd referred to it being a phenolic insulation that
 22 was used on the tower.
 23 Were you aware that some Kingspan Kooltherm K15 had
 24 been used on the tower as well as Celotex RS5000?
 25 A. No, I wasn't.

1

1 Q. You weren't? You were never aware of that?
 2 A. No.
 3 Q. And then again on the topic of insulation, I just want
 4 to look at the Harley specification for the Grenfell
 5 project. This is {RYD00046822}. So these are
 6 specification notes that were prepared, I think by
 7 Kevin Lamb, is that right, for the project?
 8 A. It's got his signature on it or title.
 9 Q. Yes. Is this a document you were familiar with while
 10 you were working on the Grenfell project?
 11 A. No, I was focused on the other project that I was
 12 working on.
 13 Q. So you don't recall ever looking at this specification,
 14 noting what was in it, checking it?
 15 A. No, I was only meant to be managing Kevin's time and to
 16 be a stop-in for the first part of the project until
 17 there was a project manager and designer on it.
 18 Q. Okay. The point is there's no mention of the main
 19 insulation product here that was to be used behind the
 20 rainscreen panels on the spandrels and the columns, so
 21 there's no mention in this document of the RS5000
 22 insulation, and you can't help us as to why that might
 23 be?
 24 A. No.
 25 Q. If we look within this document pack, there's some

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1 drawings below. If I could look at page 4
 2 {RYD00046822/4}, do you see there that we are seeing
 3 drawings showing the insulation, and it's using
 4 a wriggly line, if I can put that in a very
 5 non-technical way, for the insulation, we see it on the
 6 left and we see it on the right. Do you see that there?
 7 A. Yes.
 8 Q. Do you remember seeing that same marking for insulation
 9 on the Grenfell Tower drawings?
 10 A. I can't remember. I probably would have seen them when
 11 I was doing the structural calculations, but I can't
 12 remember.
 13 Q. Now, do you agree that that is the marking that's
 14 commonly used for mineral wool in the industry?
 15 A. I wouldn't -- I work on projects now where people use
 16 all different kinds of hatches and symbols for different
 17 insulation, so I wouldn't be able to say that that was
 18 commonly used for Rockwool.
 19 Q. I see. So at the time you wouldn't have noticed that
 20 that was a symbol that maybe suggested a different type
 21 of product?
 22 A. No.
 23 Q. No. Okay, thank you.
 24 Just before we leave this drawing, on the right, we
 25 looked yesterday at the Studio E architect's red stamp

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1 and we can see it there. Under A we see "Conforms to
 2 design intent", and under B we see "Conforms to design
 3 intent" and then "subject to incorporation of comments".
 4 Do you see that there?
 5 A. Yes.
 6 Q. I wanted to ask you about the meaning of "design
 7 intent". Did you ever think on the project about what
 8 the meaning of design intent was? Was that ever
 9 something that you thought about?
 10 A. No, I was focused on another project. I wasn't looking
 11 at this project in that amount of detail at all.
 12 Q. Did you know more generally that the architect was
 13 reviewing the drawings for design intent?
 14 A. No.
 15 Q. No, that wasn't something you were aware of? No, okay.
 16 So picking back up on the topic of the ACM panels,
 17 we've previously discussed class 0 and you've given
 18 evidence already about what your understanding was about
 19 that classification. I just want to turn up where we
 20 see the definition of that. This is at
 21 {CLG00000224/122}. So this is in Approved Document B.
 22 If we look on the left column in the middle of the page
 23 we see paragraph 13. Do you see that there?:
 24 "The highest National product performance
 25 classification for lining materials is Class 0. This is

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1 achieved if a material or the surface of a composite
 2 product is either:
 3 "a. composed throughout of materials of limited
 4 combustibility; or
 5 "b. a Class 1 material which has a fire propagation
 6 index (i) of not more than 12 ..."
 7 Do you see that there?
 8 A. Yes.
 9 Q. I wanted to ask you about the reference there in the
 10 main part of that paragraph to "lining materials".
 11 I appreciate you said that you weren't familiar with the
 12 detail of Approved Document B at the time of the
 13 Grenfell project, but was it your understanding that
 14 class 0 was a classification that was primarily
 15 concerned with lining materials?
 16 A. No. My only understanding of class 0 was -- at that
 17 point in my career was that it was non-combustible, but
 18 it always needed to be referred back to the fire
 19 consultant.
 20 Q. So you didn't ever think about whether the fact that it
 21 was primarily a classification for lining materials
 22 might have impacted on its reliability as
 23 a classification for composite products?
 24 A. No, I was completely unaware of that at that point in my
 25 career.

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1 Q. Did you ever think about how class 0 applied to
 2 composite cladding products?
 3 A. No.
 4 Q. Now, we know that Harley obtained the BBA certificate,
 5 the 2008 BBA certificate, for the Reynobond panels.
 6 Harley obtained it from Deborah French at Arconic on
 7 23 April 2014, when it was sent to Mark Harris and
 8 Mike Albiston. I don't think we need to turn it up.
 9 The reference for that email is {CEP000000281}.
 10 I want to ask you: were you ever sent the
 11 BBA certificate for the Reynobond panels during the time
 12 that you worked on the Grenfell project?
 13 A. Not that I have any memory of. I was completely focused
 14 on the other project and only looking at Grenfell when
 15 I was asked to look at specific small items or help out.
 16 Q. Can we just turn up that BBA certificate. It's at
 17 {BBA00000047}. So we can see there that it's British
 18 Board of Agrément in the top right-hand corner,
 19 certificate number 08. We can see, looking at the
 20 bottom of the page in the paler blue box, that the date
 21 of first issue was 14 January 2008, so significantly
 22 before the Grenfell project.
 23 Looking at this now, do you think that this was
 24 a document that you had seen at the time you were
 25 working on the Grenfell project?

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1 A. I'd seen other BBA certificates to pass through to the
 2 design teams on other projects, but I don't believe
 3 I saw it in relation to Grenfell.
 4 Q. Were you familiar with BBA certificates more generally,
 5 then, in terms of what their status was, what their
 6 significance was?
 7 A. They were something that was asked for by the design
 8 team, and you would usually request them and pass them
 9 on for review.
 10 Q. Would you ever read those certificates for the products
 11 that Harley was using on its cladding jobs?
 12 A. If they were asking for something specific, I might have
 13 a look to see whether it had it in there to save wasting
 14 their time, but I would always send it on because
 15 I wasn't trained in those aspects.
 16 Q. And Harley never provided you with any guidance or
 17 training on how to read these certificates or interpret
 18 them?
 19 A. No.
 20 Q. Do you think you had read this BBA certificate for the
 21 Reynobond panels at the time of the Grenfell project?
 22 A. I can't remember reading it on that project.
 23 Q. So we can see on that first page, under "Key factors
 24 assessed" in the second half of the page, that there's
 25 a statement about behaviour in relation to fire. It

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1 says there:
 2 "In relation to the Building Regulations for
 3 reaction to fire, the panels may be regarded as having
 4 a Class 0 surface in England and Wales ..."
 5 Do you see that there?
 6 A. Yes.
 7 Q. Do you remember noticing that about those panels in this
 8 BBA certificate?
 9 A. No, I wasn't worked closely on the project and I wasn't
 10 responsible for the selection of materials, so
 11 I wouldn't have been looking at this. I was responsible
 12 for the structural design.
 13 Q. Now, I think you've said that, at the time of the
 14 Grenfell refurbishment project, you did not appreciate
 15 that these panels were available with a polyethylene,
 16 PE, core but also with an FR, fire retardant, core.
 17 That's right, is it?
 18 A. Yes.
 19 Q. Can you help us as to why Harley appear only ever to
 20 have advanced the PE variant and never suggested the FR
 21 variant?
 22 A. No, I had no part in the selection of materials.
 23 Q. Did you ever seek any advice from Arconic about the
 24 suitability of using the Reynobond panels with a PE core
 25 at Grenfell?

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1 A. No, I played no part in the selection of materials on
2 Grenfell .
3 Q. I just want to look at page 5 under section 6
4 {BBA00000047/5}. There's a section here on behaviour in
5 relation to fire . Do you see that there?
6 A. Yes.
7 Q. Again, looking at this now, do you think this might have
8 been something that you had read prior to the Grenfell
9 project?
10 A. No.
11 Q. So you wouldn't ever look to read this kind of detail in
12 the certificate ?
13 A. On other projects , if someone was asking for something
14 specific , I might look to see, like I said, to make sure
15 I wasn't wasting their time. But I didn't understand
16 the fire regulations , so I wouldn't assume to make any
17 judgement on it. I would always pass it back.
18 Q. Yes.
19 A. The area of specialism that I had was structural
20 engineering.
21 Q. We can see at 6.1 and then at 6.2 that it's discussing
22 both a standard sample of the product with a certain
23 coating and then a fire retardant sample of the product
24 with a different coating. Do you see that there?
25 A. Yes.

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1 Q. Again, I'm going to ask you again: does that remain your
2 evidence, that you weren't aware that there were these
3 two different types of Reynobond panels?
4 A. No, I was not aware.
5 Q. At paragraph 6.4 it says:
6 "These performances may not be achieved by other
7 colours of the product and the designations of
8 a particular colour should be confirmed by:
9 "England and Wales - Test or assessment in
10 accordance with Approved Document B ..."
11 Now, was that something that you were aware of at
12 the time of the Grenfell project? I appreciate you say
13 you didn't read this detail , but were you aware that
14 there might be differences in terms of fire performance
15 as between different colours of the product?
16 A. No.
17 Q. To your knowledge, were any investigations ever made as
18 to the fire performance of the finish for the Grenfell
19 panels that were used, the smoke silver?
20 A. No, I wasn't working closely enough on the project to
21 know how the materials were selected at all .
22 Q. And then at 6.5 it says:
23 "For resistance to fire , the performance of a wall
24 incorporating the product, can only be determined by
25 tests from a suitably accredited laboratory, and is not

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1 covered by this Certificate ".
2 Do you see that there?
3 A. Yes.
4 Q. Did you have any awareness that the performance of
5 a wall incorporating products of this nature could only
6 be determined by tests from a suitably accredited
7 laboratory?
8 A. That's something I didn't learn until I went to
9 Bath University .
10 Q. At 6.6 it says:
11 "Cavity barriers should be incorporated behind the
12 cladding, as required by the national Building
13 Regulations, but should not block essential ventilation
14 pathways. Particular attention should be paid to
15 preventing the spread of fire from within a building
16 breaching the cladding system through window and door
17 openings."
18 Do you see that there?
19 A. Yes.
20 Q. Did you have any more general awareness at this time
21 that , when using these types of panels, particular
22 attention ought to be paid to preventing the spread of
23 fire from within a building through windows?
24 A. My only awareness of cavity barriers at that point was
25 to always produce elevations that showed where they

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1 were, which you'd then send off to the fire consultant,
2 who would add or remove them as they felt necessary.
3 Q. Yes.
4 At this time, were you aware that there was
5 a statement in Approved Document B which made clear that
6 any test evidence used to substantiate the fire
7 resistance rating of a construction should be carefully
8 checked to ensure that it demonstrates the compliance
9 that's adequate?
10 A. No.
11 Q. You weren't aware of that?
12 A. No.
13 Q. Was that Harley's practice more generally though?
14 Were you aware that Harley had a practice of ensuring
15 that the fire resistance rating of a construction
16 product was carefully checked by reference to test
17 evidence?
18 A. On other projects that had similar questions raised ,
19 I would send off the information to a fire consultant
20 and they would examine the evidence and confirm whether
21 it did or didn't comply.
22 Q. Yes. On the Grenfell project , were you ever aware of
23 that process having happened?
24 A. I wasn't working closely enough on the project to have
25 seen whether that process happened or not.

12

1 Q. Okay.
 2 Just another topic now.
 3 Did you ever have any informal meetings with
 4 Studio E and Building Control to discuss the design of
 5 the cladding on site?
 6 A. No, I was -- apart from trying to act as a stop-in at
 7 the beginning, I was fully focused on another project.
 8 Q. Mr Crawford of Studio E, when he gave evidence to the
 9 Inquiry, stated that there were a number of informal
 10 workshops with RBKC Building Control where drawings were
 11 discussed. Do you have any recollection of any such
 12 meetings taking place, as far as you were aware?
 13 A. No.
 14 Q. Did you ever attend site and meet any representatives of
 15 Building Control?
 16 A. There may have been somebody there at those first two
 17 meetings. I have no recollection.
 18 Q. Can we just look at Mr John Hoban's statement briefly.
 19 So he was one of the Building Control officers who was
 20 responsible for the Grenfell Tower refurbishment
 21 project. I want to pull up his witness statement. This
 22 is {RBK00033934/7}. So this is Mr Hoban's statement.
 23 I want to look at what he says at paragraph 65. We can
 24 see at 64 above it, he's asked:
 25 "What advice or information was available, and what

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1 assessments were made, about the components that
 2 comprised the exterior of the building, their fire
 3 safety, fire - resistance and compliance with safety
 4 standards ..."
 5 Do you see that there?
 6 A. Yes.
 7 Q. And he says:
 8 "65. I was provided with initial drawings and
 9 details and discussed the works with the architect and
 10 his specialist consultant dealing with fire matters."
 11 Then he says this:
 12 "I also had a brief discussion with the engineer
 13 from the contractors installing the cladding system to
 14 the exterior of the building at the commencement of the
 15 works to the exterior.
 16 "66. During that discussion I recall that I was
 17 advised by the engineer that tests had been carried out
 18 to the metal framework supporting the cladding. I also
 19 recall that I was advised that the system had been
 20 fitted to many buildings throughout England and Wales to
 21 buildings of a similar height and construction."
 22 Do you see that there?
 23 A. Yes.
 24 Q. What we'd like to know is whether it might have been you
 25 who was the engineer from the contractors installing the

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1 cladding system that Mr Hoban spoke to during this brief
 2 discussion?
 3 A. I don't have any memory of this. I don't think it was
 4 myself. I don't know if he's referring to the engineers
 5 actually installing the cladding on the job.
 6 Q. Well, who would you think that was?
 7 A. You know, the -- I don't know. The actual guys using
 8 the tools to install it on site.
 9 Q. He's described as "the engineer from the contractors
 10 installing the cladding system". It doesn't sound like
 11 the installers of the cladding, it sounds like somebody
 12 perhaps more qualified than that. Would you agree?
 13 A. I don't know. A lot of people refer to engineers as in
 14 installers and engineers, they use it as quite a broad
 15 term.
 16 Q. I see.
 17 Do you have any recollection of speaking to RBKC
 18 Building Control or, more specifically, Mr Hoban?
 19 A. No, until I was given evidence, I wouldn't have been
 20 able to say who the Building Control was or who the
 21 particular person was. I have no memory of ever
 22 speaking to them.
 23 Q. If you go over the page at paragraph 67, over on page 8
 24 {RKB00033934/8}, he also says in the last sentence of
 25 that:

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1 "I was also advised at the initial meeting on site
 2 by the specialist consultant that the cladding would
 3 comply with the standards set out in Approved
 4 Document B."
 5 So, just for completeness, that's what Mr Hoban says
 6 about those exchanges. Is your evidence the same in
 7 terms of whether you can recall being involved in any
 8 discussions with him?
 9 A. No, my involvement was so small on the project that
 10 I don't remember this at all.
 11 Q. Thank you.
 12 So I now want to turn to some exchanges that
 13 occurred in March 2015, which began with some queries
 14 about cavity barriers.
 15 Can we turn first up to {HAR00006585/3}. So this
 16 is, if we look at the bottom half of the page, an email
 17 from Ricky Kay at Siderise to Ben Bailey on
 18 26 March 2015. Do you see that there?
 19 A. Yes.
 20 Q. The discussion is around the integrity of the cavity
 21 barriers. So he says:
 22 "Hi Ben,
 23 "Apologies for the delay ...
 24 "Please find below extract from the Approved
 25 Document B of the Building Regulations."

16

1 And he's set out an extract from table A1 there
 2 relating to the performance of cavity barriers for
 3 integrity and insulation. Then below that he has
 4 indicated that here you can see it's 30 minutes'
 5 integrity and 15 minutes' insulation that's required.
 6 Do you see that there?
 7 A. Yes.
 8 Q. So there's a query about that. If we can just look at
 9 the rest of Mr Kay's email, if we just scroll down
 10 {HAR00006585/4}. So he's justifying why their cavity
 11 barriers will meet those integrity and insulation
 12 requirements, and in fact will exceed the minimum
 13 requirements.
 14 Then if we scroll up to the bottom of page 2, top of
 15 page 3, Ben Bailey then responds. Perhaps if we can
 16 just see the date of the email on the page before, the
 17 bottom of page 2 {HAR00006585/2}. So on 26 March, the
 18 same day, Ben Bailey responds to Simon Lawrence,
 19 Simon O'Connor and others. You're not copied in at this
 20 point. He says:
 21 "Simon ..."
 22 Then if we can read up {HAR00006585/3}:
 23 "As discussed, please see the email below from the
 24 firebreak supplier. There is quite a large cost
 25 difference between what Siderise and the spec recommend,

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1 and upgrading to the 120min barriers we discussed on
 2 Tuesday.
 3 "Could you forward this to the client's
 4 representative for approval please."
 5 Do you see that there?
 6 A. Yes.
 7 Q. So Ben is making clear that there has obviously been
 8 a discussion about whether or not these barriers should
 9 be upgraded to 120-minute barriers, and there's some
 10 push-back here because of the large cost difference. Do
 11 you see that there?
 12 A. Yes.
 13 Q. Do you remember this episode where there was pressure on
 14 site to avoid having to specify cavity barriers with
 15 120-minute fire resistance?
 16 A. I don't remember it, but I've been shown the information
 17 since.
 18 Q. So if we scroll up then {HAR00006585/2}, an email above
 19 that, we can see Simon Lawrence's response. So
 20 Simon Lawrence says just to Neil Crawford:
 21 "Hi Neil,
 22 "Following Tuesday's design meeting, Harley via
 23 their supply chain are questioning the rating of the
 24 cladding firebreaks. Apparently by going to 2hrs as we
 25 discussed has a cost increase of around £12k. Their

18

1 supplier is saying it only needs to be 30mins everywhere
 2 as per the Regs extract below.
 3 "Could you take a look to see what you think and
 4 discuss with John Hoban please?"
 5 Do you see that there?
 6 A. Yes.
 7 Q. Then if we go to the bottom of page 1 {HAR00006585/1} of
 8 this chain, we can see on 27 March -- so it's the email
 9 in the middle there -- so that same day, to you,
 10 Ray Bailey copies you in on this chain and says:
 11 "Dan,
 12 "Do you have any comments?"
 13 Do you see that there?
 14 A. Yes.
 15 Q. And we see your response at the top of the page. So
 16 there it is, on the same day, and you say this:
 17 "Just that it's ridiculous."
 18 "There is no point in 'fire stopping', as we all
 19 know; the ACM will be gone rather quickly in a fire!
 20 "The whole point is to stop 'unseen' fire spreading
 21 in the cavity and moving to other parts of the building.
 22 "Who is John? And who is Paul?
 23 "Are we working to the NBS spec by Studio E?"
 24 Do you see that there?
 25 A. Yes.

19

1 Q. I want to ask you about that response.
 2 What precisely did you mean by the comment, "Just
 3 that it's ridiculous"?
 4 A. From my training with structural design, I knew that
 5 aluminium façades were unable to resist a fire for very
 6 long at all and would just melt and fall off the
 7 building. So putting in a two-hour firebreak on that
 8 kind of façade was a waste of time.
 9 Q. Now, you say, "From my training with structural design";
 10 what you've just expressed there is an opinion about the
 11 performance of the aluminium in a fire, isn't it?
 12 A. Yes, because in structural design, you have to consider
 13 how materials perform in fire.
 14 Q. Yes.
 15 A. For the outside of the façades on any job, unless it's
 16 specifically required, they're not required to stay on
 17 the building in a fire. The failure mode for cladding
 18 in a fire is that it will melt and fall off.
 19 Q. So what exactly was it about the ACM which would mean it
 20 would be gone rather quickly in a fire?
 21 A. That it was made from aluminium.
 22 Q. And what did that mean to you?
 23 A. That it would melt at a much lower temperature than
 24 steel would.
 25 Q. Can you describe what the mechanism of failure would be

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1 for the aluminium composite material? What were you
 2 envisaging at the time?
 3 A. That basically the aluminium rails and the brackets that
 4 supported them and the ACM would melt and fall off.
 5 Q. Did the core of the ACM panel feed into your thinking
 6 when you made this comment?
 7 A. No.
 8 Q. Were you thinking about the combustibility of the panel?
 9 A. No, not at all.
 10 Q. And how did you obtain this knowledge about how the ACM
 11 would perform in a fire?
 12 A. I was speaking generally across the whole cladding,
 13 including the ACM, the cladding and the bracketry, from
 14 knowing how aluminium performs in a fire.
 15 Q. Isn't it possible, thinking back to that presentation by
 16 Sarah Colwell that we know you attended that we
 17 discussed yesterday, that you were aware that there were
 18 issues with aluminium composite material involving PE
 19 cores and their propensity to promote the spread of fire
 20 across walls?
 21 A. No, this is the fact that aluminium will melt quickly in
 22 a fire and is a fact that's known throughout the
 23 industry, that in a fire an aluminium façade will not
 24 last very long; it will melt and fall off the building.
 25 Q. In the next sentence beginning:

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1 "The whole point is to stop 'unseen' fire ..."
 2 Can you explain how your view about the ACM was
 3 affecting your view about the cavity barriers? Can you
 4 explain that for us?
 5 A. Because the view is that, if it's going to melt and fall
 6 off the building, there's no point in putting a two-hour
 7 firestop on there.
 8 Q. So am I right that there you are expressing an opinion
 9 about unseen fire spread and what the requirement for
 10 cavity barriers was?
 11 A. Yes, from the opinion that I'd found on other projects,
 12 but it wasn't an educated opinion. The educated part of
 13 the opinion was that, in a fire, structurally, aluminium
 14 will fail very quickly, and reading down the email, you
 15 can see that the requirement was 30 minutes. Why
 16 would you put two hours on?
 17 Q. How is it consistent with your evidence that you were
 18 only ever concerned with structural matters that here we
 19 see you expressing an opinion about cavity barriers and
 20 unseen fire spread across the building?
 21 A. Because it's what I'd picked up from the email further
 22 down and from picking up bits and pieces over the years,
 23 but it wasn't an area I was trained in or had any
 24 knowledge in. On the other projects that I worked on,
 25 I would always send off the drawings to the consultants

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1 to be checked.
 2 Q. But you've used a phrase there "as we all know". This
 3 doesn't seem like you've just had a look at the email
 4 chain and then you're expressing an opinion.
 5 A. No, as we all know, aluminium melts. We're all well in
 6 knowledge of that.
 7 Q. Was it your view that the cavity barriers would have
 8 nothing to expand against to resist the fire spread
 9 because the aluminium would melt?
 10 A. Usually the -- from experience now, looking back, the
 11 cavity barriers are only required to perform for a very
 12 short amount of time because of that. That's why
 13 30-minute fire barriers are selected.
 14 Q. Did you ever think about how a cavity barrier would work
 15 with an aluminium panel in front of them if you thought
 16 the panel was going to melt?
 17 A. From all the videos that I'd sort of been shown by
 18 people at the MSC, it's been shown that most façades
 19 only last for about 15 minutes in a fire. So it's only
 20 to give you that length of protection.
 21 Q. Yes, but you didn't know that at the time, did you?
 22 A. No.
 23 Q. Because you hadn't done that course.
 24 A. But I knew that aluminium melted at a lower temperature.
 25 I'd know that it would last for a period of time, just

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1 not very long at all.
 2 Q. Given what you knew about how the ACM would behave in
 3 a fire, how did you think the external wall would
 4 adequately resist the spread of fire over the walls?
 5 Was that ever something you thought about at this point?
 6 A. No, the combustibility of the panels was not something
 7 that I ever thought about, only that they would melt and
 8 that there was no structural requirement for them to not
 9 melt.
 10 Q. That phrase "as we all know", are you saying it was
 11 common knowledge across the cladding industry that
 12 aluminium would behave this way or more generally across
 13 the construction industry?
 14 A. I think it's basic physics. It's known across the
 15 industry. I mean, it's what I was taught, you know, on
 16 the MSC as well in the years subsequently, that
 17 aluminium melts.
 18 Q. When you were writing this email, did you ever pause and
 19 think: well, there are fire safety issues around ACM
 20 that we ought to make sure have been looked at?
 21 A. This didn't raise any fire safety issues with ACM to me
 22 at all. It is just that it would melt and I was --
 23 Q. You see -- sorry, carry on.
 24 A. It was just that I was being sent little things like
 25 this and I was fully focused on another project.

24

1 Q. We saw that third line :
 2 "The whole point is to stop 'unseen' fire spreading
 3 in the cavity and moving to other parts of the
 4 building."
 5 Did you consider the possibility that there could in
 6 fact be unseen fire spread behind the panels before they
 7 failed ?
 8 A. Not if there's cavity barriers .
 9 Q. So you didn't think that it might be an issue that there
 10 was unseen fire spread behind those panels before they
 11 failed ?
 12 A. No, because the cavity barriers were going to be
 13 installed . Whether they were two-hour cavity barriers
 14 or half-hour cavity barriers as required, they would be
 15 installed and stop that from occurring.
 16 Q. Now, you say in the last line :
 17 "Are we working to the NBS spec by Studio E?"
 18 Why did you query that? What was the relevance of
 19 that?
 20 A. I was probably asking what was in the NBS spec. I mean,
 21 I was completely focused on another project and being
 22 sent small little tasks to do on Grenfell. I didn't
 23 have an overall idea of what was going on. It was --
 24 you know, at that point Kevin and Ben were running with
 25 the project.

25

1 Q. So you didn't know that by now? This is March 2015.
 2 You weren't aware of whether they were working to the
 3 NBS spec and, indeed, what the NBS spec said? You
 4 weren't aware of that at this point?
 5 A. No.
 6 Q. Why did you think that Ray Bailey was asking you for
 7 your views? If, as you say, Ray Bailey would have
 8 understood that you didn't have the qualifications to be
 9 commenting on fire and fire performance, why do you
 10 think he was asking you for your view on this cavity
 11 barrier point?
 12 A. Just for another opinion, from things picked up in the
 13 industry.
 14 Q. Let's consider the topic of cavity barriers then in more
 15 detail now.
 16 Based on the email exchanges we were just looking
 17 at, do you agree that you knew that cavity barriers
 18 would have little function in preventing fire spread if
 19 a fire got into the cavity between the insulation and
 20 the ACM cladding?
 21 A. It's still the same case now, that the cavity barriers
 22 in a rainscreen cladding are only required to give
 23 a small resistance because -- after which point there
 24 will be no cavity. The aluminium will melt and fall
 25 off, at which point there won't be any unseen fire

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1 spread because there's no cavity .
 2 Q. But there might still be fire spread, fire spread up
 3 other materials, including the insulation, and there
 4 might be fire spread through the core of these panels.
 5 Would you not accept that?
 6 A. Looking back on it now, I would accept that, but at the
 7 time nobody was aware that any of these materials were
 8 combustible.
 9 Q. But given your awareness of the limitations of cavity
 10 barriers, as we see in this email, did you ever consider
 11 how important it was to prevent the fire spread into the
 12 cavity in the first place?
 13 A. Not on this project because I wasn't working closely
 14 enough to it .
 15 Q. So why not? You're the design manager. Why did you
 16 never think about stopping fire spread into that cavity
 17 in the first place?
 18 A. Because I was the design manager responsible for making
 19 sure that Kevin was working to programme. Once there
 20 was a project manager involved, I was barely involved
 21 with the project at all, and through all of that, I was
 22 fully focused on another project .
 23 Q. At the time of the Grenfell project, were you aware in
 24 general terms of Building Regulation functional
 25 requirement B3.(4), that the building should be designed

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1 and constructed so that the unseen spread of fire and
 2 smoke within concealed spaces in its structure and
 3 fabric is inhibited? Were you aware of that?
 4 A. I wasn't aware of it in those terms. I knew that cavity
 5 barriers were required to stop fire spreading in the
 6 cavity but I wasn't in the knowledge of what that
 7 requirement was.
 8 Q. Can we just look at Approved Document B, just to test in
 9 general terms what your knowledge was. Can we go back
 10 to that. That's {CLG00000224/82}. So if we look there
 11 at paragraph 9.1 at the top of that page, it says this :
 12 "Concealed spaces or cavities in the construction of
 13 a building provide a ready route for smoke and flame
 14 spread. This is particularly so in the case of voids
 15 in, above and below the construction of a building, e.g.
 16 walls, floors, ceilings and roofs. As any spread is
 17 concealed, it presents a greater danger than would
 18 a more obvious weakness in the fabric of the building."
 19 Do you see that there?
 20 A. Yes.
 21 Q. Did you have a general awareness of the dangers posed by
 22 concealed spaces and unseen fire spread at the time of
 23 the Grenfell project?
 24 A. Yes, I had a general awareness of it, and that's why
 25 I always sent it off to the experts.

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1 Q. We see at the bottom of that page diagram 33,
 2 "Provisions for cavity barriers". Do you see that
 3 there?
 4 A. Yes.
 5 Q. If we look at that. Now, I know you've said you didn't
 6 read ADB at the time of the Grenfell project, but
 7 I think you said yesterday that sometimes you were sent
 8 little extracts from it on projects or professionals
 9 would refer to bits of it.
 10 A. Yes.
 11 Q. Had you ever seen diagram 33 -- well, did you see it
 12 during the time of the Grenfell project or any time
 13 before you worked on the Grenfell project?
 14 A. I think on some other projects I may have been sent it.
 15 Q. So you think you were probably familiar with this
 16 diagram at the time you worked on the Grenfell project?
 17 A. Not familiar; I was aware of it.
 18 Q. And did you ever think to have a look at it? So we saw
 19 just now you were providing Ray Bailey with your
 20 thoughts about cavity barriers and performance. Did you
 21 ever think to have a look at the cavity barrier
 22 provisions in Approved Document B when you gave that
 23 advice?
 24 A. No, because it wasn't my area of expertise.
 25 Q. Do you agree with me, looking at this now, that it's

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1 clear that cavity barriers ought to be provided to close
 2 around openings?
 3 We can see the grey shading, which is the code for
 4 cavity barriers in the key below, and we've got that
 5 label at the bottom left, "Close around openings", and
 6 you can see cavity barriers at the head and the sill of
 7 that opening. Do you see that there?
 8 A. Yes, I see that there. But subsequently, after
 9 Grenfell, working on other projects, I would disagree
 10 that this was clear, and I think that this diagram made
 11 it confusing because it was showing it for a house
 12 rather than a tower block, and I think it was further
 13 confusing by the fact that they showed the cavity
 14 barriers in such a light colour. I've experienced many
 15 problems since then where these were scanned and sent to
 16 people and they didn't come out, and subsequently
 17 Approved Document B has been revised to make that
 18 clearer.
 19 Q. I see. But just to be absolutely clear, your evidence
 20 was you didn't consider this --
 21 A. No.
 22 Q. -- diagram at the time of Grenfell? So this is your
 23 subsequent reasoning. And even if the grey comes out,
 24 we've still got the "Close around openings" and the
 25 arrows, haven't we?

30

1 A. Yes.
 2 Q. So would you agree with me, looking at this now, that it
 3 is clear that there should be cavity barriers around the
 4 windows, certainly at the head and the sill of a window?
 5 A. Looking at this now, yes.
 6 Q. And if we can go on and look at 9.3 of ADB, which is
 7 I think the next page, 83 [CLG00000224/83], we see there
 8 it says in the text as well:
 9 "Cavity barriers should be provided to close the
 10 edges of cavities, including around openings."
 11 Do you see that?
 12 A. Yes.
 13 Q. It couldn't be clearer, could it?
 14 A. No.
 15 Q. Now, do you agree that Harley specified the cavity
 16 barriers that were to be used on the Grenfell Tower
 17 project, Siderise cavity barriers?
 18 A. From the evidence I've been shown subsequently, I can
 19 agree that. At the time, I wouldn't have known who
 20 specified them.
 21 Q. So that's in the Harley specification that we looked at
 22 earlier, {RYD00046822}. Let's bring that up, actually.
 23 So this is the familiar -- well, familiar to us now,
 24 I would say -- set of Harley specification notes, and
 25 you see in the bottom left-hand corner we've got

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1 firebreaks for the new-build zones and firebreaks for
 2 the refurb zones, and we can see that they're Siderise
 3 Lamatherm cavity barriers. Do you see that there?
 4 A. Yes.
 5 Q. Did you or, to your knowledge, anyone else at Harley
 6 ever make any investigations with Siderise as to whether
 7 those cavity barriers had ever been tested in
 8 a rainscreen system?
 9 A. Not that I'm aware of on that project. I wasn't working
 10 closely enough to it.
 11 Q. In your view, would it have been possible to comply with
 12 the guidance in diagram 33 at Grenfell Tower and to have
 13 put cavity barriers around the windows?
 14 A. You mean my view now, looking back?
 15 Q. Yes.
 16 A. Yes, it would.
 17 Q. Now, if we can return briefly to the requests for
 18 information that were sent on 17 September 2014 that you
 19 submitted, this is {EXO00001291}. So we looked at this
 20 yesterday, from you to Simon Lawrence,
 21 17 September 2014. So this is you asking about the
 22 required extent of the horizontal firebreaks within the
 23 cladding areas, and in the "Suggested Solution", you
 24 say:
 25 "We believe that they will be required at every

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1 floor level on the vertical columns, but not in the area
 2 of cladding between windows. This is because there is
 3 no 'chimney' effect here, and therefore the cladding
 4 will not add to the spread of fire."
 5 Do you see that there?
 6 A. Yes.
 7 Q. Now, prior to making that request and giving that
 8 suggested solution, did anybody look at any guidance,
 9 either in Approved Document B or any other relevant
 10 industry guidance -- and we know now there was other
 11 guidance -- as to what the extent of cavity barriers
 12 ought to be?
 13 A. Not that I'm aware of, no.
 14 Q. Can we now look at a Harley drawing. This is
 15 {HAR00008902}. Now, in this drawing, what we can see is
 16 that cavity barriers have been added to the design and
 17 are represented by the honeycomb mesh on the right. Do
 18 you see that there --
 19 A. Yes.
 20 Q. -- in the top right?
 21 Do you agree that cavity barriers in the location
 22 you've specified did allow a chimney effect at the nose
 23 of the column?
 24 A. I'm not familiar enough with the design of the job to be
 25 able to say that or not.

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1 Q. Can we then return briefly to the email chain that began
 2 with your request for information on 17 September 2014.
 3 If we go to {HAR00003638}, I want to read the email at
 4 the top of the chain.
 5 So, again, we looked at this yesterday:
 6 "Can you confirm your position in relation to
 7 Terry's comment below regarding combustibility and
 8 continuous cavity paths."
 9 Do you see that there?
 10 A. Yes.
 11 Q. He talks about John Hoban having been assiduous about
 12 checks at the Kensington Aldridge Academy.
 13 Did it concern you at the time that there did appear
 14 to be widespread confusion as to the use of cavity
 15 barriers in the façade amongst the professionals on the
 16 project?
 17 A. I think at the time my knowledge wasn't what it is now,
 18 from having been educated on it. It concerns me greatly
 19 now, looking back at it, but at the time I don't think
 20 I was educated enough to be able to form an opinion as
 21 to what they were saying.
 22 Q. Right.
 23 A. I was able to make judgements about how aluminium
 24 performed structurally and why putting two hours on
 25 didn't seem very logical to me, but I wasn't educated

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1 enough to question those people in those positions of
 2 authority.
 3 Q. If we can look within this chain, there's an email from
 4 Neil Crawford to Terry Ashton on 18 September, on page 3
 5 {HAR00003638/3} of this chain, at 12.18 in the middle of
 6 the page. So Neil Crawford says to Terry Ashton:
 7 "Hi Terry
 8 "Please see attached our sections and the initial
 9 drawings set we have had from Harleys. The initial
 10 drawings from Harleys are fairly limited but they
 11 attempt to establish the basic approach."
 12 Do you see that there?
 13 A. Yes.
 14 Q. Do you agree that the Harley drawings at this stage were
 15 limited in terms of what they showed?
 16 A. I can't remember what the Harley drawings would have
 17 shown at that stage.
 18 Q. Considering that work on site had started on
 19 2 June 2014, was it normal for detailed design questions
 20 such as these to be raised at this late stage?
 21 A. On other projects that I would have been the designer
 22 on, I would have expected things like that to have been
 23 closed out sooner.
 24 Q. Can you explain why we don't see a comprehensive
 25 strategy relating to cavity barriers at any point on the

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1 Grenfell project?
 2 A. No, I can't.
 3 Q. Whose responsibility was that, or would you have thought
 4 that was at the time?
 5 A. I would have thought that both the architect and
 6 Building Control and Rydon shouldn't have been able to
 7 sign off any of the design if they hadn't seen that
 8 first and they should have requested it.
 9 Q. Can we now look at an email, {HAR00003691}. This is
 10 an email from Simon Lawrence to Neil Crawford and
 11 Kevin Lamb and you are copied in there. We can see that
 12 at the top. It's dated 16 October 2014. Do you see
 13 that there?
 14 A. Yes.
 15 Q. Simon Lawrence says:
 16 "Gents,
 17 "I think we will definitely have an issue with
 18 kitchen window. We roughly marked it out in Flat 145
 19 and it oversails kitchen/lounge screen by around 200mm.
 20 "It looks bad.
 21 "Regards
 22 "Simon."
 23 Do you see that there?
 24 A. Yes.
 25 Q. Was this a reference to gaps being created by the

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1 positioning of the new windows significantly out from
 2 the position of the old windows?
 3 A. I have no idea. I was working on another project.
 4 I was being given bits and pieces to do here and there,
 5 but I wasn't keeping up with any of this because it
 6 wasn't relating to management of time or programme.
 7 Q. Did you ever consider whether the gaps created in that
 8 location were problematic from a fire safety
 9 perspective?
 10 A. I have no idea if this relates to gaps at all.
 11 Q. So you can't help us on that?
 12 A. No.
 13 Q. Now, just in terms of the cavity barrier design, I just
 14 want to look at this point at the NBS specification,
 15 this is {SEA00000169/69}, and look at clause 342. If we
 16 blow that up. So it's within the H92 rainscreen
 17 cladding section of the NBS specification, and it's
 18 headed "Contractor's design of rainscreen generally".
 19 We see there -- and we looked at this yesterday -- that
 20 the design standard was to the CWCT "Standard for
 21 systemised building envelopes". Do you see that there?
 22 A. Yes.
 23 Q. I think you said that you weren't aware that the system
 24 had to meet that CWCT standard; that's right, isn't it?
 25 A. No.

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1 Q. No, you weren't aware?
 2 A. No, I wasn't.
 3 Q. Now, that standard included providing effective
 4 firebreaks.
 5 Now, the NBS spec further required the system to
 6 contain firestopping to the requirements of the
 7 Building Regulations. We see that just down in the same
 8 section, can you see it says "Functional requirements"?
 9 A. Yes.
 10 Q. It says:
 11 "As specified in this section, with fire stopping to
 12 the requirements of the Building Regulations."
 13 Do you see that there?
 14 A. Yes.
 15 Q. Did you ever think about what that phrase meant in terms
 16 of Harley's work?
 17 A. I never read this document in its entirety.
 18 Q. Well, the H92 rainscreen cladding section is about
 19 eleven pages long, so even though the document is very
 20 large in its entirety, this H92 section is not huge.
 21 You can't remember reading the H92 section of it?
 22 A. No. I wasn't the designer on the project.
 23 Q. And if we look on at page 71 {SEA00000169/71} at
 24 paragraph 490, we can see there there's a requirement
 25 for cavity barriers to BS 476-20. Do you see that

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1 there?
 2 A. Yes.
 3 Q. So would you agree that this NBS specification is
 4 requiring firestopping to the requirements of the
 5 Building Regulations, including cavity barriers?
 6 A. Yes.
 7 Q. Yes.
 8 Now, we know that Studio E had produced drawings at
 9 tender stage which did include some references to cavity
 10 barriers. If we can look at this drawing, and we'll
 11 need the offline version, this is {SEA00002499}. I want
 12 to focus to begin with in the top right-hand corner, the
 13 "Proposed Section - Typical Bay". So this is one of the
 14 Studio E tender drawings.
 15 We can see there, and it's the fourth label down on
 16 the right-hand side, "P10 435", and there's a little
 17 hatched rectangle at the head of the window. It says
 18 this:
 19 "Ensure horizontal and vertical cavity barriers meet
 20 tightly."
 21 Do you see that there?
 22 A. Yes.
 23 Q. Do you remember being aware of that at the time that you
 24 were working on the Grenfell project, that the Studio E
 25 drawings did show some cavity barriers?

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1 A. No, I don't recollect that at all. I wasn't the
 2 designer on the project.
 3 Q. So you didn't think to familiarise yourself with the
 4 tender drawings as part of your job as design manager
 5 and in any supervision of Kevin Lamb's work?
 6 A. No, my supervision of Kevin Lamb's work was entirely
 7 limited to programme and passing information on to Ray.
 8 I was working on another project full-time. If I'd had
 9 the time to be able to look at this properly and work on
 10 it, then we wouldn't have employed Kevin.
 11 Q. I see.
 12 Staying with this drawing, if we go on the left --
 13 if we just zoom out for a minute and I'll find the right
 14 section -- I want to look at the proposed plan at cill
 15 level. So it's in the middle of the page on the left,
 16 if you go down to get that.
 17 Yes, so there you can see a column detail on the
 18 left, and we see a label coming out, "Cavity fire
 19 barrier in line with compartment wall" on the column.
 20 Do you see that there?
 21 A. Yes.
 22 Q. If you didn't look at these drawings at the time, does
 23 that mean that there's no point asking you about the
 24 other little bit of hatched -- or the other hatched item
 25 that's actually at the very corner of the column where

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1 it meets the spandrel? Can you see there's another bit
 2 of hatched drawing there?
 3 A. Yes.
 4 Q. This doesn't have a label.
 5 A. No.
 6 Q. And I wanted to ask you whether that might have
 7 indicated that a cavity barrier should be there, but you
 8 can't help us; is that right?
 9 A. Yes, that's right. I was just asked to be a face to
 10 Rydon until we get a designer involved, and once the
 11 designer was involved, I just had to make sure he was
 12 keeping up with his programme requirements.
 13 Q. Now, we can see that you're copied in to an email of
 14 14 January 2015 in which Kevin Lamb sent to
 15 Simon Lawrence the full set of drawings relating to the
 16 upper 20 floors of the windows, if we go to
 17 {RYD00027692}. We can see from that email that
 18 Kevin Lamb is sending it to Simon Lawrence and copying
 19 you and others in. He attaches a large number of
 20 drawings and he says:
 21 "Simon,
 22 "Please find attached a full set of drawings related
 23 to the upper 20 floors of windows, all now construction
 24 issue and to be manufactured accordingly.
 25 "Clearly the design has varied much, but now all as

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1 we agreed prior to Xmas."
 2 Do you see that there?
 3 A. Yes.
 4 Q. Did you check through those drawings to ensure you were
 5 broadly happy with them?
 6 A. No, I wasn't in a position or technically qualified to
 7 be able to check through those drawings and make sure
 8 I was broadly happy with them. So I would literally
 9 just have been checking that he was producing the
 10 drawings and making sure that the client was being kept
 11 happy from that point of view.
 12 Q. So that's why you're copied in, are you? Simply to
 13 check that he was producing something?
 14 A. Yes. I wasn't -- he was more experienced than me. He
 15 was brought in because he was more experienced.
 16 I didn't have the time and I was fully committed to
 17 another project.
 18 Q. Now, none of these drawings showed any cavity barriers
 19 around the windows. I just want to look at some of
 20 these drawings. If we can look at {RYD00027697}, this
 21 is a jamb detail showing the interface between the
 22 aluminium window frame and the column, including the
 23 cladding, the aluminium cladding, coming out with
 24 a strong black line at the bottom, and then the
 25 insulation along the column. Do you see that there?

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1 A. Yes.
 2 Q. Would you agree that there's no provision on this
 3 drawing for vertical cavity barriers at the window
 4 jambs?
 5 A. I agree that there's no cavity barrier shown on this
 6 drawing.
 7 Q. We've traced through the history of this drawing. We
 8 know it was never revised subsequently. We can see that
 9 from the Harley drawing register. We don't need to turn
 10 it up, but for the transcript that's {RYD00065622}.
 11 Did you ever discuss the topic of cavity barriers
 12 around the windows with Kevin Lamb?
 13 A. No, I was purely looking at structural requirements on
 14 this project. I was working on another project
 15 full-time, and the only instructions I'd been given by
 16 anybody was to keep an eye on his progress until
 17 a project manager could be appointed.
 18 Q. Kevin Lamb says in his witness statement that he --
 19 particularly at the beginning -- would have a number of
 20 discussions with you and Ray Bailey to think about the
 21 concept design. Does that mean you never discussed in
 22 any of those discussions anything to do with cavity
 23 barriers around windows?
 24 A. No, because I wasn't educated in that. On any other
 25 projects that I was working on, I would have always sent

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1 it off to the design team asking for their advice.
 2 Q. Can you help us as to why these drawings have been
 3 approved for construction without cavity barriers shown
 4 around the windows, given Approved Document B,
 5 diagram 33, that we looked at and other industry
 6 guidance that we looked at two days ago, which all make
 7 clear that cavity barriers should be provided around
 8 windows?
 9 A. No, I can't, because I wasn't involved with the design
 10 process there.
 11 Q. Can we look at an email of 3 March 2015. This is
 12 {SEA00012850}. This is an email from Mr Lamb to
 13 Simon Lawrence, but copying you and others in. He says:
 14 "Simon,
 15 "Please find attached drawings now showing the fire
 16 breaks, both horizontal and vertical.
 17 "We assume a requirement of 90min integrity & 30min
 18 insulation is sufficient, if not please advise.
 19 "The vertical breaks are not on all columns, just
 20 party walls."
 21 Do you see that there?
 22 A. Yes.
 23 Q. Can you help us as to who or what prompted Mr Lamb to
 24 include cavity barriers at this stage?
 25 A. No, I can't.

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1 Q. In your experience, would you expect cavity barriers to
 2 be such a late addition to the design process? This
 3 is March 2015.
 4 A. My experience now would be that they're always shown at
 5 the very beginning.
 6 Q. If we can turn to a drawing produced by Mr Lamb which
 7 was attached to this email, this is {HAR00008581}. This
 8 is Harley drawing C1059-200. Do you see that there?
 9 A. Yes.
 10 Q. There's a stamp, "Approved for construction". We can
 11 see in the little notes at the bottom of the page, in
 12 the table, that firebreaks have been added on
 13 3 March 2015. Can you see that there?
 14 A. Yes.
 15 Q. Panning out again, just looking at this elevation, we
 16 can see that there are hatched lines which now show
 17 vertical and horizontal firebreaks. Do you see that
 18 there? They're marked. They're labelled as well.
 19 A. Yes.
 20 Q. Can you see those? So they're around the compartment
 21 and up the sides of the columns.
 22 Is it your understanding that the word "firebreak"
 23 here is referring to cavity barriers?
 24 A. I have no idea what it would be referring to on these.
 25 Q. So you never queried that with Kevin Lamb? You never

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1 checked what he meant by "firebreak"?
 2 A. No, because I was just meant to be looking after his
 3 programme requirements, and probably at this stage he
 4 had a project manager to be reporting to instead.
 5 Q. The cavity barriers marked on this drawing are not
 6 located around the sides of the window, are they?
 7 A. Not shown on this drawing, no.
 8 Q. More specifically, the drawing does not show any cavity
 9 barriers around the head, sill or jambs of the windows
 10 themselves, does it?
 11 A. Not shown on this drawing, no.
 12 Q. Can you also see that the horizontal cavity barrier
 13 above the window is not at the level at the head of the
 14 window, but it's been moved up higher than that and
 15 a little way up the spandrel panel? Do you see that
 16 there?
 17 A. Yes.
 18 Q. Do you know why that was?
 19 A. No, I don't.
 20 Q. Did you ever query that?
 21 A. I would never have looked at these drawings in relation
 22 to the fire. I would have been purely looking at these
 23 drawings in relation to structural requirements.
 24 Q. Now, if we can go to another drawing, this is
 25 {HAR00008470}. So this is the window head detail where

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1 the aluminium window frame is coming up and meeting the
 2 return of the panel at the top of the window. Do you
 3 see that there?
 4 A. Yes.
 5 Q. Can you see that? And there's no provision for cavity
 6 barriers at the head of the window in this more detailed
 7 drawing, is there? It's a 1:2 drawing.
 8 A. No.
 9 Q. If we look at revision E of that drawing, produced on
 10 3 March 2015, this is at {RYD00000220}, and I think
 11 we'll need the offline version. That's it. So this is
 12 revision E, and we can see in the little table at the
 13 bottom in the middle, bottom of the page, that on
 14 3 March 2015, a firebreak has been added. Do you see
 15 that there?
 16 A. Yes.
 17 Q. So this is a more detailed image, it's a section which
 18 helps us see how Kevin Lamb had done it in that bigger
 19 elevation. You can see the firebreak now with the
 20 hatching, with the kind of honeycomb hatching,
 21 firebreak, and you can see how far up away from the head
 22 of the window it is. Do you see that?
 23 A. Yes.
 24 Q. Do you agree with me -- we've looked at it just now --
 25 that this was in contrast to the Studio E employer's

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1 requirements drawings that did show a cavity barrier
 2 directly at the head of the window?
 3 A. Looking at the two pieces of information presented to me
 4 now, I can agree with you on that.
 5 Q. Do you agree with me that that's a worsening in the
 6 cavity barrier strategy, because what you've got here
 7 then at the head of the window is a potential route for
 8 fire to pass into the cavity between the rainscreen
 9 panel and the insulation?
 10 A. Are you asking me with my knowledge now or --
 11 Q. Yes, actually, I am.
 12 A. Yes.
 13 Q. Now you've looked at these drawings.
 14 A. Yes.
 15 Q. But just to be clear, that wasn't something you noticed
 16 at the time or were aware of at the time?
 17 A. No.
 18 Q. Or even checked for at the time?
 19 A. No, I wasn't trained in that, I wouldn't know what the
 20 requirements were. If I had looked at these drawings,
 21 it probably would have been at an early stage to have
 22 designed the structural components for their structural
 23 performance.
 24 Q. Didn't you think it was important that somebody at least
 25 had a kind of general check of Kevin Lamb's designs for

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1 cavity barriers to check that they were broadly in
 2 compliance with relevant requirements?
 3 A. At Harley, I don't know who that would have been. And
 4 with all the other projects that I worked on, you always
 5 referred it back to the fire consultant to have that
 6 check done.
 7 Q. Why wouldn't that have been you on this job as the
 8 design manager?
 9 A. Because I was only responsible for ensuring that he was
 10 keeping to programme until a project manager could be
 11 appointed.
 12 Q. Had you worked on other projects by this time which did
 13 have cavity barriers around windows?
 14 A. Not that I can remember.
 15 Q. You'd never had experience of cavity barriers being
 16 designed around windows prior to Grenfell?
 17 A. No. A lot of the projects I'd worked on before -- I'd
 18 worked on a couple of cladding projects, but done a lot
 19 of curtain wall projects which were all internal, so it
 20 was firestops rather than cavity barriers.
 21 Q. I see. So your experience was curtain walling and
 22 firestopping, not rainscreen cladding and cavity
 23 barriers; is that what you're saying?
 24 A. I'd worked on projects with cavity barriers, but I'd
 25 always deferred to what I was told to do by the fire

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1 consultant and Building Control.
 2 Q. Can we just look at your witness statement. This is
 3 {HAR00010149/9}. I want to look at paragraphs 36 and
 4 37. So you say this:
 5 "36. With the benefit of hindsight and having
 6 regard to material I have seen since the tragedy (such
 7 as the drawings details produced by Harley and
 8 circulated by the media), I can see that window openings
 9 into the cavity should have been closed with cavity
 10 barriers as required by Approved Document B, Diagram 33.
 11 "37. As far as I am aware this was not part of
 12 Harley's package as a separate cavity closer was never
 13 shown on the architects details. Therefore, I would
 14 assume that the job of internally closing the window
 15 cavity as per Approved Document B paragraph 9.13(d)
 16 should have been carried out by another one of the
 17 subcontractors working for Rydon in relation to the
 18 internal fit out package."
 19 Do you see that there?
 20 A. Yes.
 21 Q. Now, given what we've seen this morning, what was said
 22 in the NBS specification and given that Harley had
 23 tendered and successfully been awarded the design of the
 24 complete entire external wall package, can you explain
 25 why you're saying it wasn't Harley's responsibility to

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1 provide cavity barriers around the windows?
 2 A. I think when I wrote this I hadn't been given the full
 3 information and I didn't remember what was on the
 4 project, and I thought that people were talking about
 5 the way that you would close the dry-lining to the back
 6 of the window, I thought people were talking about the
 7 cavity in there for paragraph 37.
 8 Q. So are you saying that you were mistaken in
 9 paragraph 37, given what you now know?
 10 A. I was mistaken into what cavity people were referring
 11 to.
 12 Q. It's clear, isn't it, from the contemporaneous
 13 documents, the emails, that RFI that you send on
 14 14 September 2014, that you thought that Harley had
 15 responsibility for putting in the cavity barriers,
 16 horizontal and vertical, on that façade?
 17 A. Yes, even looking back on it now, I would have thought
 18 it was Harley's responsibility.
 19 Q. Yes. And you say at paragraph 38 in the last sentence:
 20 "I believe that the architects should have included
 21 cavity barriers around the window openings in their
 22 design and the fire consultants and Building Control
 23 should have picked this up when reviewing the drawings."
 24 Do you see that there?
 25 A. Yes.

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1 Q. I appreciate what you've said about the architects, but
 2 can you help us as to why nobody at Harley picked up
 3 that there ought to be cavity barriers around the
 4 windows?
 5 A. Talking from hindsight and looking back, there were lots
 6 and lots of projects that didn't have cavity barriers
 7 around the windows. I don't think that it was known
 8 within the industry or appreciated because of the
 9 conversion from cavity masonry walls to rainscreen
 10 cladding. I think that a lot of people thought that it
 11 was something you did for cavity walls rather than
 12 rainscreen cladding. So I don't think that anyone at
 13 Harley knew that, and it doesn't appear that anybody
 14 further up the design team knew that as well.
 15 Q. I see. Okay.
 16 Cavity barriers in the crown. Did you ever think
 17 about, on the project, what was necessary in terms of
 18 cavity barriers at the head of the building or around
 19 the crown area?
 20 A. No, I wasn't involved enough in the project, but I can
 21 say that it's still something that is difficult for
 22 a lot of consultants to work out what to do at the head
 23 of buildings.
 24 Q. Okay.
 25 Did it ever occur to you or did you ever have any

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1 discussions with anyone on the Grenfell project about
 2 the potential risk of vertical or horizontal fire spread
 3 in relation to the crown if flames were at the top of
 4 the building?
 5 A. No.
 6 Q. Was that ever a topic that was discussed?
 7 A. No, I don't think that anyone was aware that any of the
 8 products were in the slightest bit combustible, so
 9 I don't think it would have been something that anyone
 10 considered throughout the whole design process.
 11 Q. Did you ever have any conversations with Mr Lamb about
 12 the positioning of cavity barriers at the head or around
 13 the crown of the building?
 14 A. No.
 15 Q. Can we turn to a document, {INQ00014064}. So this is
 16 a copy of your LinkedIn profile that was taken yesterday
 17 on 15 September 2020. I assume this is something you're
 18 familiar with?
 19 A. Yes.
 20 Q. We can see there your name at the top and your skills
 21 and the summary of your abilities and qualities there.
 22 Then what you've done is you've set out your experience
 23 below in reverse chronological order.
 24 I just want to look at page 2 {INQ00014064/2}, about
 25 what you say about your time with Harley. So there you

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1 explain you were with Harley for nine years and
 2 seven months, and you split out the time that you were
 3 a technical and engineering manager, between
 4 September 2015 and March 2016, and the time that you
 5 were a design manager, between September 2006
 6 and September 2015, nine years, one month. Do you see
 7 that?
 8 A. Yes.
 9 Q. That's entirely consistent with what you've said to us
 10 when we went through your background.
 11 I just want to look at what you say about your work
 12 as a design manager. You say:
 13 "Managing design, build and supply contracts to
 14 major contractors in the building industry.
 15 "The position involves taking the project from
 16 receipt of order through to completion, for which the
 17 job can be categorized as follows:
 18 "1. Detailing, design and survey.
 19 "2. Planning and co-ordinating.
 20 "3. Material procurement and production details.
 21 "4. Budgetary control.
 22 "5. Client liaison."
 23 Do you see that there?
 24 A. Yes.
 25 Q. So would you agree with me that there, you're

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1 summarising what you did at Harley as taking a project
 2 from start to finish and dealing with all the design
 3 elements relating to the cladding project? Would you
 4 accept that?
 5 A. On a project where I was the designer, yes.
 6 Q. And we see there in item 1, "Detailing, design and
 7 survey", it's not qualified in relation to structural
 8 design, is it?
 9 A. No. On those jobs, I would have been doing -- you know,
 10 I would have been doing the detailing design for putting
 11 the system components together to be signed off by the
 12 design teams.
 13 Q. And we've also got in item 3, "Material procurement and
 14 production details". So you do indicate that, during
 15 your time at Harley between September 2006
 16 and September 2015, one of your areas of responsibility
 17 as a design manager was for material procurement. Do
 18 you see that there?
 19 A. Yes, on the projects where I was a designer, that's what
 20 I would be doing.
 21 Q. And would you agree that there's no qualification there
 22 about only focusing on structural design?
 23 A. No.
 24 MS GRANGE: Mr Chairman, I've come to the end of my
 25 questions, but at this point it's customary to break and

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1 see if there are any others that I ought to pick up.
 2 SIR MARTIN MOORE-BICK: Yes. Shall we take the usual break
 3 at this time, and then you can collect your thoughts and
 4 decide whether there are any more questions that need to
 5 be asked?
 6 MS GRANGE: That would work perfectly, thank you.
 7 SIR MARTIN MOORE-BICK: Well, Mr Anketell-Jones, Ms Grange
 8 has got to the end of the questions that she thinks she
 9 needs to ask, but we have to give her a chance just to
 10 review things and decide whether there's anything that
 11 she needs to come back on.
 12 So we shall break now until 11.35, please, and then
 13 at that stage we will see if there are any further
 14 questions.
 15 Perhaps you would go with the usher, but please
 16 remember not to talk to anyone else about your evidence
 17 when you're out of the room.
 18 THE WITNESS: Yes, sir.
 19 SIR MARTIN MOORE-BICK: Thank you very much.
 20 (Pause)
 21 All right, 11.35, please.
 22 (11.20 am)
 23 (A short break)
 24 (11.37 am)
 25 SIR MARTIN MOORE-BICK: Right, Mr Anketell-Jones, we will

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1 see if there are any more questions for you.
 2 Ms Grange.
 3 MS GRANGE: Yes, just a few short questions.
 4 Whose job was it within Harley at the time of the
 5 Grenfell project to think about fire?
 6 A. There was nobody assigned across the whole company to do
 7 that role.
 8 Q. So just nobody was assigned to do it?
 9 A. No. Each individual person would look after the
 10 responsibility on their project.
 11 Q. Right. So does that mean it fell to Kevin Lamb to be
 12 thinking about fire on the Grenfell project?
 13 A. It would fall on Kevin and Ben.
 14 Q. Kevin and Ben, okay.
 15 A different topic. We looked at the phrase "design
 16 intent" this morning with reference to the Studio E
 17 stamp and what they were doing on the drawings.
 18 Just in more general terms, if you see on your
 19 projects the reference to "design intent" or "check for
 20 design intent" by an architect, what do you understand
 21 that to mean?
 22 A. You mean now?
 23 Q. Yes, now.
 24 A. Now I would always challenge that to get them to
 25 actually set out what that was in a matrix.

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1 Q. Assuming you couldn't challenge it, what do you think
 2 "design intent" means when referred to by an architect?
 3 A. So if I just had to look at it and assume what they were
 4 meaning?
 5 Q. Yes.
 6 A. I would assume that it met their intent drawings.
 7 Q. Aesthetically or in terms of statutory compliance, or
 8 both?
 9 A. Both.
 10 Q. And what about back at the time of the Grenfell project?
 11 If you'd been asked the question, what do you think
 12 an architect means when they use the phrase "design
 13 intent", what would your answer have been?
 14 A. I think it would have been the same then. It just
 15 wasn't -- on any of the other projects that I'd worked
 16 on, it had never been something that I'd noticed before.
 17 Q. I see.
 18 Now, we've been through a lot of material over the
 19 project in the last three days. Would you do anything
 20 differently if you had the chance to do it again?
 21 A. I think, looking back on it, because my limited -- my
 22 role was very limited in the whole thing, and I was only
 23 asked to dip in and out, look at one piece of
 24 information, one piece of information there, and to do
 25 a structural design, I think at that point I didn't have

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1 the education or the knowledge to have picked up on any
 2 signs that things were missing. So I don't think
 3 I could have done anything differently without the
 4 education that I have now.
 5 MS GRANGE: I see. Okay. Thank you.
 6 Mr Chairman, those are all my questions.
 7 SIR MARTIN MOORE-BICK: Good. Thank you very much.
 8 Well, Mr Anketell-Jones, those are the questions we
 9 have for you. Thank you very much for coming to give
 10 your evidence. I'm sorry it's taken a little longer
 11 than we originally thought it might, but at least you've
 12 finished now and you're free to go. Thank you very much
 13 indeed.
 14 THE WITNESS: Thank you.
 15 (The witness withdrew)
 16 SIR MARTIN MOORE-BICK: Now, Ms Grange, I think we probably
 17 have to rise for a minute or two for some cleaning
 18 purposes.
 19 MS GRANGE: Yes, I think some cleaning and other procedures
 20 have to happen before we hear from Mr Kevin Lamb.
 21 SIR MARTIN MOORE-BICK: Ten minutes long enough?
 22 MS GRANGE: Yes, I think ten minutes is fine.
 23 SIR MARTIN MOORE-BICK: Right. Well, we'll rise now and
 24 come back at 11.50.
 25 MS GRANGE: Thank you.

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1 SIR MARTIN MOORE-BICK: Thank you very much.
 2 (11.41 am)
 3 (A short break)
 4 (11.52 am)
 5 SIR MARTIN MOORE-BICK: Now, Ms Grange, your next witness,
 6 I think, is Mr Lamb; is that right?
 7 MS GRANGE: That's correct. Mr Kevin Lamb, thank you.
 8 SIR MARTIN MOORE-BICK: Could you ask Mr Kevin Lamb to come
 9 in, please.
 10 (Pause)
 11 MR KEVIN LAMB (affirmed)
 12 SIR MARTIN MOORE-BICK: Thank you very much.
 13 Good morning, Mr Lamb.
 14 THE WITNESS: Good morning.
 15 SIR MARTIN MOORE-BICK: Sit down. Make yourself
 16 comfortable.
 17 THE WITNESS: Thanks.
 18 SIR MARTIN MOORE-BICK: All right?
 19 Yes, Ms Grange.
 20 Questions by COUNSEL TO THE INQUIRY
 21 MS GRANGE: Yes, thank you.
 22 Thank you, Mr Lamb, for coming to give evidence
 23 today. We really appreciate it.
 24 If you have any difficulty understanding anything
 25 I'm saying to you or asking you in the course of your

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1 evidence, please ask me to repeat the question or put
 2 the point in a different way.
 3 A. Okay.
 4 Q. If you feel you need a break at any point, please let us
 5 know.
 6 Also, please try to keep your voice up because the
 7 lady to your right is taking down a transcription of
 8 what you're saying, so if you can keep your answers nice
 9 and clear, that's really helpful.
 10 Now, you've made a statement to the Inquiry. It's
 11 in a folder on your desk in front of you and it will
 12 appear on the screen. If we go to {HAR00010419}, we can
 13 see it there. If we turn to the final page
 14 {HAR00010419/23}, there we can see it's dated
 15 4 December 2018, and is that your signature?
 16 A. It is, yes.
 17 Q. Have you read that statement recently?
 18 A. Yes, I have.
 19 Q. Can you confirm that the contents are true?
 20 A. Yes.
 21 Q. Have you discussed your statement or your evidence with
 22 anybody before coming here today?
 23 A. No.
 24 Q. I just want to start by considering some questions about
 25 your background and qualifications. If we can start by

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1 looking at paragraph 4 of your statement on page 1
 2 {HAR00010419/1}, you tell us that, after leaving school,
 3 you began a career in mechanical engineering, and you
 4 indicate there some qualifications that you obtained in
 5 mechanical engineering. We see that there, yes?
 6 A. That's correct.
 7 Q. And then at paragraph 5, you say you entered the glazing
 8 and cladding industry in 1988.
 9 A. Yes.
 10 Q. And you started as a window installer in a small company
 11 and then you say:
 12 "Because of my engineering background I was also
 13 involved in manufacturing work in the factory, glazing
 14 on site and minor design and estimating in relation to
 15 shop fronts."
 16 We can see that there, yes?
 17 A. That's right.
 18 Q. Then if we go to paragraph 6 over the page
 19 {HAR00010419/2}, you tell us that in 1991 you were
 20 employed by FAS Limited, a large domestic PVC and
 21 aluminium window company, as a design and estimating
 22 manager?
 23 A. That's correct.
 24 Q. Do you see that there? Is it right that for that
 25 company, you tell us at the end of that paragraph, you

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1 designed windows and curtain walling; is that right?
 2 A. That's correct, yes.
 3 Q. So does that mean you weren't designing cladding
 4 systems, you were predominantly focused on curtain
 5 walling and windows?
 6 A. Exactly, yes.
 7 Q. And you refer to some Datech Autocad training courses.
 8 So are those courses to help you do computerised design
 9 work?
 10 A. Exactly, yes, that's right.
 11 Q. And then at paragraph 7 you say that shortly after that,
 12 in 1992, you joined another company called MetFab
 13 Systems --
 14 A. Yes.
 15 Q. -- a commercial aluminium company specialising in
 16 glazing, air traffic control towers and rainscreen
 17 cladding. Do you see that there?
 18 A. That's right, yes.
 19 Q. Now, that sounds like quite an eclectic mix, certainly
 20 the air traffic control towers.
 21 A. I think there's a limited supply for air traffic control
 22 towers, so you need something to fill up the gaps in
 23 between orders.
 24 Q. Yes, fair enough.
 25 You're saying there that you were a design manager

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1 specialising in rainscreen cladding; is that right?
 2 A. Yes.
 3 Q. So is that where cladding starts to come in as well as
 4 curtain walling?
 5 A. That's right, yes.
 6 Q. Then between 1996 and 2000, you tell us in the next
 7 paragraph, paragraph 8, that you were employed as
 8 a technical architectural adviser for cladding systems
 9 at a leading cladding company called Schuco?
 10 A. That's correct.
 11 Q. Do you see that there?
 12 Can you help us as to what your role as a technical
 13 architectural adviser involved?
 14 A. This was helping write NBS-type specifications. The
 15 primary role was regards to glazing. Although they did
 16 have a small amount of rainscreen cladding systems on
 17 offer, it wasn't a primary role.
 18 Q. Right. And just to be clear, you're not a qualified
 19 architect, are you?
 20 A. Not at all, no.
 21 Q. When you were working at Schuco, or prior to that,
 22 during any of your employment or studies before that,
 23 did you learn anything about the nature of thermoplastic
 24 materials and their behaviour in relation to fire?
 25 A. Not specifically, no.

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1 Q. Would you say that you developed a specialism working in
2 cladding in these companies?
3 A. No, my specialism was glazing, really, glazing and
4 curtain walling.
5 Q. Yes. And does that mean -- we'll get to the Grenfell
6 project in a moment -- that, prior to doing the Grenfell
7 project, you would have said your specialism was in
8 glazing and curtain walling but not in cladding?
9 A. On the whole, I was a freelance draughtsman, so I could
10 draw many different types of product, but my experience
11 was mainly in glazing.
12 Q. Yes.
13 During your career, did you ever undertake any
14 specific design qualifications which related to façade
15 engineering or something similar?
16 A. No.
17 Q. At the time of the Grenfell project had you ever
18 received any specific training or education on fire
19 safety within façade design?
20 A. No.
21 Q. Now, looking then at paragraph 9 of your statement,
22 which is up on the page here, you explain that you began
23 working as a freelance designer, trading under the name
24 Bespoke Designs --
25 A. Yes.

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1 Q. -- in 2000.
2 A. Yes.
3 Q. Can you help us as to what kind of design services you
4 were offering as Bespoke Design?
5 A. It's draughting work under the direction of various
6 clients. It was to cover a shortfall in clients' own
7 resource pool. So if they felt they had a project, they
8 didn't have the workforce to complete it, I might be
9 called in.
10 Q. So does that mean that the service you were offering was
11 not as a main designer of a façade but as a makeweight,
12 as someone who was making up a design team?
13 A. That's -- yes, simply, yes.
14 Q. Is that fair?
15 A. Yeah.
16 Q. If you don't agree, please --
17 A. Yes, I mean, it is -- not to belittle it, but it was, it
18 was to cover shortfall in resources.
19 Q. Now, in paragraph 10 of your statement, you explain
20 that, in total, you've had 30 years of experience in
21 design and manufacture within the cladding industry.
22 A. Yes.
23 Q. And you say in that paragraph that your career included
24 projects of varying sizes, including some with ACM
25 rainscreen cladding.

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1 A. Yes.
2 Q. Aluminium composite material rainscreen cladding, and
3 you've referred there to a car park project in
4 Hemel Hempstead. Do you see that there?
5 A. Yes.
6 Q. Can you recall any other projects in which you worked on
7 a design involving ACM?
8 A. The only one really of any note would be another project
9 for Harley. However, it wasn't a full design package,
10 it was just to produce some schematics.
11 Q. Is that the Chalcots project?
12 A. It was, yes.
13 Q. So you just did some schematics?
14 A. Yes. I think their internal design team were freed at
15 that point to be able to design that one fully.
16 Q. How long were you involved in that Chalcots project,
17 doing that work?
18 A. Probably two weeks.
19 Q. Yes.
20 Prior to the Grenfell project, had you ever worked
21 on a high-rise residential building over 18 metres?
22 A. Yes.
23 Q. Had you ever worked on a high-rise residential
24 overcladding project involving ACM?
25 A. No.

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1 Q. You explain in paragraph 9 of your statement that you
2 came to know Daniel Anketell-Jones during the time that
3 you worked under your trading name, Bespoke Design.
4 A. Yes.
5 Q. You say you started to employ him as a designer, and you
6 employed him for around three years; is that correct?
7 A. That sounds right, yes.
8 Q. In what role were you employing him as a designer for
9 you?
10 A. I think he started off as a technician, and very quickly
11 was promoted to project designer.
12 Q. Was that as a project designer in structural matters?
13 A. No, no. He'd only just come out of university, so he
14 wasn't qualified in structural matters.
15 Q. Right.
16 A. We were purely a design resource, draughting resource.
17 Q. I see. So implementing other people's designs --
18 A. That's correct.
19 Q. -- in practice --
20 A. Exactly, yes.
21 Q. -- and draughting those.
22 Was it your relationship with Daniel, as far as you
23 know, that led to you being contacted for the
24 Grenfell Tower project?
25 A. It would have had a factor I'm sure, although I had

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1 worked for Harley previously.
 2 Q. Yes. And that was on the Chalcots project?
 3 A. That's correct.
 4 Q. Any other projects you'd worked for Harley?
 5 A. No, that was the only one I'd done beforehand.
 6 Q. Yes. I think you say that, in fairness, at paragraph 12
 7 of your witness statement {HAR00010419/3}, that you'd
 8 worked for Harley on one other project. If we go down
 9 to paragraph 12:
 10 "Prior to this I had provided a design service for
 11 the company on one other project, albeit limited to
 12 producing design details for a project proposal."
 13 So is that the schematics at Chalcots?
 14 A. That's right, yes.
 15 Q. And you say also in paragraph 12 -- sorry, no, you've
 16 clarified what that was.
 17 So just to be clear, you weren't actually doing the
 18 project design work yourself on the Chalcots project?
 19 A. Not the full design, no. I only did the preliminary
 20 schematic drawings that I believe Ray took to a meeting
 21 to propose what they were intending.
 22 Q. Yes.
 23 Can you help us as to what kind of features you
 24 would expect to see on those preliminary schematic
 25 drawings?

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1 A. They were aesthetics. So it was a couple of pictures of
 2 windows and cladding interface through to the windows.
 3 Q. Yes.
 4 Was your first experience of substantive façade
 5 design work for Harley on the Grenfell Tower
 6 refurbishment project?
 7 A. As far as overcladding was concerned, yes.
 8 Q. Were you at the time you worked on Grenfell a member of
 9 any specialist cladding industry bodies or associations?
 10 A. No, no.
 11 Q. So not the CWCT?
 12 A. No, that's more applicable to organisations than
 13 individuals.
 14 Q. Yes. Have you since become a member of any
 15 specialist --
 16 A. No.
 17 Q. -- industry bodies?
 18 Prior to the Grenfell project, had you undertaken
 19 any formal training on the Building Regulations and the
 20 associated guidance in the approved documents, including
 21 Approved Document B?
 22 A. No.
 23 Q. During the project, did Harley provide you with any
 24 training, formal or informal, on the Building
 25 Regulations and associated guidance?

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1 A. No.
 2 Q. Did you get any formal or informal training through
 3 Harley to keep up to date with industry codes of
 4 practice for the design and installation of cladding and
 5 windows?
 6 A. No.
 7 Q. In terms of your awareness of previous cladding fires at
 8 the time you worked on the Grenfell project, were you
 9 aware of any previous fires involving external cladding
 10 façades on high-rise residential buildings?
 11 A. None at all.
 12 Q. None at all?
 13 A. No, no.
 14 Q. So you hadn't heard, for example, of the Lakanal House
 15 fire in Southwark in 2009?
 16 A. No.
 17 Q. Or any fires before that in Liverpool or Scotland?
 18 A. No.
 19 Q. Or any fires abroad in, say, Dubai, a spate of high-rise
 20 buildings in the UAE in 2012 and 2013 --
 21 A. No.
 22 Q. -- including some in Dubai?
 23 A. No.
 24 Q. No, you weren't aware of any of those.
 25 While you were working on the Grenfell project,

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1 did you become aware of any --
 2 A. No.
 3 Q. -- cladding fires?
 4 So does it follow that you weren't aware that there
 5 had been external cladding fires involving cladding with
 6 a PE, polyethylene, core at the time you worked on the
 7 project?
 8 A. No.
 9 Q. Can we look at paragraph 11 of your witness statement
 10 back on page 2 {HAR00010419/2}. So this is with the
 11 heading "Email Material". You say here:
 12 "At Harley Curtain Wall Limited and later Harley
 13 Façades Limited ... I used a Harley email address whilst
 14 working on the Grenfell Tower refurbishment project.
 15 Prior to my appointment as the project designer and in
 16 the immediate days afterwards as well as on a few other
 17 occasions, I also used my Bespoke Design email address
 18 to correspond with those at Harley and others such as
 19 Rydon and Studio E."
 20 Then you say within your statement you've exhibited
 21 some of that correspondence.
 22 A. Yes.
 23 Q. Is it right that your laptop which you worked on during
 24 the project became corrupted subsequently?
 25 A. That's correct, yes.

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1 Q. Can you tell us what happened to it and when?
 2 A. Yes. I can't remember the actual date, but it was
 3 Christmas time, when Windows 10 was on offer as a free
 4 upgrade. As with many other people, after entering into
 5 the simple upgrade, it corrupted my machine.
 6 Q. Right.
 7 Did that laptop store the emails that you sent and
 8 received on the project which are referred to in
 9 paragraph 11 of your statement?
 10 A. It did, yes. Yes. However, a lot of my emails were --
 11 specific emails would be printed out and kept on file.
 12 Q. I see.
 13 A. Which are the exhibits that are my --
 14 Q. Yes. Have any emails do you think been lost as a result
 15 of your laptop becoming corrupted?
 16 A. I would be amazed if there's anything of any relevance.
 17 Q. I see. Okay. So you've been able to retrieve, have
 18 you, emails relating to your Bespoke Design email
 19 address as well as those relating to your Harley email
 20 address?
 21 A. There was a period that I've lost, but at this stage in
 22 the Grenfell project I'd probably only used it a few
 23 times, because very quickly Harley provided me with
 24 their own email.
 25 Q. I see. So it might have been, what, emails that you

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1 exchanged with individuals at the beginning of your
 2 involvement on the Grenfell project?
 3 A. Very much so, yes. Oh, definitely.
 4 Q. So, what, in August 2014?
 5 A. Yes.
 6 Q. What would you think the period would be of emails that
 7 you might have lost?
 8 A. It would be easy to see -- as soon as I was given the
 9 Harley Curtain Wall email address, I would have stopped
 10 using my own.
 11 Q. Right, yes.
 12 A. So we could easily refer back to the earliest of my
 13 emails.
 14 Q. Have you tried to take steps to recover the emails that
 15 were lost?
 16 A. No, because I didn't feel there was any need.
 17 Q. Now I want to turn to how you became involved in the
 18 Grenfell project and look at that in more detail.
 19 At paragraph 12 of your witness statement on page 3
 20 {HAR00010419/3}, you describe that you were approached
 21 by Daniel Anketell-Jones, who was working as a design
 22 manager at Harley Curtain Wall, about providing a design
 23 service for Harley. Do you see that there?
 24 A. That's right, yes.
 25 Q. Did you know at the time why you were being approached?

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1 Was that explained to you?
 2 A. It wasn't explained but, as with all of my approaches,
 3 they're generally because there's a shortage in their
 4 own resource pool.
 5 Q. Did you become aware subsequently that that was why
 6 you'd been approached? Was that explained to you?
 7 A. It wasn't explained to me, but I -- it was immaterial.
 8 Q. Okay.
 9 Then in the next paragraph, at 13, you say:
 10 "I attended a meeting with Ray Bailey (the director
 11 of Harley) and Daniel Anketell-Jones on
 12 12th August 2014."
 13 Then you say:
 14 "In advance of that meeting ..."
 15 And you list out there a number of things that you
 16 were sent, including the contract programme, a 3D
 17 computer model, some CAD models, and you explain some of
 18 what that contained. Do you see that there?
 19 A. Yes, yes.
 20 Q. And you've exhibited some of the drawings that you were
 21 sent to your witness statement.
 22 Can we just have a little look. So at exhibit KL/2
 23 that you refer to in that paragraph, we see that there
 24 were sketches from another Harley project called
 25 Ferrier Point. If we go to {HAR00010416}, I think we

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1 can see from the label at the bottom right-hand side on
 2 this drawing that it's referring to Ferrier Point. Do
 3 you see that there?
 4 A. Yes.
 5 Q. And these are Harley drawings.
 6 Did you consider these drawings when you were sent
 7 them?
 8 A. It was explained to me that this was going to be the
 9 concept design to be applied to Grenfell. This was, in
 10 Harley's terms, a proven solution.
 11 Q. I see. So they did explain to you that that's why you
 12 were being sent the details of this project?
 13 A. That's right, yes.
 14 Q. Were you aware that the type of cladding used at
 15 Ferrier Point was Reynobond ACM, the same --
 16 A. No, I was aware it was ACM but never considered the
 17 manufacturer.
 18 Q. Were you aware that it was Reynobond ACM and that was
 19 going to be the same as at Grenfell? So you say you
 20 weren't -- sorry, let me start again.
 21 You weren't aware of the manufacturer, but were you
 22 aware that the same cladding manufacturer was going to
 23 be used?
 24 A. I was told in the first meeting with Ray and Dan the
 25 materials that we'd be using.

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1 Q. Okay.
 2 A. So it wasn't specific to these drawings. That had been
 3 very clearly laid down, what I was expected to be using.
 4 Q. And what materials were you told you would be using at
 5 that first meeting?
 6 A. It would be rigid insulation, which would be
 7 a Celotex-type product, and it would be ACM, and the ACM
 8 would be hook-on cassette panels.
 9 Q. Did they actually use the words "Celotex-type product"
 10 to you?
 11 A. I don't recall, to be honest.
 12 Q. You don't recall?
 13 A. No.
 14 Q. Now, we can see further from the sketches -- I think you
 15 just referred to it in your last answer, that you were
 16 told they were hook-on cassette panels at Grenfell. We
 17 can see from these sketches at Ferrier that this was
 18 actually a face-fixed system, wasn't it, riveted to the
 19 building?
 20 A. That's right, yes.
 21 Q. Did you notice that at the time, that this was
 22 a face-fixed system?
 23 A. Oh, yes. This was given as a guide, and I was told,
 24 "Although this is face-fixed, you would be providing
 25 a design for a cassette option".

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1 Q. Did you know what that meant?
 2 A. Yes, totally.
 3 Q. Had you designed façades with the cassette-type fixings
 4 before?
 5 A. Yes.
 6 Q. But not for a high-rise residential building?
 7 A. Not with ACM. I've done it with solid aluminium.
 8 Q. Yes.
 9 We can also see that the insulation used at
 10 Ferrier Point according to this drawing was
 11 200-millimetre Rockwool Duo Slab insulation. If you
 12 look at the label -- I think we might need to blow this
 13 up --
 14 A. I can see that.
 15 Q. So just to help the panel as well, at the very bottom
 16 left-hand side of this drawing, if we can blow it up,
 17 there is a small label that says there "Rockwool Duo
 18 [Glass] rigid insulation", do you see that there?
 19 SIR MARTIN MOORE-BICK: Duo Slab, isn't it?
 20 A. Duo Slab.
 21 MS GRANGE: Sorry, "Duo Slab rigid insulation".
 22 Were you aware of that when you were sent this, that
 23 this was a mineral wool insulation that had been used at
 24 Ferrier Point?
 25 A. I was, and I was aware that a mineral wool wouldn't be

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1 used at Grenfell because there wasn't enough zone to
 2 provide thermal values.
 3 Q. Who told you that?
 4 A. It was at the very first meeting with Dan and Ray.
 5 I don't recall at that particular point who was talking.
 6 Q. So not enough zone, does that mean --
 7 A. On this particular job there's a 315-millimetre zone
 8 which means you can easily get 200 millimetres of
 9 insulation.
 10 Q. Yes.
 11 A. I don't recall the exact zone on Grenfell, but it wasn't
 12 deep enough to get the correct amount of insulation.
 13 Q. So that's the distance between the original concrete and
 14 the rainscreen panel --
 15 A. That's correct.
 16 Q. -- wasn't deep enough, you were told, to put mineral
 17 wool insulation in there?
 18 A. No, I was told to put a Celotex-type rigid slab.
 19 Q. Yes. And was that something you ever had a discussion
 20 with them about, or was the position that you were
 21 simply told that?
 22 A. No, I was told the materials that they'd selected.
 23 Q. Yes.
 24 Had you used mineral wool yourself on previous
 25 projects involving rainscreen cladding systems?

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1 A. Yes.
 2 Q. Had you used any Celotex products previously when
 3 designing rainscreen cladding systems or working on the
 4 draughting of the drawings?
 5 A. I've used Celotex-type products in the past, but not on
 6 rainscreen, no.
 7 Q. So did you note that this was going to be the first time
 8 you'd used that product?
 9 A. When you say "note", I mean, I was aware.
 10 Q. Yes.
 11 A. But because I wasn't doing cladding on a day-to-day
 12 basis, it was no surprise, because it was a few years
 13 since I'd done cladding, and I think that the Celotex
 14 was a relatively new product anyway.
 15 Q. Yes. When you say, "it was a few years since I'd done
 16 cladding", what's your estimate as to how long it had
 17 been prior to the Grenfell project that you'd worked on
 18 a cladding project?
 19 A. I would think it was probably Chalcots, six years prior
 20 to this, yes.
 21 Q. Now, at paragraph 14 of your statement {HAR00010419/3},
 22 if we go back to your statement, you describe the
 23 meeting that you had on 12 August with Ray Bailey and
 24 Daniel Anketell-Jones. You say this at the beginning:
 25 "At the meeting, we discussed the project and the

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1 scope of works. I was told that the design was going to
 2 be a hook on, cassette configuration (rather than face
 3 fixed) and that aluminium composite material ...
 4 cladding was going to be used. I also remember
 5 discussing the specially extruded aluminium profiles
 6 which were going to be used ..."
 7 You say that there.
 8 So you don't mention the insulation there, but is it
 9 your evidence that you were told at this meeting that it
 10 would be a rigid insulation --
 11 A. Yes, yes.
 12 Q. -- that would be used?
 13 A. Definitely, yes.
 14 Q. I think you said you can't remember whether you were
 15 told it was Celotex at this point?
 16 A. No, I don't recall if it was Celotex, but it was always
 17 going to be a rigid insulation, a PIR-type material, but
 18 the thermal calculations had to be provided to come up
 19 with the thickness, so ...
 20 Q. Yes. You've referred there to a PIR-type material. Can
 21 you help us as to what you mean by that?
 22 A. It's a rigid insulation slab rather than a mineral.
 23 Q. Did you know PIR to mean polyisocyanurate?
 24 A. Never gave it a second thought, to be honest.
 25 Q. Yes.

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1 Can you help us as to whether anything else was
 2 discussed at that initial meeting? Was anything else
 3 discussed?
 4 A. As far as the specification of the project? I mean, we
 5 discussed --
 6 Q. Just in terms of your role on the project and what you
 7 were being asked to do.
 8 A. I was being asked to provide the drawings under the
 9 technical team from Harley. Obviously I was given
 10 a programme, an indicated programme, for which I had to
 11 confirm I could work to.
 12 Q. And who did you understand to be the technical team at
 13 Harley?
 14 A. Well, it varied over the period, but at that stage it
 15 was primarily Dan --
 16 Q. Yes.
 17 A. -- and Ray. I think there was recourse to Mark Stapley
 18 if necessary, but they were the two frontrunners as far
 19 as I was concerned at that point.
 20 Q. Was this meeting, on your understanding of it,
 21 an interview for Harley to decide whether you would be
 22 engaged to work on the project, or was it effectively
 23 your appointment was a done deal and this was your
 24 introduction to the project?
 25 A. That's correct. It was a done deal. I mean, when

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1 I spoke to Dan previously on the phone, it was a case
 2 of: do I have the capacity to do this particular job,
 3 it's going to require a certain amount of hours, and
 4 I said, "Yes, I'm sure I could deal with that".
 5 Q. Yes.
 6 Do you recall whether any questions were asked in
 7 relation to your experience or your abilities in
 8 relation to high-rise façade design?
 9 A. Definitely not.
 10 Q. Were any questions asked about your experience in terms
 11 of cladding design as distinct from windows or curtain
 12 walling?
 13 A. No.
 14 Q. Were any questions asked about your qualifications or
 15 experience?
 16 A. No.
 17 Q. Can you just help us as to what you came away with from
 18 that meeting in terms of what the extent of your role
 19 would be?
 20 A. My role would be to act as a draughting service to
 21 transfer the architect's drawings into fabrication
 22 drawings which are dimensionally accurate and could be
 23 transferred as product drawings so the whole thing could
 24 be manufactured and installed.
 25 Q. Did you understand you were going to be the project

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1 designer?
 2 A. I think the -- you don't want to read too much into that
 3 term.
 4 Q. Why?
 5 A. I think there's a general consensus that once you put
 6 the word "designer" in there, there is an element of
 7 responsibility far more than maybe there should be.
 8 Q. Were you being referred to at the time as the project
 9 designer or the lead designer?
 10 A. I was never told I was the lead designer. I was told
 11 I was a project designer. The first I knew of that was
 12 when they had some business cards printed up with my
 13 name on, but that didn't stop me from being quite clear
 14 that I was working through their technical team.
 15 Q. What was said to you about the extent of supervision you
 16 would be getting on the project?
 17 A. I don't think anything was specifically said. I was
 18 told that everything would go through Dan, but as
 19 a remote source, I wouldn't see, really, what that
 20 process would be. I can only assume when I sent
 21 drawings to Dan he would discuss them with Ray, and then
 22 the comments that I got back would be acted upon.
 23 Q. Did you understand that you had to send your drawings to
 24 somebody at Harley for some kind of checking process to
 25 occur?

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1 A. Yes, all of my drawings would go through the Harley
2 team, yes.
3 Q. And what did you understand they were doing to them when
4 you sent them?
5 A. They would review key drawings for concept.
6 Q. For concept? What does that mean?
7 A. Compliance with their instructions to me. I was very
8 much designing for Harley as a direct client rather than
9 designing for anyone else.
10 Q. And was it your understanding that they would be
11 checking those drawings for compliance with relevant
12 regulatory requirements, such as compliance with the
13 Building Regulations or other associated guidance?
14 A. Yeah, I would expect an overview from them, but
15 ultimately, in my history, the responsibility for
16 compliance would always fall down to the architect,
17 which was the main reason for him checking off all of
18 the drawings.
19 Q. We're going to come back to this topic in a minute
20 because it's a key topic, but I just want to ask you one
21 further question on that at this stage.
22 Where did that understanding come from on the
23 Grenfell project? Were you ever told, "By the way, the
24 person checking compliance on this project is the
25 architect, we at Harley won't be checking for regulatory

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1 compliance?"
2 A. No, I was never told that.
3 Q. So that was an assumption you made on the project, was
4 it?
5 A. Yeah, based on 30 years of never doing it a different
6 way.
7 Q. I see.
8 Were you asked whether you would be comfortable
9 working on a large-scale high-rise façade project
10 without direct supervision?
11 A. I was never -- it was never implied I wouldn't have any
12 direct supervision.
13 Q. Right. So you assumed you would be supervised --
14 A. Definitely, yes.
15 Q. -- during the project?
16 A. Yes, you wouldn't expect a client to employ
17 a third-party design source and then just let them get
18 on with it. That would be very dangerous to a --
19 Q. So that was not your understanding of what was going to
20 happen?
21 A. No, not at all.
22 Q. Did you understand in practice that you were being
23 supervised during the project?
24 A. Yes, yes.
25 Q. By who?

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1 A. Some of it was by Ray, some of it was by Dan.
2 Q. I see.
3 Were you given any information about Harley's
4 contractual responsibilities or their scope of work and
5 how you were being expected to help fulfil that?
6 A. I wasn't told about contractual responsibilities, but
7 the scope of work was very clearly laid out from Ray in
8 the first place, Ray and Dan, in that very first
9 meeting.
10 Q. And tell me about that scope of work. Where did
11 Harley's work begin and end?
12 A. Well, it was quite clear -- they issued me with a copy
13 of their quotation, and on that quotation there was
14 a small 3D model, and it really identifies the whole
15 scope of what they'd priced for. So every element on
16 that quotation had to be drawn.
17 Q. Did you understand that it was a quote for the entire
18 façade works to Grenfell?
19 A. That's right, yes.
20 Q. Now, I just want to turn to paragraph 79 of your witness
21 statement, this is {HAR00010419/18}, and I want to look
22 at the bottom of page 18 and on to the top of 19. So
23 you say this there:
24 "Although I was not aware of the exact wording of
25 the contract agreed between Rydon and Harley, I would

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1 assume it was to provide a complete façade envelope,
2 consisting of replacement windows, improved insulation
3 and decorative over-cladding as specified and designed
4 by the architects. I assume it also included managing
5 the operation and work teams to ensure works were
6 completed in a timely fashion ..."
7 Do you see that there?
8 A. Yes.
9 Q. Then if we go over the page {HAR00010419/19}:
10 "... with minimal disruption to the residents,
11 always with a view to conforming to Health and Safety
12 standards and good working practices."
13 Do you see that there?
14 A. Yes, I agree with that.
15 Q. Was that your assumption about the contractual position?
16 You've said, "I would assume it was to provide
17 a complete façade envelope".
18 A. Yes, yes, it was my assumption. I was never led to
19 believe anything else.
20 Q. Did you understand that that would include cavity
21 barriers in the façade?
22 A. Yes, yes.
23 Q. Were you ever given an opportunity to read any of the
24 contractual documents? We know now that there was
25 a letter of intent and appendices appointing Harley as

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1 the façade subcontractor. Did you ever see any of that
 2 information?
 3 A. No, that sort of information would not be divulged to
 4 myself.
 5 Q. What was your understanding of Studio E's role insofar
 6 as it applied to Harley's work?
 7 A. It was their responsibility to check all the drawings
 8 produced to suit their design intent and for full
 9 compliance.
 10 Q. Now, you've just used the words "design intent". Can
 11 you explain what you understood at the time checking for
 12 design intent would involve?
 13 A. Well, what they intend the design to look like and how
 14 it was to perform, which obviously would include full
 15 conformance.
 16 Q. What do you mean by full conformance?
 17 A. With Building Regulations and the other standards that
 18 are applicable.
 19 Q. So just to be absolutely clear, your understanding was
 20 that the architect would be checking for design intent
 21 and full compliance with all regulatory requirements,
 22 including the Building Regulations?
 23 A. Definitely.
 24 Q. And, again, was that an assumption that you made based
 25 on past practice?

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1 A. Yes, yes.
 2 Q. Did you ever have any conversations with anybody within
 3 Harley or at Studio E about what Studio E were doing in
 4 terms of their role on the Grenfell project?
 5 A. No. It would have become obvious if we'd had drawings
 6 returned to us without comments. I'm sure the
 7 architects, if they felt it wasn't their role, they
 8 would have made quite clear, rather than just kept
 9 commenting.
 10 Q. I see. So at no stage did you get the impression that
 11 they weren't checking for statutory compliance?
 12 A. Not at all. Not at all.
 13 Q. Did you ever become positively aware that they were
 14 checking for that? Did anything ever stand out and --
 15 A. When they -- I mean, they were certainly involved in
 16 discussions about cavity barriers. If they weren't
 17 checking for compliance, they would -- I'm sure they
 18 would take a step back.
 19 Q. Now, you said in that paragraph that Harley was to
 20 provide the complete façade envelope as specified and
 21 designed by the architects.
 22 A. That's right.
 23 Q. Can you help us as to what you mean by that, "as
 24 specified and designed"?
 25 A. Well, the architects have provided the design, which is

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1 apparent on their drawings issued, and the specification
 2 is the NBS specification that was supplied.
 3 Q. But in practice -- we know this was a design and build
 4 contract; did you know that at the time, that it was
 5 design and build?
 6 A. It never crossed my mind, to be honest.
 7 Q. Well, forget the design and build, but in practice,
 8 wouldn't it depend at what stage the design was handed
 9 over by the architect to the cladding subcontractor?
 10 A. Potentially, yes.
 11 Q. Might you have a situation where all the architect has
 12 done is look at very general concept design and
 13 aesthetics, and it's gone over to a cladding
 14 subcontractor at quite an early stage in the design
 15 process, leaving the subcontractor to do the detailed
 16 design work?
 17 A. Well, firstly, the architect's drawings were very
 18 detailed and the specification was very detailed, and my
 19 client, Harley, instructed me to carry on with the
 20 drawings based on their documentation.
 21 Q. Yes.
 22 Did you note that at the time, that you felt that
 23 the architect's drawings were very detailed and the
 24 specification was very detailed?
 25 A. Yes, yes.

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1 SIR MARTIN MOORE-BICK: Can I just check, what I understand
 2 you to be saying, Mr Lamb, is that on this job, at
 3 least, your function was not to develop the design --
 4 A. No.
 5 SIR MARTIN MOORE-BICK: -- simply to translate the
 6 architect's concepts as shown on the drawings --
 7 A. That's right.
 8 SIR MARTIN MOORE-BICK: -- into drawings that could be used
 9 for fabrication and construction?
 10 A. Exactly, yes.
 11 SIR MARTIN MOORE-BICK: Okay.
 12 MS GRANGE: Just breaking that down a bit, would you accept
 13 that not all the products to be used in the external
 14 wall had been specified by the architects?
 15 A. There may have been a couple. I don't know what
 16 specifically. I mean, my guidance was from Harley.
 17 Q. Yes. Well, we'll come to look at some examples of that
 18 in due course.
 19 A. Okay.
 20 Q. But also, would you accept that there was still some
 21 design work to be done on the façade, for example in
 22 relation to cavity barriers?
 23 A. I understood the drawings as offered were fully --
 24 a full representation of what they required.
 25 Q. I see. So you took those as the complete article,

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1 did you?

2 A. That's right. They were issued as construction issue

3 drawings, and when they're issued as that status, then

4 we would expect to -- expect no further redraws by the

5 architect.

6 Q. When you say they were issued as construction issue

7 drawings --

8 A. Yes.

9 Q. -- what do you mean by that?

10 A. Well, the architect in the early stages of a project,

11 they may have tender issue drawings.

12 Q. Yes.

13 A. Now, they would be issued to subcontractors or builders

14 to offer prices.

15 Q. Yes.

16 A. But before full design starts, the architect would raise

17 those to construction issue to say, "Look, this is

18 exactly what we want", and then you would base your

19 drawings on their final drawings.

20 Q. I see. So are you drawing a distinction between the

21 drawings, for example, that Studio E did as part of the

22 employer's requirements with the NBS specification,

23 which formed part of the tender --

24 A. If they were marked up as tender -- on the bottom of the

25 drawing, generally they will be marked as tender or

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1 construction issue.

2 Q. And here, when you're referring to architect's

3 construction issue drawings, are you talking about

4 drawings issued after, for example, Mr Crawford has

5 commented on your drawings?

6 A. No, no. Most of his drawings should have been complete

7 before I was even brought on board.

8 Q. Complete for construction issue?

9 A. That's correct, yes.

10 Q. Doesn't construction issue mean that they can be sent

11 and actioned on site and products ordered, et cetera?

12 A. No, there's two directions here. Harley's drawings have

13 to go -- Harley's drawings are based upon the

14 architect's construction drawings.

15 Q. Right.

16 A. So they're issued to the architect as approval, he will

17 make his comments upon those until they get to

18 a construction status. Now, one would assume that he's

19 done the same process with his client, being the KCTMO

20 or the builder or whatever.

21 Q. Again, is that an assumption that you made or do you

22 actually know that's what happened on the Grenfell

23 project?

24 A. I don't know what happened on the Grenfell project. All

25 I do know is that you would generally treat any drawings

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1 from an architect which are marked for tender, you would

2 treat those suspiciously, because they may not portray

3 the exact requirements from the architect.

4 Q. I see, okay. Well, we're going to come back and look at

5 some specific drawings later which I think might help

6 flesh out what your understanding was of different

7 drawings by Studio E and Harley at different stages.

8 A. Yes.

9 Q. Were you informed at this first meeting with Daniel

10 Anketell-Jones and Ray Bailey, or indeed at any other

11 stage in your work on the Grenfell project, that

12 Harley's work needed to comply with a Curtins structural

13 performance specification?

14 A. No, I don't recall that, no.

15 Q. Can we just pull up that document. That's

16 {ART00000914}. So this is a structural performance

17 specification done by Curtins Consulting for Studio E on

18 1 March 2013.

19 Did you ever see that document on the project?

20 A. I may well have done, but I don't recall referring to

21 it.

22 Q. If we look within the document at page 11

23 {ART00000914/11}, paragraph 7.1.13, this is where the

24 overcladding is addressed, and it says in that

25 paragraph, 7.1.13:

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1 "The system should comply fully with the

2 recommendations of the BRE document 'Fire Performance of

3 External Thermal Insulation for Walls of Multi Storey

4 Buildings', second edition, 2003."

5 Do you see that there?

6 A. Yes, I do.

7 Q. Were you familiar with that guidance?

8 A. No.

9 Q. So you didn't know that that guidance is otherwise known

10 as BR 135?

11 A. I didn't, but I was aware of BR 135.

12 Q. I see. So you were aware of BR 135 at the time of the

13 Grenfell project?

14 A. Yes.

15 Q. Okay. We'll come back to that shortly.

16 Now, paragraph 95 of your witness statement, if we

17 go back to that on page 22 {HAR00010419/22}, you state

18 in the middle of line 1:

19 "As I have explained above, the architects reviewed

20 Harley's drawings and as part of that process I would

21 expect any non-compliance with the Building Regulations

22 and in particular parts related to fire safety to be

23 picked up and flagged."

24 Do you see that there?

25 A. Yes.

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1 Q. And:
 2 "I assumed that Studio E had the benefit of
 3 specialist advice from, amongst others, fire
 4 specialists."
 5 Do you see that there?
 6 A. Yes.
 7 Q. And that expectation, again, can you explain where that
 8 came from? Was that something that you were told on the
 9 Grenfell project or just an assumption you made?
 10 A. No, no, I was -- it was an assumption based on normal
 11 working practice.
 12 Q. Did you ever make any enquiries to ascertain whether
 13 Studio E had in fact engaged fire specialists?
 14 A. No, no, I didn't, but it became apparent during the
 15 course of the project that they had.
 16 Q. Yes.
 17 Did you understand that Harley and those working for
 18 Harley, including yourself, had to independently check
 19 whether the drawings you were provided with were
 20 compliant with the Building Regulations, including parts
 21 relevant to fire safety?
 22 A. No.
 23 Q. Was it your understanding that other parties were
 24 relying on Harley, as the specialist subcontractor,
 25 being aware of those statutory requirements?

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1 A. Not having seen the contract, no.
 2 Q. When you say having seen the contract, what do you mean
 3 by that?
 4 A. Well, you mentioned the contract earlier that Harleys
 5 received from Rydons, which implies that they should
 6 have been doing that.
 7 Q. Implies that Harley should have been doing that?
 8 A. Yes.
 9 Q. Yes.
 10 A. But I was not aware of that because I didn't see that
 11 documentation.
 12 Q. At the time, does that mean that you didn't think it was
 13 any part of your role to be checking whether or not the
 14 designs were compliant with the statutory requirements,
 15 including the Building Regulations?
 16 A. I would certainly consider anything that seemed out of
 17 the ordinary, just as a matter of diligence.
 18 Q. Yes. So it was only if something stuck out and looked
 19 odd --
 20 A. Yes.
 21 Q. -- that you would check it?
 22 A. That's correct, yes.
 23 Q. Otherwise, would you make an assumption that it was
 24 compliant with relevant requirements?
 25 A. That's right, or I may discuss it with the technical

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1 team at Harley.
 2 Q. Now, let's look at your scope of works and your quote
 3 that you put in. This is {HAR00010415}. So this is
 4 a document which you prepared; is that right?
 5 A. That's correct, yes.
 6 Q. "Bespoke Design" at the top. It goes to Harley for the
 7 attention of Dan Anketell-Jones, we can see that on the
 8 left-hand side.
 9 A. Yes.
 10 Q. And it's dated 12 August 2014, so this is the same day
 11 that you met Ray Bailey and Dan Anketell-Jones. Is that
 12 correct?
 13 A. That's correct, yes.
 14 Q. Did you prepare this document before the meeting and
 15 take it with you or did you send this afterwards?
 16 A. This was sent afterwards.
 17 Q. And you say there in this covering part of it:
 18 "Dan,
 19 "Further to your email 07.08.14 and our meeting this
 20 morning ..."
 21 Sorry, it was clear that you've done this
 22 afterwards:
 23 "... please find below our quotation for design
 24 services to the aforementioned project."
 25 Do you see that there?

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1 A. Yes, that's right.
 2 Q. So you were quoting for design services on the project.
 3 A. Draughting, yes.
 4 Q. Draughting?
 5 A. Yes, yes.
 6 Q. When we read "design services" there, could we
 7 substitute that for "draughting services"?
 8 A. Yes, yes.
 9 Q. Now, you refer to an email of 7 August in that covering
 10 part.
 11 A. Yes.
 12 Q. I don't think we've ever seen that email. Can you
 13 recall what that said in general terms?
 14 A. That email had the documents listed where it says,
 15 "Based upon", these documents were in that email.
 16 Q. I see. So, yes, we've got a list at the bottom of what
 17 you were sent.
 18 A. Mm.
 19 Q. Turning to page 2 {HAR00010415/2} of your quotation, we
 20 see the design services. So we've got "Elements" at the
 21 top, and it's got "GA design". Is that general
 22 arrangement design?
 23 A. That's correct.
 24 Q. Then you've broken it down, and we see in the third
 25 point you've got "Cladding" there.

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1 A. Yes.
 2 Q. Do you see that there?
 3 A. Yes.
 4 Q. Does this mean that you were quoting for designing the
 5 overall composition of the cladding system --
 6 A. No.
 7 Q. -- not only the detailed fabrication drawings?
 8 A. No.
 9 Q. So in relation to the cladding, what were you quoting
 10 for? What was general arrangement design in relation to
 11 cladding? What did that involve?
 12 A. These are the translation drawings taken from the
 13 architect, translating his design into Harley drawings.
 14 Q. Just to be clear, were you ever told that the
 15 architect's drawings only took the design so far and
 16 that there was more design work that needed to be done
 17 as part of your job?
 18 A. No, no. Not at all, no.
 19 Q. Now, you say at bullet 2, then, we've got "Schedules &
 20 fabrications drawings", and we've got other items there,
 21 and that included the windows from the 4th to the 23rd
 22 floors; yes?
 23 A. That's right.
 24 Q. And the cladding.
 25 A. Mm-hm.

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1 Q. Then we can see if we go to page 3 {HAR00010415/3},
 2 under the heading "Notional task times", if we could
 3 blow that up, so you've got:
 4 •" Initial [drawing] issue 2-17 days, depending upon
 5 elements selected.
 6 •" Design freeze TBC."
 7 What does that mean?
 8 A. Sometimes there is a critical path point in a programme
 9 where all of the designs have got to be approved by the
 10 architects.
 11 Q. Right.
 12 A. I didn't put it in there. Maybe it wasn't told to me
 13 when that was.
 14 Q. And then:
 15 "Total design period approx. 41 days."
 16 We can see that there.
 17 A. Yes.
 18 Q. How did that estimate of the amount of work compare with
 19 the work you think you actually did on the project?
 20 A. I think I may have done a little bit more. I don't
 21 think it would be vastly more. But just bear in mind,
 22 the 41 days, that's not concurrent.
 23 Q. No, no.
 24 A. I might have done a couple of days here and a couple of
 25 days there, yeah.

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1 Q. Yes. But it's in the right ballpark in terms of what
 2 actually happened?
 3 A. Yes, I think so.
 4 Q. And we can see that your quote was originally
 5 £10,572.80, excluding VAT. We see that there.
 6 A. That's right, yes.
 7 Q. Now, during the time you worked on the Grenfell project,
 8 were you also working on other projects?
 9 A. Yes.
 10 Q. And in terms of your time on Grenfell, was it on
 11 an as-and-when-required basis, or were you ever told
 12 that you were required to set aside a number of days per
 13 week?
 14 A. We discussed programme, key dates and the programme, and
 15 I had to make sure that my other work didn't interfere
 16 with that, which is quite common on virtually all the
 17 jobs I do.
 18 Q. So you were aware of the general shape of the
 19 programme --
 20 A. Yes.
 21 Q. -- so that you could plan your work?
 22 A. Yes.
 23 Q. Turning to page 4 {HAR00010415/4}, if we look at that
 24 and we blow that up, this is your quotation summary and
 25 it's broken down. Then we've got this box on the right

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1 with different little headings on the side.
 2 A. Yeah.
 3 Q. And we've got "Specifications". You've quoted in your
 4 breakdown for "Specifications", do you see that there?
 5 A. Yes.
 6 Q. Does that mean you were anticipating at this stage that
 7 it was part of your role to consider the materials that
 8 had been specified?
 9 A. No, it was simply to put the details as specified on our
 10 drawing number 100.
 11 Q. But suppose the drawing from the architect didn't show
 12 a particular product specified.
 13 A. Yeah.
 14 Q. Take the window infill panels, the white window infill
 15 panels.
 16 A. Yeah.
 17 Q. Did you anticipate that it might be part of your job to
 18 select products and set out specifications for some of
 19 the external wall materials?
 20 A. I would never have been expected to specify products,
 21 but in that particular instance a product was suggested
 22 and it was discussed.
 23 Q. I see. And when you say it was suggested, you mean
 24 suggested by Harley?
 25 A. Suggested by me to Harley, to the team, yes.

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1 Q. So is it your evidence that you didn't expect to be
 2 doing it, but actually in practice you did sometimes
 3 make suggestions about materials to be used in the
 4 external wall?
 5 A. Yes, yes, in a minimal way.
 6 Q. Then at page 6 {HAR00010415/6} we've got your standard
 7 terms and conditions. I want to look at the heading
 8 "Submissions", which is at the bottom of that page. Do
 9 you see that there?
 10 A. Yes.
 11 Q. Clause IV, it says:
 12 "Modifications (not redesign) of architectural
 13 submission drawings expected up to revision B
 14 (inclusive). Further requests for updates chargeable at
 15 standard Bespoke Design hourly rate."
 16 Can you help us as to what that meant? What does
 17 "Modifications (not redesign) of architectural
 18 submission drawings expected up to revision B" --
 19 A. It's quite common to issue your first drawing and
 20 receive some comments back from the architect, so then
 21 you would revise your drawing, which would take the
 22 drawing up to status -- up to revision A, not status A
 23 but revision A.
 24 The architect may make further comments, which he
 25 shouldn't really do, but sometimes historically they do.

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1 They keep making comments upon drawings that they've
 2 already commented upon.
 3 Q. Yes.
 4 A. This is a clause to try and stop that, or else I could
 5 be revising drawings forever.
 6 Q. So you've said "expected up to revision B"; does that
 7 mean you give them one chance to have another go --
 8 A. That's right, yes.
 9 Q. -- but after that, you're not anticipating --
 10 A. No, and really this is to protect myself. Certainly in
 11 the case of Grenfell, no further costs were sent on to
 12 Harley for any of the drawings over revision B.
 13 Q. So just to be clear, this is modifications you're making
 14 in response to architect's comments --
 15 A. That's correct.
 16 Q. -- not modifications you're making to their designs?
 17 A. No.
 18 Q. Okay.
 19 Now, I don't think we need to pull this up, but you
 20 say in the final sentence of paragraph 14
 21 {HAR00010419/3} that, at that first meeting with Harley
 22 on 12 August 2014, you also discussed your attendance at
 23 a design team meeting on site at Grenfell the next day;
 24 yes?
 25 A. That's correct, yes.

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1 Q. Would it be normal for you to attend design team
 2 meetings at site the day after an initial meeting on
 3 a new project?
 4 A. Not often, but it's not unusual.
 5 Q. Did you get the impression at this stage there was time
 6 pressure to appoint a project designer on the job?
 7 A. Well, there was certainly pressure to actually move the
 8 job along. Whether they were just being expedient --
 9 when I say they, I mean Harley -- I don't know.
 10 Q. Right.
 11 Can we turn now to {RYD00015549}. So this is
 12 an email sent three days after that initial meeting you
 13 had, from Daniel Anketell-Jones to Simon Lawrence at
 14 Rydon.
 15 Were you told who the main Rydon contacts were on
 16 this job at the beginning?
 17 A. Only at the DTM one.
 18 Q. At the design team meeting?
 19 A. Yes.
 20 Q. Okay.
 21 And you're copied in, and Rob Maxwell of Harley is
 22 also copied in, and the subject is "Grenfell Tower
 23 Design". Daniel says:
 24 "Good Afternoon Simon,
 25 "Following on from the meeting on Wednesday; I would

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1 just like to confirm that Kevin will be the main
 2 designer working on Grenfell Tower."
 3 Do you see that there?
 4 A. Yes.
 5 Q. "We are keen to get on with the design as quickly as
 6 possible, and therefore will proceed with champagne
 7 cassettes as discussed.
 8 "We are going to focus on the details around the
 9 windows, which will allow us to finalise the extrusion
 10 design as quickly as possible.
 11 "If you could send over the drawings submitted for
 12 planning this would be a great help. We want to be
 13 sure, all the right specs are on the drawings to start
 14 with, and get as much signed off and agreed as we can."
 15 Do you see that there?
 16 A. Yes.
 17 Q. What do you understand him to mean when he refers to you
 18 there as the main designer?
 19 A. I would be doing the actual drawing work.
 20 Q. He doesn't say, "Kevin Lamb will be the draughtsman" or
 21 "Kevin Lamb will be the fabrication draughtsman", does
 22 he? He says "main designer".
 23 A. That's right, main designer, but it is -- he has
 24 addressed this as design manager, so one would
 25 assume ...

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1 Q. One would assume what?
 2 A. One would assume that he would be controlling the
 3 design.
 4 Q. And was that your understanding, that
 5 Daniel Anketell-Jones, as the design manager, would be
 6 controlling the design?
 7 A. Yes, if he wasn't doing it himself, he would be passing
 8 it on within the company, yes.
 9 Q. And did that understanding remain your understanding
 10 throughout the project?
 11 A. Until a later point, when he stepped sideways.
 12 Q. Yes.
 13 A. Then that passed over to a combination of Ben and
 14 Mark Stapley, but I think always Ray was in the picture.
 15 Q. Then we see in the fourth paragraph there's reference
 16 there to:
 17 "We want to be sure, all the right specs are on the
 18 drawings to start with ..."
 19 Can you just explain exactly what that meant as far
 20 as you understood it?
 21 A. Yeah, I think this is in relation to the actual
 22 champagne cassettes. I don't know, I'm making
 23 assumptions. I don't know.
 24 Q. You don't know, fine.
 25 Was it your understanding at this point that it was

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1 part of Harley's job to check the specification to date
 2 on the project and check that it was compliant with
 3 relevant requirements?
 4 A. The NBS?
 5 Q. The NBS and the drawings that had been produced as part
 6 of the spec.
 7 A. No. As I've said before, I don't believe so, no.
 8 Q. Now, at the time of the Grenfell project and after your
 9 appointment, did you understand that you had any duties
 10 under the CDM, the Construction (Design & Management)
 11 Regulations?
 12 A. Not specific. Obviously I should have a certain care
 13 that health and safety is considered.
 14 Q. Yes.
 15 A. But the lead designer should have the major concern with
 16 CDM.
 17 Q. Were you aware that, as a designer, you owed duties to
 18 your client and duties when preparing or modifying
 19 a design under CDM?
 20 A. I wasn't modifying designs.
 21 Q. So you don't think anything you were doing would fall
 22 within the definition of modifying a design?
 23 A. No.
 24 Q. Did you ever do any design risk analysis or risk
 25 assessments for the project?

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1 A. No.
 2 Q. On projects of this size and complexity, in your
 3 experience, would it be normal to have a matrix of
 4 responsibilities setting out which contractor or
 5 subcontractor was responsible for each element of the
 6 design?
 7 A. I'd not come across that before, to be honest, no.
 8 Q. So that was not something you thought about on the
 9 Grenfell project?
 10 A. No.
 11 Q. In respect of the design drawings that you produced --
 12 so you say you took the architect's drawings and you
 13 converted them into drawings that could then be used for
 14 fabrication --
 15 A. That's right.
 16 Q. -- what quality control mechanisms did you understand
 17 Harley to have in place to check those drawings?
 18 A. To check them for what?
 19 Q. Well, for example, for statutory compliance or
 20 compliance with the Building Regulations.
 21 A. I don't know what they had in place, but I wouldn't have
 22 expected them to be checking for compliance anyway.
 23 Q. Because? Why not?
 24 A. I think that was the architect's role. I mean, they
 25 would certainly have an overview if they felt there was

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1 a glaring non-compliance, but I don't think that was
 2 their ultimate role.
 3 Q. In terms of quality control more generally, leave aside
 4 compliance for the moment, were you aware that there was
 5 any quality control mechanisms in place in terms of your
 6 drawings?
 7 A. All of my drawings were submitted to the team. I mean,
 8 to get the process correct, in the early stages, I used
 9 to attend the office maybe once a week, once
 10 a fortnight, spend a day in the office. Part of that
 11 day would be spent with Ray and/or Dan and/or
 12 Mark Stapley and we would approach key design elements,
 13 and once we'd decided around the table what was
 14 required, I would go away, produce that, and for
 15 expedience the drawings were often issued directly to
 16 Rydons, but they were always copied into Harley to have
 17 a review. So they had an opportunity to review at the
 18 same time as the architect was reviewing.
 19 Q. Now, that's the early stages.
 20 A. Yes.
 21 Q. It sounds like you might have been drawing a distinction
 22 there between what happened in the early stages and what
 23 happened in later stages of the project.
 24 A. Well, as you go on in a project, a lot of the drawing
 25 work is just dealing with architectural comments.

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1 Q. Yes.
 2 A. Concepts are generally dealt with in the early stages.
 3 Q. Does that mean as you went on in the design process that
 4 you didn't have the same opportunities to sit down with
 5 Ray and Dan or Mark --
 6 A. I had the same opportunities, but we tended to -- as
 7 time went on, it was only certain key items that
 8 provoked a round-the-table discussion.
 9 Q. Right.
 10 Now, I think you deal with this at paragraph 32 of
 11 your statement, if we go to that, it's on page 8
 12 {HAR00010419/8} of your statement. So you're saying
 13 there, if we blow up 32:
 14 "At the beginning of the project I tended to go into
 15 the Harley offices around once a week and attend
 16 meetings (on site or in the office) as and when was
 17 required. Towards the end of the project I went in less
 18 frequently subject to any issues arising. In the
 19 infancy of the design, I would meet with Ray Bailey
 20 and/or Daniel Anketell-Jones and talk about the design
 21 and how to set things out. Ray Bailey would tend to
 22 provide 'conceptual' input (for example, suggesting the
 23 extruded special profiles to make the installation
 24 easier) and Daniel Anketell-Jones would give more
 25 technical, structural and engineering input, such as the

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1 fixings and thermal values."
 2 Do you see that there?
 3 A. Yes, I would agree with that.
 4 Q. Then you say {HAR00010419/9}:
 5 "My usual practice following discussions at Harley
 6 was to send drawings to Rydon and Studio E and copy in
 7 someone from the internal Harley team. Both Ray Bailey
 8 and Daniel Anketell-Jones were more actively involved at
 9 the beginning of the design process (including for the
 10 first few revisions of each drawing). Later on, if
 11 there was a significant change, or an issue came up,
 12 I would speak to Ray Bailey about this. In particular,
 13 I recall Daniel Anketell-Jones becoming less involved
 14 quite early on in the job, as he was working on other
 15 Harley projects."
 16 Do you see that there?
 17 A. Correct, yes.
 18 Q. Now, if we just go back a page {HAR00010419/8} to look
 19 at the bottom of that page again, you say there that:
 20 "Ray Bailey would tend to provide 'conceptual'
 21 input ..."
 22 Can you just help us? You've said "for example,
 23 suggesting the extruded special profiles to make the
 24 installation easier". Can you help us in more layman's
 25 terms as to what that might mean?

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1 A. Well, fortunately he did a very good job on the flip
 2 board when he was giving his evidence of the extruded
 3 angles. There's aluminium angles --
 4 Q. I see, around the windows.
 5 A. Yes, top and bottom of the window openings, and although
 6 you could have something very simple, he took it to
 7 a further degree to make it a multi-purpose product.
 8 Q. Right, okay.
 9 Then you say:
 10 "... Daniel Anketell-Jones would give more
 11 technical, structural and engineering input, such as the
 12 fixings and thermal values."
 13 Did you understand that Daniel's role there was
 14 limited to just structural matters?
 15 A. I don't believe so, no.
 16 Q. If you'd had to describe what his role was in terms of
 17 inputting into the work that you were doing, how
 18 would you describe it?
 19 A. Sorry, can you say that again?
 20 Q. How would you describe -- you've said here "more
 21 technical, structural and engineering input, such as the
 22 fixings and thermal values", are those the best examples
 23 you can give of how he was inputting into the design?
 24 A. Yes, yes, really.
 25 Q. Can you think of any other aspects that he inputted

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1 into?
 2 A. Not off the top of my head, to be honest, no.
 3 Q. What about fire performance? Did you understand that
 4 there was anybody within Harley who was helping with any
 5 fire aspects of the design?
 6 A. I don't think there were specific requirements for fire
 7 protection other than meeting the requirements for
 8 providing cavity barriers.
 9 Q. So just to be clear, is your understanding of the
 10 regulatory regime at the time that the only thing you
 11 needed to think about in terms of fire was cavity
 12 barriers?
 13 A. Not the only thing, but the major thing, I think, yes.
 14 Q. What else were you aware of that you ought to be
 15 thinking of in terms of fire performance and the façade?
 16 A. Well, materials obviously.
 17 Q. Yes.
 18 A. But none of that concerned me. It was all issued to me
 19 as a fait accompli, "This is what we're doing".
 20 Q. And if you'd had a query about fire performance on the
 21 job, who would you have understood that you should talk
 22 to within Harley to help you with that?
 23 A. I would approach the team at one of these
 24 round-the-table talks. If there was no one -- if there
 25 wasn't a pool of people, I think I would have approached

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1 Ray.
2 Q. So you say the team at one of these talks. The team
3 would be Ray Bailey and Dan Anketell-Jones; is that
4 right?
5 A. It would depend. Sometimes Dan was there, sometimes
6 Mark Stapley was there.
7 Q. Yes.
8 A. Sometimes Ben was there.
9 Q. Okay. So you would have seen Ben as part of that team,
10 would you, that you could talk to?
11 A. At a much later stage, yes.
12 MS GRANGE: Yes.
13 Mr Chairman, I think that might be -- I'm partway
14 through this topic, but I think that might be a good
15 moment.
16 SIR MARTIN MOORE-BICK: Probably a good idea to stop at that
17 point.
18 MS GRANGE: Yes.
19 SIR MARTIN MOORE-BICK: Well, Mr Lamb, it's time we all had
20 a break for lunch, I think, so we're going to stop now.
21 We'll resume at 2 o'clock, please.
22 I must ask you not to talk to anyone about your
23 evidence or anything relating to it while you're out of
24 the room.
25 THE WITNESS: I understand that, yes.

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1 SIR MARTIN MOORE-BICK: Thank you very much. If you go with
2 the usher then, she'll look after you.
3 THE WITNESS: Okay.
4 (Pause)
5 SIR MARTIN MOORE-BICK: Right, 2 o'clock, please.
6 (1.02 pm)
7 (The short adjournment)
8 (2.00 pm)
9 SIR MARTIN MOORE-BICK: Right, Mr Lamb, ready to carry on?
10 THE WITNESS: Yes, certainly am.
11 SIR MARTIN MOORE-BICK: Very good, thank you.
12 Yes, Ms Grange.
13 MS GRANGE: Thank you, Mr Lamb.
14 Just going back to that first meeting you had with
15 Ray Bailey and Daniel Anketell-Jones on 12 August 2014,
16 was there any discussion at that meeting about the fact
17 that your main experience prior to that had been in
18 glazing and curtain walling rather than in cladding?
19 Was that discussed at all?
20 A. No, there was no discussion to that point, no.
21 Q. Did you understand that they knew that, that they were
22 aware that that had been predominantly your expertise?
23 A. I don't think it was important because I was being
24 engaged as a draughting resource --
25 Q. Yes.

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1 A. -- rather than a cladding specialist.
2 Q. I see, okay.
3 Now, the topic I was exploring was quality control
4 processes internally within Harley in relation to your
5 work and the supervision of your work.
6 A. Yes.
7 Q. Certainly at the beginning, how would you describe the
8 division of responsibility between yourself and
9 Mr Anketell-Jones?
10 A. Well, as I said, we would have our round-the-table
11 concept design meetings. Following those meetings I was
12 entrusted to carry out instructions, and then, for
13 expedience, the drawings would be sent straight out to
14 the client, but they would be copied in to Dan and Ray
15 for their input should they see fit.
16 Q. Did you understand that Daniel Anketell-Jones was your
17 line manager on the project?
18 A. Yes.
19 Q. Were there ever any formal or informal design reviews
20 held internally within the Harley design team? Did you
21 ever draw a line in the sand and say, "Let's just take
22 stock, where has the design got to, where are we going,
23 what's next?" Did that ever happen on this project?
24 A. Well, as I said, the weekly or every other weekly
25 round-the-table design workshops would cover that,

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1 wouldn't they?
2 Q. When you say the weekly or other weekly design
3 workshops, do you mean these discussions with Dan and
4 Ray?
5 A. And Ray, yes, yes.
6 Q. But those weren't held later in the project, were they?
7 A. No, but by then the concept was all secured.
8 Q. I see. So there were no opportunities for design review
9 later?
10 A. There was opportunities if we felt it necessary --
11 Q. But you didn't?
12 A. But -- no.
13 Q. What about any formal or informal design reviews with
14 the wider team, with Studio E or anybody at Rydon, the
15 design team, to ensure that the design was progressing
16 correctly?
17 A. We did have a few design team meetings on site, yes.
18 Q. Yes. And that's what you thought that was,
19 an opportunity during those meetings to take stock of
20 the design with Studio E?
21 A. Yes, yes.
22 Q. If we can turn to a document {HAR00003634}, if we look
23 at the top email here, this is an email from
24 Daniel Anketell-Jones to you on 22 September 2014, and
25 he says:

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1 "Kev,
2 "Could you make one change - detail 304 - change it
3 to 2 angles in the shadow gap to allow for tolerance.
4 "These can be issued then."
5 Do you see that there?
6 A. Yes, I do.
7 Q. So it appears certainly at this stage that
8 Daniel Anketell-Jones is reviewing your drawings, making
9 comments and then approving them; is that correct?
10 A. Certainly in this particular case, yes.
11 Q. When he was doing that, certainly at the beginning of
12 the project, what did you understand he was checking
13 for?
14 A. He was checking that I was following the Harley remit.
15 Q. I see.
16 A. I was instructed by Harley to provide a particular
17 design.
18 Q. Yes.
19 A. He was checking that that was okay.
20 Q. That you were following that?
21 A. Mm.
22 Q. Did you think he was doing any wider form of checking,
23 for example checking with Building Regulations or
24 relevant guidance?
25 A. I wouldn't have expected him to be doing that. I would

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1 expect him, if he knew there was an obvious departure
2 from conformance to regulations, to bring that up, but
3 I don't think that was his primary job function, no.
4 Q. But would you have expected him to have been aware of
5 the regulatory requirements surrounding the design of
6 façades, the Building Regulations requirements and other
7 guidance?
8 A. I never considered it. The problem is we're talking
9 about what I know now.
10 Q. Yes.
11 A. At the time, I didn't have any reason to consider any of
12 that.
13 Q. No. But I think you confirmed that if there was
14 something obvious in your drawings that wasn't
15 compliant, you would have expected Mr Anketell-Jones to
16 pick that up?
17 A. Yes, as with any other member of the team that sees the
18 drawings.
19 Q. Yes. So the same would apply for Ray Bailey if he
20 reviewed one of your drawings?
21 A. Yes.
22 Q. You would have expected him to have picked up any
23 obvious non-compliances with requirements?
24 A. Yes, if it's obvious, yeah.
25 Q. Now, you say in paragraph 32 of your witness

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1 statement -- let's go to this, so {HAR00010419/9}. So
2 if we look at paragraph 32, and I want to look at the
3 fourth line down at the top of the page. We read this
4 earlier. You said:
5 "Later on, if there was a significant change or
6 an issue came up, I would speak to Ray Bailey about
7 this."
8 You say in the next sentence that you recall Daniel
9 becoming less involved quite early on in the job because
10 he was working on other projects; yes?
11 A. Yes.
12 Q. Can you help us as to how soon exactly in the project
13 did Mr Anketell-Jones become less involved, at what
14 point?
15 A. I would be guessing. It would be easy to check back on
16 emails and see when I stopped issuing emails to him and
17 favoured Mark Stapley, but I would guess in the early
18 couple of months of 2015.
19 Q. Right. And were you told at that point that another
20 design manager was supervising your work at that stage?
21 A. There was a point at which I was told no longer to send
22 the drawings through Dan, to send them through
23 Mark Stapley.
24 Q. I see. But you can't help as to exactly when you were
25 told that?

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1 A. Not without having a look through all the files, no.
2 Q. Do you think that would be on an email or were you told
3 that verbally?
4 A. Oh, no, I would have been told that verbally.
5 Q. I see.
6 Is it right that, as the project progressed, you
7 were increasingly left to issue drawings without having
8 had direct supervision?
9 A. Yes, because the level of drawings -- it was basically
10 comments from the architect that I was dealing with. So
11 the concept had already been agreed with my client,
12 being Harley, so there was no need.
13 Q. So you weren't concerned by that?
14 A. No.
15 Q. Just an example of that, if we turn to {SEA00013350}, if
16 we can blow that up, this is from you to Simon Lawrence
17 on 18 August 2015, so fairly late on in the project.
18 A. Yes.
19 Q. You're still copying Daniel Anketell-Jones in there as
20 well as Mark Stapley. We see that in the copy list.
21 A. Yes.
22 Q. So does that mean this was at a time when you did
23 understand Daniel was still having some involvement?
24 A. Yes, he must have been, so that does put the date back
25 a little bit further, doesn't it? Yeah.

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1 Q. Yes. We can see a large number of drawings here, and
 2 you actually addressed the body of your email to
 3 Neil Crawford, I think. You say:
 4 "Neil,
 5 "Please find attached curtain wall drawings all now
 6 issued for construction based upon your comments
 7 07.08.15.
 8 "The only item that has deviated ..."
 9 Do you see that there?
 10 A. Yes.
 11 Q. We're going to come in a little while to drill down and
 12 try and understand the exact process for approving
 13 drawings and whether it was Rydon approving them or
 14 Harley approving them, but at this stage I just wanted
 15 to note that you seem to be issuing a large number of
 16 drawings here to Rydon and Studio E without having run
 17 them past Harley first.
 18 A. These are revisions.
 19 Q. I see.
 20 A. You can see by the fact -- after the final three numbers
 21 there's a letter.
 22 Q. Yes.
 23 A. Revision A in most cases. So you can see they're all
 24 revisions.
 25 Q. So is the point that, given they were only revisions,

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1 they didn't need to go back internally within Harley;
 2 they could go straight out again to Rydon and Studio E?
 3 A. Directly.
 4 Q. Yes.
 5 A. Of course, they were copied in to the team for review at
 6 their leisure.
 7 Q. I see.
 8 If we turn to another email, {HAR00004435}, this is
 9 an email from Ray Bailey to you. This is
 10 16 August 2015, so again quite late on in the project,
 11 and we just have Ben Bailey there copied in. Do you see
 12 that there?
 13 A. Yes.
 14 Q. We can see him saying in the beginning of that email:
 15 "Hi Kevin
 16 "I have been looking at Grenfell and I am extremely
 17 concerned about getting completed.
 18 "The completion date is 23rd October which is just
 19 9 weeks away.
 20 "This means that we have to start removing
 21 Mastclimbers in 6 weeks.
 22 "As I understand it there is still a large amount of
 23 fabrication details to be issued. Once these are issued
 24 the material has to be manufactured and then installed."
 25 And then he has a number of topics that he goes

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1 through which we don't need to look at in detail,
 2 although note one of those is the crown, do you see that
 3 there?
 4 A. Yes.
 5 Q. Crown details need to be released.
 6 Would it be usual to still be issuing fabrication
 7 drawings only nine weeks before completion?
 8 A. Yes, yes, quite common. Yes, quite common.
 9 Q. That's common on projects, is it?
 10 A. Yes, yes.
 11 Q. So there was nothing unusual about this occurring?
 12 A. No, no, not at all. No.
 13 Q. Would you agree that Mr Bailey does seem concerned? He
 14 says "extremely concerned about getting completed".
 15 A. I would imagine he suddenly realised there was a date
 16 for the mast climbers to be removed, and that's probably
 17 focused him to speak to all members of the team to make
 18 sure everyone is going to get their works completed in
 19 time.
 20 Q. Yes.
 21 Was this a project, looking back on it, that became
 22 rushed as the project neared its end, from your
 23 perspective?
 24 A. No, I don't believe so.
 25 Q. So you don't think that affected the quality of the

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1 designs that were produced?
 2 A. No, not at all.
 3 Q. Now, I want to come on to the general regulatory
 4 requirements and look at a number of topics relevant to
 5 that.
 6 First up, can we just consider your CV briefly.
 7 This is {HAR00005325}. So this is your CV. Do you
 8 recognise that there?
 9 A. Yes, yes.
 10 Q. And we can see in "Role" you say you are:
 11 "Designer of curtain walling and associated façade
 12 elements to include GA ..."
 13 Is that general arrangement design proposals?
 14 A. That's correct.
 15 Q. "... fabrication drawings and material scheduling."
 16 What does material scheduling mean?
 17 A. That's lists of quantities and sizes of materials that
 18 need to be ordered.
 19 Q. I see, yes:
 20 "Site meetings and surveys undertaken ... Liaison
 21 with internal & external design teams and specialists.
 22 Understanding of commercial implications ..."
 23 So we have all of that there.
 24 In the beginning of that paragraph, I note we've got
 25 "Designer of curtain walling". Should we note the

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1 emphasis on curtain walling there as opposed to designer
 2 of curtain walling and cladding?
 3 A. Well, it's not exclusive, but that is my main line of
 4 business.
 5 Q. Yes.
 6 Is it fair to say that you presented yourself as
 7 having a range of skills that one would expect from
 8 a main designer of a façade?
 9 A. Yes.
 10 Q. As a professional designer of façades, do you agree that
 11 it was important that you kept up to date with relevant
 12 changes in the industry, including industry practice and
 13 guidance?
 14 A. Not specifically. As a lead designer I would say yes,
 15 but I was never purporting to be a lead designer; I was
 16 a draughting resource.
 17 Q. Yes. So does that mean you didn't think it was
 18 necessary for you to keep up to date with industry
 19 guidance on façades?
 20 A. Not specifically, but that's not to say I didn't in
 21 certain areas.
 22 Q. No.
 23 Can you recall, what steps did you take when you
 24 were working on the Grenfell project to ensure that you
 25 understood what the relevant regulatory requirements

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1 were?
 2 A. Again, it wasn't my responsibility to provide this sort
 3 of back-up for Harley; however, during the course of
 4 Grenfell, I did take recourse to refresh myself in
 5 certain areas of ADB.
 6 Q. ADB?
 7 A. Yes.
 8 Q. Anything else that you looked at?
 9 A. I had a brief look at the use of Celotex over 18 metres.
 10 Q. Yes.
 11 A. And a brief look at CWCT, the guidance for -- I can't
 12 remember the title, but basically it's the cladding
 13 requirements.
 14 Q. Yes. So you knew at the time that there was guidance
 15 that you could access out there --
 16 A. Oh, yes.
 17 Q. -- if you wanted further detail in a particular area?
 18 A. Yes.
 19 Q. And including on fire performance and the fire
 20 performance of façades, did you have an awareness of
 21 that?
 22 A. Fire performance of façades?
 23 Q. Yes, that there was industry guidance out there that
 24 would provide guidance on the design of façades from
 25 a fire perspective?

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1 A. I was aware of things like BR 135.
 2 Q. Yes.
 3 A. But, again, my role wasn't to investigate all this to
 4 the Nth degree. I was part of a technical team.
 5 Q. Yes.
 6 In practice, did you ever in fact analyse the design
 7 as provided in Studio E's drawings to check for
 8 compliance with relevant regulatory requirements?
 9 A. Not in general, but when we got to the question of
 10 cavity barriers, I did put a little bit of effort in,
 11 yes.
 12 Q. Yes.
 13 When you received the full set of Studio E
 14 drawings -- I think you're sent a first big pack
 15 in August 2014 -- did you undertake any interrogation or
 16 investigation of those designs before you yourself began
 17 work in developing that design?
 18 A. No, nothing jumped out at me as requiring any concern.
 19 Q. So would it be fair to say that you adopted the work
 20 that they had already produced?
 21 A. That's correct, yes. And of course, this is work that
 22 Harleys had already signed up to before I was even
 23 employed.
 24 Q. When you say it's work that Harleys had already signed
 25 up to, do you mean that your understanding was that

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1 Harley would have looked at the Studio E drawings and
 2 satisfied themselves before they engaged you that the
 3 designs were compliant with relevant requirements?
 4 A. Maybe not fully compliant, but they certainly spent
 5 a lot of time looking at these designs so they were able
 6 to provide a competitive quotation.
 7 Q. And you would have expected them, as part of that
 8 process, would you, to have picked up any compliance
 9 issues?
 10 A. Not necessarily, no.
 11 Q. No. But any obvious compliance issues?
 12 A. Obvious ones, yes.
 13 Q. Now, we know you were also sent some preliminary design
 14 work that Sam Anketell-Jones and Ray Bailey had been
 15 working on; do you recall that?
 16 A. Yes, yes, I do.
 17 Q. Did you analyse their work for compliance with relevant
 18 regulatory requirements?
 19 A. There was nothing to analyse.
 20 Q. Okay.
 21 Were you sent either the whole of or parts of the
 22 NBS specification that had been drafted by Studio E?
 23 A. I certainly had some of the NBS. Whether I had all of
 24 it, I don't know.
 25 Q. Let's just have a look at that. So if we go to

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1 {SEA00000169}. That was the front page of the NBS spec.
 2 It's a very long document because it had lots of
 3 different work packages in it.
 4 A. Yes.
 5 Q. But if we go to the rainscreen cladding part, that's at
 6 page 64 {SEA00000169/64}. So there's a H92 section.
 7 A. Yes.
 8 Q. I think it's just disappeared from the bottom of the
 9 page. It's around 11 pages, this section.
 10 Do you recall seeing this H92 section of the NBS?
 11 A. I don't recall specifically, but I would have imagined
 12 this was part of my -- part of the information that was
 13 issued to me. Generally, elements of the NBS spec would
 14 be issued to the subcontractor that apply to their
 15 works. So you might get the H11, the L10, L20, H92,
 16 because they all refer to different elements on the
 17 project.
 18 Q. Yes.
 19 A. But they wouldn't be getting elements that refer to
 20 ground works or internal works, that would just be too
 21 confusing.
 22 Q. So looking at this now, do you think it's likely that
 23 you were provided with some aspects of the H92 section?
 24 A. Yes, quite probably, yes.
 25 Q. That bit that's there on the screen shows that

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1 contractors had to submit alternative supply and install
 2 costs for different rainscreen materials.
 3 A. This was at tender stage, yes, way before I was
 4 involved, yes.
 5 Q. Yes.
 6 Mr Anketell-Jones has said that he didn't review the
 7 NBS specification. Would you have expected him to have
 8 done that?
 9 A. What, review for compliance?
 10 Q. Well, read it and understood it. He's said that that
 11 wasn't part of his role.
 12 A. Harley as an entity would have.
 13 Q. Yes.
 14 A. Without a doubt. Now, different members may have read
 15 different elements. Certainly Mike Albiston would have
 16 had to read elements to make sure he was pricing the
 17 right elements. Mark Harris would have probably done
 18 the same. Ray may have read other areas. But, yes, it
 19 would have been read.
 20 Q. Yes, but my question was whether you would have expected
 21 Mr Anketell-Jones, as design manager, to have read this
 22 H92 section?
 23 A. I wouldn't necessarily -- I wouldn't say one way or the
 24 other to be honest.
 25 Q. I see.

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1 Can we turn on to page 68 {SEA00000169/68} within
 2 the NBS spec, and I want to look first at item 210. So
 3 here we get the general requirements and preparatory
 4 work in H92, and it says "Design" in 210. It says:
 5 "Rainscreen cladding system and associated features:
 6 Complete detailed design in accordance with this
 7 specification and the preliminary design drawings and
 8 submit before commencement of fabrication."
 9 Do you see that there?
 10 A. Yes.
 11 Q. So this seems to be envisaging that detailed design work
 12 would be done by either Rydon or its subcontractors.
 13 A. Yes.
 14 Q. Then at 220 on the same page, just down,
 15 "Specification", we can see it says:
 16 "Compliance standards: The Centre for Window and
 17 Cladding Technology ... 'Standard for systemised
 18 building envelopes'"
 19 Do you see that there?
 20 A. Yes, yes, that's quite normal.
 21 Q. Yes, and it talks about it again just below, and I think
 22 that's a standard that's mentioned a few times in this
 23 NBS spec.
 24 Were you aware at the time you were working on the
 25 project that the façade had to comply with that CWCT

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1 guidance?
 2 A. Yes, yes.
 3 Q. You were?
 4 A. Yes.
 5 Q. We know that was dated March 2008, so do you think you
 6 looked at that CWCT guidance during the course of the
 7 Grenfell project?
 8 A. I certainly did.
 9 Q. So does it follow that you did consider how you would
 10 ensure that your design complied with the CWCT standard?
 11 A. I was not really looking to that degree. It was when we
 12 got to the discussion around cavity barriers that
 13 I looked at this for guidance, and this combined with
 14 ADB didn't really point me in a very positive direction.
 15 Q. So just to be clear, you wouldn't have looked at this
 16 guidance before you had recourse to look at it in the
 17 context of cavity barriers?
 18 A. No.
 19 Q. Now, the Building Regulations. At the time of the
 20 Grenfell project, were you familiar with schedule 1 to
 21 the Building Regulations and, in broad terms, the
 22 functional requirements that it set out?
 23 A. Broadly, yes.
 24 Q. Can you explain what you understood by a functional
 25 requirement?

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1 A. How do you -- well, no, I can't.
 2 Q. Did you understand that that set effectively
 3 a performance that, say, an external wall would need to
 4 meet --
 5 A. Yes, yes, I can understand that.
 6 Q. -- rather than a prescriptive standard?
 7 A. Yes.
 8 Q. And what about part B, fire safety, in schedule 1?
 9 Were you aware that part B broke down into functional
 10 requirements B1 to B5?
 11 A. Yes.
 12 Q. And were you aware that there was requirement B4
 13 relating to the external wall?
 14 A. That is very pertinent to what we were doing there, yes.
 15 Q. Can you help us as to what your understanding was of
 16 what the B4 requirement was at the time?
 17 A. Well, it's requirements for protection against fire.
 18 Q. Protection against fire?
 19 A. Yes, yes, on the exterior of the building.
 20 Q. What about that the external wall shall adequately
 21 resist the spread of fire --
 22 A. That's correct, yes.
 23 Q. -- across the walls and from one building to another?
 24 A. Yes.
 25 Q. You understood that?

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1 A. Yes.
 2 Q. Can we look then at Approved Document B. This is
 3 {CLG00000224}.
 4 So this is Approved Document B. It's the 2006
 5 edition, which incorporates various amendments, and this
 6 one has the 2013 amendments. So this would have been
 7 the version of Approved Document B at the time you were
 8 working on the Grenfell project.
 9 A. Yes.
 10 Q. What was your understanding of the purpose of ADB, of
 11 this document?
 12 A. To ensure compliance.
 13 Q. To ensure compliance?
 14 A. Yes.
 15 Q. Did you understand that it was intended to give
 16 practical guidance on how to meet the obligations under
 17 the Building Regulations?
 18 A. Yes, I understand that's what the intention was, yes.
 19 Q. And at the time of the Grenfell project, so let's take
 20 when you start working in August 2014, how familiar
 21 were you with ADB?
 22 A. It was a document I would refer to occasionally on many
 23 jobs over the years.
 24 Q. Yes.
 25 A. I wouldn't know it explicitly.

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1 Q. No.
 2 A. I would just use it to refer to.
 3 Q. Yes. And when you would refer to it, how would you look
 4 at it? Would you have a hard copy, would you look at it
 5 electronically?
 6 A. I would look electronically.
 7 Q. Had you ever attended a course or any similar training
 8 that provided education on ADB and its requirements?
 9 A. No.
 10 Q. When you were working on the design of a façade,
 11 would it normally include some element of checking
 12 Approved Document B? Was that a commonplace thing to
 13 do?
 14 A. If I was in doubt about anything, or if the
 15 architectural information provided seemed poor, then
 16 I may refer to this --
 17 Q. Yes.
 18 A. -- just as a process so that I could return to the
 19 architect and say, "Have you done your designs with this
 20 in mind?"
 21 Q. Yes. So would you say that was a common occurrence on
 22 jobs you'd been involved in before Grenfell or was that
 23 the exception?
 24 A. A common occurrence that I would refer to it, but
 25 relatively rare that I would put it back to the

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1 architect that I feel it's not complying.
 2 Q. If we go on within this document to page 93
 3 {CLG00000224/93}, we see the B4 requirements set out.
 4 So there we have the functional requirement B4.(1) which
 5 we were just discussing:
 6 "... adequately resist the spread of fire over the
 7 walls and from one building to another, having regard to
 8 the height, use and position of the building."
 9 Do you see that there?
 10 A. Yes.
 11 Q. And then those aspects are dealt with in section 12,
 12 "Construction of external walls", of ADB, and if we turn
 13 to page 95 {CLG00000224/95}, if we look at the bottom of
 14 that page, in the right-hand column, "External wall
 15 construction", 12.5, the first paragraph reads:
 16 "The external envelope of a building should not
 17 provide a medium for fire spread if it is likely to be
 18 a risk to health or safety. The use of combustible
 19 materials in the cladding system and extensive cavities
 20 may present such a risk in tall buildings."
 21 Do you see that there?
 22 A. Yes.
 23 Q. Is that something you were aware of at the time of the
 24 Grenfell project?
 25 A. In general anyway, yes.

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1 Q. In general anyway?
 2 A. Yes.
 3 Q. So that was just something you felt was obvious,
 4 did you?
 5 A. That's right, yes.
 6 Q. And that the use of combustible materials in the
 7 cladding system might present a risk in tall buildings,
 8 were you specifically aware of that?
 9 A. Yes.
 10 Q. Then it says this in the next paragraph:
 11 "External walls should either meet the guidance
 12 given in paragraphs 12.6 to 12.9 [those appear below] or
 13 meet the performance criteria given in the BRE Report
 14 Fire performance of external thermal insulation for
 15 walls of multi-storey buildings (BR 135) for cladding
 16 systems using full scale test data from BS 8414 ..."
 17 Do you see that there?
 18 A. Yes.
 19 Q. So it's providing here two routes: either a route
 20 through paragraphs 12.6 to 12.9 or the BR 135 route.
 21 A. Right.
 22 Q. Do you agree?
 23 A. Yes, yes, I agree with that.
 24 Q. Did you understand that at the time of the Grenfell
 25 project?

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1 A. I don't think I gave it a second thought, to be honest,
 2 because I was given the build-up of the construction
 3 from my client. As an experienced cladding company,
 4 I had no reason to doubt that it would be compliant
 5 anyway.
 6 Q. I see, yes.
 7 So does that mean that you didn't know on the
 8 Grenfell project whether the route to compliance was
 9 through the paragraphs 12.6 to 12.9 or through BR 135?
 10 You didn't know that at the time?
 11 A. No, no, no.
 12 Q. And that wasn't something that would have occurred to
 13 you to check?
 14 A. Not at all, no.
 15 Q. Paragraph 12.6, then, that starts at the bottom of that
 16 page says:
 17 "The external surfaces of walls should meet the
 18 provisions in Diagram 40."
 19 Do you see that there?
 20 A. Yes, yes.
 21 Q. That talks about external surfaces of walls. Which
 22 aspect of the external wall at Grenfell did you think
 23 was classed as the external surface?
 24 A. It was the cladding.
 25 Q. The cladding?

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1 A. Yes.
 2 Q. The rainscreen cladding?
 3 A. That's correct, yes.
 4 Q. So the outer panels?
 5 A. That's right.
 6 Q. Were you familiar at the time of the Grenfell project
 7 with diagram 40 of ADB?
 8 A. Yes, yes, it's the one where it shows the different
 9 heights of buildings and different proximities.
 10 Q. Yes, it's on the next page. Let's go to that. So this
 11 is at page 97 {CLG00000224/97}. There it is.
 12 A. Yes.
 13 Q. Did you know which of these sketches applied at
 14 Grenfell?
 15 A. Yes, it was the bottom right.
 16 Q. Yes. And were you aware, therefore, that any dimension
 17 over 18 metres needed to be class 0, national class, or
 18 class B-s3, d2 or better?
 19 A. Yes.
 20 Q. Were you familiar with national class 0 as
 21 a classification for building materials?
 22 A. Yes.
 23 Q. What did you understand national class 0 to mean?
 24 A. It means a product that does not promote the spread of
 25 flame across its surface.

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1 Q. Did you understand what testing a material would have
 2 had to have undergone to meet the class 0
 3 classification?
 4 A. I didn't need to know that. I would rely on
 5 documentation if it came to it.
 6 Q. So does it follow that you didn't know that it was the
 7 BS 476 part 6 and part 7 tests that fed into the class 0
 8 classification?
 9 A. No.
 10 Q. In your mind, what was the significance of a material
 11 having class 0?
 12 A. It's not going to promote fire.
 13 Q. And what materials did you think class 0 was relevant to
 14 in an external wall?
 15 A. I think in the case of Grenfell and any other cladding
 16 project, it would be from the concrete face of the
 17 existing building outwards.
 18 Q. So all those elements in the external wall --
 19 A. That's right.
 20 Q. -- you thought class 0 was relevant to?
 21 A. There are exceptions that you're allowed to use, but the
 22 major elements, yes, would all have to be class 0.
 23 Q. And would you ever check that each element of the wall
 24 had class 0?
 25 A. No, because I would be -- I was provided with the

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1 materials that had been selected.
 2 Q. Yes.
 3 A. And I had no reason to doubt that they were class 0 or
 4 otherwise.
 5 Q. Yes.
 6 Was that a phrase you were aware of that was used
 7 regularly in the construction industry at the time,
 8 class 0?
 9 A. Yes, yes.
 10 Q. Had you undertaken any form of professional development
 11 or training in relation to the testing and
 12 classification of building products?
 13 A. No.
 14 Q. Was it ever your practice to examine the testing
 15 evidence that you were presenting with in order to
 16 ensure it complied with the guidance in
 17 Approved Document B?
 18 A. No, no, not at all.
 19 Q. That was not part of your job?
 20 A. No.
 21 Q. Now, in Approved Document B, we'll come back to
 22 section 12 in a moment, I just want to look now at what
 23 the definition is of class 0 at page 122
 24 {CLG00000224/122}. This is in paragraph 13, which is
 25 halfway down on the left-hand side of that column, and

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1 it says:
 2 "The highest National product performance
 3 classification for lining materials is Class 0. This is
 4 achieved if a material or the surface of a composite
 5 product is either ..."
 6 And you've got two routes to getting class 0: either
 7 it's composed throughout of materials of limited
 8 combustibility, or it's undergone certain other testing.
 9 Do you see that there?
 10 A. Yes.
 11 Q. That second part is referring to the BS 476 part 6 and 7
 12 testing, but you wouldn't have been aware of that?
 13 A. No.
 14 Q. But looking at that first part saying it's the highest
 15 national product performance classification for lining
 16 materials, is that something you were aware of, that
 17 class 0 was primarily a classification that was
 18 concerned with lining materials?
 19 A. No, no.
 20 Q. You weren't aware of that.
 21 Did you think that class 0 meant a material couldn't
 22 burn?
 23 A. I don't think I considered its flammability. I did know
 24 that it wouldn't promote flame across its surface.
 25 Q. Okay.

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1 Then if we can go back within section 12 of ADB to
 2 look at paragraph 12.7 on page 96 {CLG00000224/96}, we
 3 see here there's a heading "Insulation
 4 Materials/Products". Do you see that there?
 5 A. Yes.
 6 Q. It says this:
 7 "In a building with a storey 18m or more above
 8 ground level any insulation product, filler material
 9 (not including gaskets, sealants and similar) etc. used
 10 in the external wall construction should be of limited
 11 combustibility (see Appendix A)."
 12 Do you see that there?
 13 A. Yes.
 14 Q. At the time of the Grenfell project, were you familiar
 15 with that paragraph of Approved Document B?
 16 A. I couldn't say one way or the other.
 17 Q. You couldn't say?
 18 A. No.
 19 Q. Had you heard at the time of the Grenfell project of the
 20 term "limited combustibility"?
 21 A. Yes.
 22 Q. What was your understanding of what limited
 23 combustibility meant?
 24 A. Well, it limited the amount of flame it would promote.
 25 Q. I see. So your understanding, was it, was that limited

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1 combustibility was a description of how much
 2 combustibility there was?
 3 A. That's right, yes.
 4 Q. Did you understand at this time that for a material to
 5 be of limited combustibility it had to have achieved
 6 certain passes in certain tests?
 7 A. Oh, I would imagine so, yes.
 8 Q. It refers to appendix A. I want to look at table A7 at
 9 page 132 {CLG00000224/132}. So this is table A7, "Use
 10 and definitions of materials of limited combustibility".
 11 Do you see that there?
 12 A. Yes.
 13 Q. So this is a guide to when something is going to be of
 14 limited combustibility. What we get down the left-hand
 15 side is various references in ADB where limited
 16 combustibility is said to be needed.
 17 If you look at item 8 down that list -- do you see
 18 that?
 19 A. Yes.
 20 Q. It's got:
 21 "Insulation material in external wall construction
 22 referred to in paragraph 12.7."
 23 Do you see that?
 24 A. Yes.
 25 Q. Now, did you ever look at this table A7 during or prior

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1 to the Grenfell project?

2 A. If I did, it wasn't in depth. I would have just glossed

3 over it.

4 Q. What we see is that the definition of materials of

5 limited combustibility for insulation material in

6 external walls is either something that you get

7 classified under the national class system, and it's

8 usually involving tests under BS 476-11, or under the

9 European class system, it's any materials in (a) and (b)

10 above, which are basically A1 or A2 materials. Do you

11 see that there?

12 A. Yes.

13 Q. On the European classifications, were you familiar with

14 A1, A2, B, C, D? Did that mean anything to you?

15 A. No, not at all. No.

16 Q. So in diagram 40, which we looked at earlier, there was

17 reference to class B --

18 A. Yes, but it was also classified -- mentioning class 0.

19 Q. It was.

20 A. So that's the point that would jump out and imply

21 conformity.

22 Q. Would it be fair to say that, at the time of the

23 Grenfell project, you weren't aware that insulation

24 products needed to be of limited combustibility if

25 following this guidance, and that that had a special

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1 definition?

2 A. Yes, I knew they had to be class 0, but I didn't

3 specifically know they had to be limited combustibility

4 at the time, no.

5 Q. So if you were told, "Well, this insulation product is

6 class 0", would you think that's all you needed to know

7 in terms of whether it could be used in an external wall

8 above 18 metres?

9 A. It's kind of immaterial because I wasn't -- my remit

10 wasn't to consider the materials that were specified for

11 the job.

12 Q. Sure. We'll come on and look at it in due course, and

13 I think you confirmed in your evidence that you did have

14 a look at the Celotex --

15 A. Yes.

16 Q. -- specification guide for the insulation, and I'm just

17 keen to understand exactly what you had understood about

18 ADB prior to that.

19 A. Yes.

20 Q. Is that okay?

21 A. That's fine.

22 Q. BR 135, can we just turn that up. This is

23 {BRE00005554/2}. Now, this is the second edition of

24 BR 135 that was dated from 2003. Does that look

25 familiar to you, that document?

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1 A. I think I saw the previous edition, to be honest.

2 Q. The first edition, did you?

3 A. Yes.

4 Q. Okay. Well, this is the second edition. I just want to

5 run through a few passages in this guidance to see

6 whether you were aware of some of the concepts it's

7 referring to.

8 A. Sure.

9 Q. Now, on page 7 {BRE00005554/7} there's a reference to

10 and a picture from the Garnock Court fire. Do you see

11 that there?

12 A. Yes, I see that.

13 Q. It was a multi-storey block in Scotland and there was

14 a fire in the summer of 1999.

15 Now, I think you said earlier that you weren't aware

16 of any high-rise cladding fires --

17 A. No.

18 Q. -- prior to Grenfell. We can see this one is dealt with

19 here, so would that suggest that maybe you didn't read

20 this document prior to --

21 A. Was this in the previous version?

22 Q. We'd have to check that. We'll have a look at the first

23 edition.

24 A. I mean, by saying that I wasn't aware, it doesn't mean

25 to say there weren't cladding fires.

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1 Q. No.

2 A. So, no, I wasn't aware, is the simple answer.

3 Q. On page 9 {BRE00005554/9}, then, we get the mechanisms

4 of rapid fire spread spelt out in a diagram.

5 A. Yes.

6 Q. Can you see, you've got "Rapid Fire Spread", "Restricted

7 Fire Spread". Is that diagram something familiar to

8 you?

9 A. Definitely.

10 Q. So do you agree that you understood that cladding

11 systems can create the opportunity for rapid unseen

12 flame spread?

13 A. Yes.

14 Q. And for flame spread to keep breaking back in as the

15 flames go up the tower block?

16 A. Yes, definitely, hence the need for compartmentation.

17 Q. On page 10 {BRE00005554/10}, paragraph 3, under the

18 heading "Cavities", I just want to look at what is said

19 under "Cavities", if we pick it up in the third line, it

20 says:

21 "If flames become confined or restricted by entering

22 cavities within the external cladding system, they will

23 become elongated as they seek oxygen and fuel to support

24 the combustion process. This process can lead to flame

25 extension of five to ten times that of the original

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1 flame lengths regardless of the materials used to line
 2 the cavities ."
 3 Do you see that there?
 4 A. Yes.
 5 Q. "This may enable fire to spread rapidly, unseen, through
 6 the external cladding system ..."
 7 That concept there of flame elongation of five to
 8 ten times, were you aware of that kind of information?
 9 A. Yes, I always knew that as chimney effect.
 10 Q. Chimney effect?
 11 A. Yes.
 12 Q. So you knew that was a risk in the design of tall
 13 buildings?
 14 A. Yes, yes. Any building.
 15 Q. And again, on that page, under paragraph 5, if we go to
 16 the bottom of this page, it warns there that -- if we
 17 look at the second half of that, four lines down:
 18 "... where the external cladding system is
 19 contributing to the fire propagation rate, the potential
 20 exists for the fire to affect multiple storeys
 21 simultaneously, thus making firefighting more
 22 difficult ."
 23 Again, were you aware of that?
 24 A. Yes, I was aware of it, but it seems a nonsensical
 25 statement because you shouldn't be using cladding

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1 systems that contribute to the fire .
 2 Q. Yes. I see.
 3 On page 17 {BRE00005554/17}, under the heading
 4 "System-specific details: ventilated cavities" -- do you
 5 see that in the middle?
 6 A. Mm-hm.
 7 Q. In the third paragraph down, it says:
 8 "Once the fire is within the cavity, it may
 9 propagate unseen through the system if adequate fire
 10 barriers are not employed. This may result in
 11 significant risk of system collapse or fire break out at
 12 significant distances from the fire origin."
 13 A. Yes.
 14 Q. Do you see that there?
 15 A. Yes.
 16 Q. So this guidance warned that close attention should be
 17 paid to the installation of cavity barriers.
 18 A. Yes.
 19 Q. You can see that in the paragraph below.
 20 A. Yes.
 21 Q. Then if we go immediately below that, "Performance of
 22 materials in fire", we see "Insulation". It says:
 23 "The performance of insulating material when
 24 subjected to this type of fire scenario has been
 25 outlined in the previous section. Typically,

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1 non-combustible materials are used in these systems as
 2 it is difficult to prevent fire entering the cavity and
 3 spreading through the insulating material."
 4 Do you see that there?
 5 A. Yes.
 6 Q. Again, were you aware at the time of the Grenfell
 7 project that typically non-combustible materials were
 8 used as the insulation in such systems?
 9 A. Yes.
 10 Q. And what would you take that to mean, non-combustible
 11 materials? Can you give us an example of that?
 12 A. Well, certainly Rockwool, but the implication was that
 13 the PIRs were suitable also.
 14 Q. Well, we'll come on and look at what was said about the
 15 PIR in a moment.
 16 Now, just at the bottom of this page, under the
 17 heading "External panel", it's got a heading there
 18 "Non-combustible materials and materials of limited
 19 combustibility", do you see that there?
 20 A. Yes.
 21 Q. Were you aware that there was a distinction between
 22 materials that were non-combustible and those that were
 23 limited combustibility?
 24 A. Yes, yes.
 25 Q. You were?

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1 A. Mm.
 2 Q. But I thought you'd said that you weren't aware that
 3 there was a technical meaning of limited combustibility?
 4 A. No, but it's quite clear. This is either
 5 non-combustible or it's limited combustibility. That's
 6 just language, isn't it?
 7 Q. And again --
 8 A. Are you asking me if I knew the particular materials?
 9 Q. Well, because it says:
 10 "... (as designed in Tables A6 and A7 of
 11 Approved Document B)."
 12 A. Yeah, no, I don't -- I don't know which materials were
 13 which.
 14 Q. No.
 15 Then if we look at the top of page 18
 16 {BRE00005554/18}, still in this section headed "External
 17 panels", there's a discussion about metal panels. Just
 18 picking it up in the fourth line up from the bottom of
 19 that section, it says:
 20 "Metal panels such as aluminium may fall from the
 21 system if the strength of the fixings is affected by the
 22 local fire source. They may also melt, generating
 23 molten metal debris if exposed directly to the sustained
 24 flame envelope."
 25 Do you see that there?

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1 A. Yes.
 2 Q. Did you understand that about metal panels such as
 3 aluminium?
 4 A. Well, normally the fixings would be stainless steel,
 5 which wouldn't melt.
 6 Q. I see. But did you understand that they might melt,
 7 generating molten metal debris, if exposed directly to
 8 the sustained flame envelope?
 9 A. It's saying there that the metal panels may fall if the
 10 strength of the fixings is affected, not the panel.
 11 Q. Yes, but in the next sentence it says:
 12 "They may also melt, generating molten metal debris
 13 if exposed directly to the sustained flame envelope."
 14 A. Oh, I see, yeah.
 15 Q. Do you see that there?
 16 A. I agree with that, yes.
 17 Q. Yes.
 18 Now, the guidance that was available in terms of
 19 BR 135 for the majority of the period of the Grenfell
 20 refurbishment, and certainly during your time on it, was
 21 the third edition of BR 135.
 22 A. Right.
 23 Q. If we can bring this up at {CEL00003364}. That's the
 24 third edition, it's by Sarah Colwell and Tony Baker. Do
 25 you see that there?

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1 A. Yes.
 2 Q. Does that front page mean anything to you?
 3 A. That looks more familiar, to be honest.
 4 Q. More familiar?
 5 A. Yes.
 6 Q. So do you think it might have been this version of the
 7 guide --
 8 A. Maybe.
 9 Q. -- that you saw?
 10 Can we just look at the first few pages of this, if
 11 we just scan through the next few pages, and the next
 12 one, and the next one, and the next one, and the next
 13 one -- don't worry, I'll look for it overnight.
 14 Let's pick it up at page 11 {CEL00003364/11},
 15 paragraph 2.1, there's a discussion there about the
 16 Building Regulations in the first paragraph, and:
 17 "The Regulations and supporting guidance ... set out
 18 acceptance criteria ..." in the next paragraph.
 19 And then it says this:
 20 "These potentially conflicting requirements are
 21 highlighted in the area of innovative materials and
 22 designs, which are being driven by the need to construct
 23 more energy-efficient and sustainable buildings. In
 24 order to meet these design challenges, the range of new
 25 and innovative materials and designs of systems being

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1 offered as potential solutions has also increased the
 2 volumes of potentially combustible materials being used
 3 in external cladding applications."
 4 Do you see that there?
 5 A. Yes.
 6 Q. So would you agree that this guidance is warning and
 7 drawing attention to the rapid development of new
 8 products on external walls --
 9 A. It appears to be, yes.
 10 Q. -- containing potentially combustible materials?
 11 A. Yes.
 12 Q. Is that something you remember being aware of either as
 13 a result of reading this guidance or more generally in
 14 the industry?
 15 A. No, as I said before, this was a document I would have
 16 flicked through to look for guidance when we were
 17 discussing cavity barriers. But, no, I would definitely
 18 not have read it in that detail.
 19 Q. If we can look at another part, on page 22
 20 {CEL00003364/22}, under paragraph 6.4.1, under the
 21 heading "Insulation" -- so it's in the bottom half of
 22 that page, there we go, we see 6.4.1, "Performance of
 23 materials in fire", "Insulation", and it says this:
 24 "As it can be difficult to prevent fire entering the
 25 cavity and spreading in these systems, the selection of

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1 the insulation materials used and the design of the fire
 2 barriers to close these cavities are particularly
 3 important."
 4 Do you see that there?
 5 A. Yes, yes.
 6 Q. Again, were you aware that there was guidance such as
 7 this warning that the selection of the insulation
 8 materials to be used was particularly important?
 9 A. Well, we know from ADB that all the materials -- it's
 10 important to select the materials properly, so I don't
 11 see this as anything groundbreaking.
 12 Q. I see. So you don't think this was adding to what you'd
 13 been told by ADB?
 14 A. No.
 15 Q. But just to be clear, I think you said you weren't
 16 familiar with paragraph 12.7 of ADB on insulation; is
 17 that right?
 18 A. I was never reviewing the materials.
 19 Q. No.
 20 Just one more reference in this document. Staying
 21 with page 22, under the heading "External panels and
 22 finishes", it's that last paragraph there beginning,
 23 "Combustible panels are typically". It's at the bottom
 24 right-hand corner of that page. Can you see that?
 25 A. Yes.

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1 Q. If we can read that, it says:
 2 "Combustible panels are typically based on vinyl or
 3 glass-reinforced plastic, although various new products
 4 are being developed in this area, some of which also
 5 contain insulation materials. These products generally
 6 have good surface spread of flame characteristics to
 7 prevent rapid fire spread across the surface of the
 8 system, but once the panels become involved in the fire,
 9 they have the potential to generate falling debris, add
 10 to the overall fire load, and provide a route for fire
 11 to propagate up the outside of the building."
 12 Do you see that there?
 13 A. Yes.
 14 Q. Now, were you aware of that guidance there, that various
 15 new products were being developed, some of which
 16 containing insulation materials? So this is under the
 17 heading "External panels and finishes".
 18 A. Yes.
 19 Q. Were you aware of that?
 20 A. I was aware there were new products, but I wasn't aware
 21 that we were necessarily using anything new that hadn't
 22 been certified as safe.
 23 Q. Were you aware that some of these new products generally
 24 have good surface spread of flame characteristics, but
 25 once they become involved in a fire, they have the

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1 potential to generate falling debris, add to the overall
 2 fire load and provide a route for fire to propagate up
 3 the outside of the building? Were you aware of that?
 4 A. No, no.
 5 Q. Now, in terms of other guidance documents, if we look at
 6 paragraph 50 of your statement, this is
 7 {HAR00010419/13}, it's in the middle of that page,
 8 paragraph 50, you say:
 9 "I recall consulting the following when considering
 10 the requirement for cavity barriers: (1) Approved
 11 Document B; (2) the ... (CWCT) standard for systemised
 12 building envelopes Part 6 - Fire performance; (3) CWCT
 13 technical note TN73 Fire performance of curtain walls
 14 and rainscreens; (4) Siderise technical literature for
 15 RH and RV cavity barriers."
 16 We see that there.
 17 A. Yes.
 18 Q. So you've clearly told us what you consulted there when
 19 considering the requirement for cavity barriers.
 20 Did you ever consider these documents in respect of
 21 any other elements of the external wall design?
 22 A. Not at all, no.
 23 Q. If you looked at them when you were considering the
 24 cavity barrier requirement, why not look at them more
 25 generally in terms of the external wall?

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1 A. We seem to have a lack of guidance on cavity barriers.
 2 There seemed to be doubt from the performance of the
 3 barriers, so as a matter of diligence I sought some
 4 further information, and really didn't get very far.
 5 Q. So that's because a specific issue had come up on the
 6 project --
 7 A. Yes.
 8 Q. -- which you needed to drill down further into?
 9 A. That's right.
 10 Q. So that caused you to look at these documents?
 11 A. Yes. Normally I wouldn't concern myself.
 12 Q. In the course of looking at them, did you consider them
 13 more generally in terms of what they were telling you
 14 about external walls, combustible materials?
 15 A. It was specifically looking for guidance on cavity
 16 barriers.
 17 Q. Right.
 18 A. And none of them really -- well, they conflict each
 19 other.
 20 Q. Right.
 21 The BCA, the Building Control Alliance, were you
 22 familiar with that organisation?
 23 A. Not at the time, no.
 24 Q. No. Can I just show you a guidance note produced by
 25 them. If we go to {CEP00057294}, this is Technical

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1 Guidance Note 18. It was issued in June 2014, so just
 2 a few months before you were engaged on the Grenfell
 3 project.
 4 A. Yes.
 5 Q. Now, looking at that now, does that help as to whether
 6 or not you might have been familiar with that document
 7 at the time or read it at the time?
 8 A. No, I definitely didn't see that.
 9 Q. Can we just look at just a couple of pieces of this
 10 guidance.
 11 A. Of course.
 12 Q. Underneath "Key Issues", if we scroll down the page, we
 13 see in the beginning there that it talks about:
 14 "Fire spread via the external wall medium is
 15 exacerbated by the use of combustible materials and
 16 extensive cavities."
 17 We've looked at that already.
 18 Then if you look two paragraphs down from that, it
 19 starts:
 20 "A Surface Spread of Flame Classification does not
 21 infer any resistance to combustibility, it is solely
 22 a measure of the spread of a flame across the surface."
 23 Do you see that there?
 24 A. Yes.
 25 Q. Was that something you were more generally aware of at

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1 the time, that a surface spread of flame classification
 2 didn't infer any resistance to combustibility?
 3 A. Yes.
 4 Q. You were aware of that?
 5 A. Yes.
 6 Q. So does that mean you were aware that class 0 didn't
 7 tell you anything about the combustibility of the
 8 product?
 9 A. Yes, yes. True.
 10 Q. You knew that?
 11 A. Mm.
 12 Q. Then it says:
 13 "Thermosetting insulants ... do not meet the limited
 14 combustibility requirements of AD B2 Table A7 ..."
 15 Do you see that there?
 16 A. Yes.
 17 Q. Was that something you were more generally aware of?
 18 A. No, never considered.
 19 Q. No.
 20 If we go to the second bullet point there in that
 21 same section, it says:
 22 "The BR 135/BS 8414 tests deal solely with the
 23 spread of fire once it has entered the cavity. Hence,
 24 the requirements for cavity barriers in accordance with
 25 Section 9 of AD B2 are required in all cases including

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1 around openings in the façade."
 2 Do you see that there?
 3 A. Yes, I do.
 4 Q. Were you aware more generally that cavity barriers were
 5 required around all openings in the façade?
 6 A. I was aware that in some instances this was
 7 a requirement, but through various routes to compliance,
 8 I understood there were -- it wasn't always applicable.
 9 Q. So you understood through different routes to compliance
 10 you didn't always have to provide cavity barriers around
 11 the windows?
 12 A. That's right, yes.
 13 Q. What route to compliance would you be following not to
 14 include cavity barriers around the windows?
 15 A. I didn't have question to doubt the architect's
 16 drawings.
 17 Q. Does that mean that you'd been involved in some projects
 18 prior to Grenfell where cavity barriers hadn't been
 19 included round the windows?
 20 A. Yes, yes.
 21 Q. You had?
 22 A. Mm.
 23 Q. Which project was that?
 24 A. Below 18 metres though.
 25 Q. Below 18 metres?

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1 A. Mm.
 2 Q. But which project was that?
 3 A. That would be the Devonshire Church in Brighton.
 4 Q. I see.
 5 Given that your experience was predominantly in
 6 curtain walling and glazing, would it be fair to say
 7 that you hadn't had much experience of cavity barriers
 8 in cladding systems prior to Grenfell?
 9 A. That's true.
 10 Q. Yes.
 11 Now, there's a later edition of this BCA guidance
 12 from June 2015, if we just look at this, {CEL00002347}.
 13 This document is dated June 2015. Can you see that at
 14 the top right?
 15 A. (Witness nods).
 16 Q. So it came out during the time you were working on the
 17 Grenfell project.
 18 Again, is your evidence that you weren't aware of
 19 this and didn't read it?
 20 A. No.
 21 Q. Do you see, if we go down under "Key Issues" again and
 22 we look at that last paragraph beginning, "A Surface
 23 Spread of Flame Classification", we can see in that
 24 first bullet point that it's given more examples in
 25 brackets this time of thermosetting insulants which do

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1 not usually meet the limited combustibility
 2 requirements. Do you see that there?
 3 A. Yes.
 4 Q. And we see that polyisocyanurate has been added and is
 5 in there.
 6 A. Yes.
 7 Q. Now, I appreciate you didn't read this guidance, but
 8 were you aware of an issue to do with whether or not
 9 polyisocyanurate insulation could be used in buildings
 10 above 18 metres? Were you aware that that was an issue
 11 that you needed to be alive to?
 12 A. No, no.
 13 Q. No?
 14 A. No, I wasn't aware, no. I'd not read this document.
 15 Q. I think you said you'd used mineral wool on previous
 16 projects, is that right, as the insulation?
 17 A. Yes.
 18 Q. Had you ever used a polyisocyanurate insulation board?
 19 A. Not on a building over 18 metres.
 20 Q. What about a phenolic insulation board? Had you ever
 21 used that previously?
 22 A. Oh, I don't know the difference.
 23 Q. You wouldn't have known the difference?
 24 A. No.
 25 Q. And then in terms of the CWCT, you've told us in your

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1 statement that you did consult some of the CWCT guidance
 2 when you were looking at cavity barriers on the project.
 3 A. Yes.
 4 Q. Can we look at CWCT Technical Note 73, which is one of
 5 those documents you refer to. This is at {CWCT0000019}.
 6 Can you see that there, Technical Note 73, "Fire
 7 performance of curtain walls and rainscreens"?
 8 A. Yes.
 9 Q. Do you see that?
 10 A. Yes.
 11 Q. I don't think it's on this document, but we know it was
 12 dated March or came out in March 2011.
 13 A. Okay.
 14 Q. And we know this is one of the documents that you looked
 15 at.
 16 Now, at the bottom of page 1 and over to page 2
 17 {CWCT0000019/2}, if we can just look at that, we can see
 18 under the heading "Building Regulations", I want to pick
 19 it up in the third paragraph, it says:
 20 "In England, Wales and Northern Ireland, materials
 21 may be described as non-combustible, of limited
 22 combustibility or Class 0 using definitions given in
 23 AD B."
 24 Do you see that there?
 25 A. Yes.

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1 Q. Do you remember reading that at the time you were
 2 involved in the Grenfell project?
 3 A. Not specifically.
 4 Q. Were you aware that this was drawing a distinction
 5 between class 0 and limited combustibility materials?
 6 A. Yes, it appears to be, but again, I wasn't selecting
 7 materials, so it was not on the forefront of my focus at
 8 this time.
 9 Q. Now, moving on to page 4 {CWCT0000019/4} under the
 10 heading "Cavity barriers in rainscreen construction" in
 11 the right-hand column -- do you see that there?
 12 A. Mm-hm.
 13 Q. It says this:
 14 "Fire and smoke spread in rainscreen cavities is
 15 particularly dangerous as it may be more rapid than on
 16 the outside face of the cladding, due to the creation of
 17 a flue, and it may be undetected by building users or
 18 firefighters. It is therefore often necessary to
 19 incorporate cavity barriers in rainscreen cavities to
 20 limit the spread of fire and smoke."
 21 You see that there?
 22 A. Yes, yes.
 23 Q. So that's a general statement.
 24 A. Yes.
 25 Q. And then right at the end of that column, under

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1 "Regulations", it says this:
 2 "For rainscreen walls, AD B requires that cavity
 3 barriers are provided ..."
 4 And if you then go to the top of the next column
 5 {CWCT0000019/5}, and it says there:
 6 "To close the edges of cavities including around
 7 window openings."
 8 Do you see that there?
 9 A. Yes, yes.
 10 Q. Now, you've said that you did consult this guidance at
 11 the time you were considering the requirement for cavity
 12 barriers. Do you remember noticing that it talks about
 13 closing the edges of cavities around window openings?
 14 A. Not specifically, but I knew at the time I was looking
 15 for some more guidance about cavity barriers around
 16 windows and such.
 17 Q. Is what you're trying to say that you were looking for
 18 some very specific guidance about the rating for cavity
 19 barriers?
 20 A. That's right, yes.
 21 Q. And is it your evidence that therefore you weren't
 22 concentrating on anything more general about cavity
 23 barriers, is that what you're saying?
 24 A. No. I mean, the architect showed the cavity barriers
 25 which we replicated, and there was talk about cavity

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1 barriers around window openings, and his details didn't
 2 seem to require it. It was at this time that we started
 3 considering: do we need this extra cavity barrier?
 4 Q. Okay, let's just take that in stages.
 5 So you say, "the architect showed the cavity
 6 barriers which we replicated". I'm going to come back
 7 to that --
 8 A. Yes.
 9 Q. -- and we're going to look carefully at what the
 10 Studio E drawings showed and then what your drawings
 11 showed, so let's park that for the moment.
 12 But then the next bit, you say, "there was talk
 13 about cavity barriers around window openings".
 14 A. Mm.
 15 Q. Can you just tell us when there was talk about cavity
 16 barriers around window openings?
 17 A. Around the table at Harley.
 18 Q. And who did you have those discussions with?
 19 A. By this point it may well have been Ben, certainly Ray.
 20 Q. And can you help us as to what was discussed about
 21 cavity barriers around windows?
 22 A. Only the broad requirement, whether there was
 23 a requirement, and it was deemed that the architect's
 24 drawings showed explicitly what was required and our
 25 drawings were issued for him to comment upon, and which

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1 he approved fully.

2 Q. When you say about the broader requirement, whether they

3 were required, were you solely looking at whether they

4 were required looking at the Studio E drawings, or

5 did you ever have a broader discussion about whether

6 they were required under the regulatory requirements?

7 A. No, because there's routes to compliance, the assumption

8 is the architect may have come up with an alternative

9 route to compliance so as he only needed what he showed

10 on his drawings.

11 Q. When you're talking about routes to compliance, can you

12 help us with what you mean by routes to compliance in

13 the context of cavity barriers?

14 A. Well, there are different -- this is a bit outside my

15 sort of field of expertise, but the architect had the

16 use of a fire consultant and they must have considered

17 this cavity barrier design.

18 Q. Yes.

19 A. Now, between them, they must have considered this design

20 to be compliant. The last thing the architect wants is

21 to say, "Oh, I forgot to put cavity barriers around the

22 windows", and then the subcontractor would be asking the

23 client for more money because they've not provided these

24 items.

25 Q. I see.

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1 Putting aside for a moment what the architect did or

2 did not show on drawings about cavity barriers, were you

3 aware at the time of the Grenfell project that there was

4 guidance, such as the guidance we're looking at here now

5 from the CWCT, which indicated that, as part of the

6 regulatory requirements -- it's under the heading

7 "Building Regulations" -- one was required to close the

8 edges of cavities, including around window openings.

9 Were you aware of that?

10 A. Yes, yes.

11 Q. If you were aware of that, did you never think to say

12 when you were having discussions with Ben and Ray,

13 "Well, I know they're not shown on the drawings, but

14 there is guidance"?

15 A. Yeah. So on 3 March we started an email trail querying

16 the whole scope of the cavity barriers.

17 Q. I see. So you think that was enough in terms of

18 flagging that you needed guidance on that?

19 A. Yes.

20 Q. Did you ever say to Studio E or Rydon, "By the way,

21 there aren't cavity barriers round the windows, but

22 there is guidance that suggests there should be, why

23 don't you have another look at that", did you ever say

24 that?

25 A. Maybe not specifically, but there was many emails

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1 regarding this.

2 Q. Yes.

3 Now, in respect of combustible materials, this piece

4 of guidance, if we look at page 6 {CWCT0000019/6} under

5 the heading "Use of combustible material" in the second

6 paragraph, this piece of guidance says:

7 "To satisfy the recommendations in AD B, insulation

8 and filler materials in walls of a building with a floor

9 more than 18m above ground level are required to be of

10 limited combustibility."

11 Do you see that there?

12 A. Yes.

13 Q. When you looked at this piece of guidance for the

14 purposes of checking on cavity barriers, do you know

15 whether you would have read a section on the use of

16 combustible material?

17 A. I don't recall, to be honest.

18 Q. You don't recall.

19 And then if we look on page 6, right at the bottom

20 of that column, immediately above the heading

21 "Alternative approaches", there's a paragraph beginning,

22 "The only commonly", do you see that there?

23 A. Oh, yes.

24 Q. And it says:

25 "The only commonly used insulation material that

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1 will satisfy the definition of limited combustibility is

2 mineral wool. It is sometimes argued that thermoset

3 insulation materials with non combustible facings may be

4 regarded as satisfying the requirement, noting that

5 their decomposition in fire will release smoke."

6 Do you see that there?

7 A. Yes.

8 Q. Do you know whether that was something you noticed at

9 the time --

10 A. No.

11 Q. -- that it's telling you that the only commonly used

12 insulation material that would satisfy the definition of

13 limited combustibility is mineral wool?

14 A. No, no.

15 Q. You didn't look at that?

16 A. No.

17 Q. And then at the top of the right-hand column on page 6,

18 it says there:

19 "Where testing is carried out in accordance with

20 BS 8414, the test applies to the complete cladding

21 system including insulation, rainscreen, flashings and

22 cavity barriers. Changing any of these components may

23 affect the ability of the wall to resist the spread of

24 fire."

25 Do you see that there?

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1 A. Yes.
 2 Q. Was it ever suggested to you on the Grenfell project
 3 that a BS 8414 test was relevant to the insulation
 4 materials that had been selected?
 5 A. That was way above my remit. I was given the materials
 6 that were going to be used, so there was no need for
 7 anyone to discuss this sort of thing with me.
 8 MS GRANGE: Yes.
 9 Mr Chairman, I think that would be an appropriate
 10 moment for a break.
 11 SIR MARTIN MOORE-BICK: Right. Well, then, we'll have
 12 a break now.
 13 Mr Lamb, we'll have a break now and we'll come back
 14 at 3.30.
 15 THE WITNESS: Okay.
 16 SIR MARTIN MOORE-BICK: Please don't talk to anyone about
 17 your evidence or anything relating to it while you're
 18 out of the room.
 19 THE WITNESS: Okay.
 20 SIR MARTIN MOORE-BICK: If you go with the usher, she'll
 21 look after you. Thank you very much.
 22 (Pause)
 23 Right, 3.30, please.
 24 (3.15 pm)
 25 (A short break)

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1 (3.31 pm)
 2 SIR MARTIN MOORE-BICK: Right, Mr Lamb, ready to carry on?
 3 THE WITNESS: Yes.
 4 SIR MARTIN MOORE-BICK: Very good, thank you.
 5 Yes, Ms Grange.
 6 MS GRANGE: Yes, thank you.
 7 Just to quickly go back, we looked at the third
 8 edition of BR 135, the 2013 edition, if I could just
 9 pull that up again {CEL00003364}. Do you remember
 10 seeing that this afternoon?
 11 A. Yes.
 12 Q. You said that might well have been the version you were
 13 thinking of --
 14 A. Yes.
 15 Q. -- at the time that you read. Then I was kind of
 16 fumbling around at the beginning trying to find some
 17 images of previous cladding fires that I thought I had
 18 seen, and I've now had some help with where they are.
 19 So if we go to page 9 {CEL00003364/9}, we can see here
 20 we have a fire that's being highlighted called
 21 Knowsley Heights. Do you see that there?
 22 A. Yes.
 23 Q. In the text above it's talking about the
 24 Knowsley Heights fire in 1991 in Liverpool. Do you see
 25 that there at the bottom of that first column?

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1 A. Yes.
 2 Q. "During this period a fire occurred in a refurbished
 3 block of residential flats in Liverpool ... suggested
 4 that a full-scale fire test method was necessary to
 5 fully understand the overall fire performance of the
 6 complete system ..."
 7 Do you see that there?
 8 A. Yes.
 9 Q. And at page 10 {CEL00003364/10}, over the page, there is
 10 a picture relating to the Garnock Court fire in Irvine.
 11 Do you see that there?
 12 A. Yes.
 13 Q. I think you told us you weren't aware of any domestic
 14 cladding fires.
 15 A. No.
 16 Q. So does that mean that if you read BR 135, you perhaps
 17 didn't look at these early introductory sections of it?
 18 A. I scanned through it. I didn't read it. I was looking
 19 for some kind of diagram that could help me out placing
 20 cavity barriers, so I would have passed over it.
 21 Q. Okay.
 22 Just finally on guidance, before I turn to some more
 23 detailed questions about the drawings on Grenfell,
 24 another piece of guidance that you do say in
 25 paragraph 50 of your statement that you consulted when

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1 you looked at cavity barriers was the CWCT standard for
 2 systemised building envelopes, part 6, "Fire
 3 performance". That was from 2008. If we can just pull
 4 that up, {CWCT0000046}. There it is. It was this
 5 standard that I think we saw was mentioned in the
 6 NBS specification, do you remember?
 7 A. Yes, yes.
 8 Q. Now, I just want to look at just one part of this on
 9 page 14 {CWCT0000046/14}, and I want to look at
 10 clause 6.4.4.2(ii), right at the bottom of that page in
 11 the black text, do you see it says there:
 12 " ii) Cavity barriers shall be provided to close the
 13 cavity around penetrations through the rainscreen for
 14 windows and doors."
 15 Do you see that there?
 16 A. Yes.
 17 Q. So consistent with the other CWCT guidance that we saw,
 18 we can see it's making clear that cavity barriers should
 19 be provided around windows?
 20 A. Yes.
 21 Q. And, again, my question is: were you aware that that was
 22 something that was said in this piece of guidance?
 23 A. Not specifically, no.
 24 Q. So if you'd been asked at the time, "Is it a requirement
 25 to have cavity barriers around windows in rainscreen

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1 systems", what would you have said?

2 A. I had a hunch that it was required.

3 Q. Yes.

4 So now a different topic. I want to ask you about

5 some of the design work on the project. We're going to

6 come to a detailed run of questions about the process

7 for approving drawings on the project.

8 A. Yes.

9 Q. So let's turn up paragraph 20 of your witness statement.

10 This is {HAR00010419/5}. I just want to read what you

11 say there in paragraph 20, you say:

12 "The key aspects of the external façade design came

13 from Studio E drawing 1279 (06) 110 Revision 00,

14 'Proposed Typical Bay Plans, Section & Elevation', dated

15 24th September 2013. This drawing showed what the

16 architects wanted to achieve, specifically, the panel

17 and window layout, location of gaps or grooves, sloping

18 cills and recess joints on the columns. It also

19 provided proportions for the external façade. It had

20 been decided, prior to my involvement in the project,

21 that the cladding was going to be cassette and that ACM

22 was the material to be used."

23 Do you see that there?

24 A. Yes.

25 Q. Can we just turn up that drawing. This is

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1 {HAR00010447}. If we can just blow that up a little.

2 So this is that drawing.

3 A. Yeah.

4 Q. And earlier in your evidence you said that the

5 information you got from Studio E was very detailed.

6 A. Yes.

7 Q. Is that what you mean by something like this?

8 A. Yes.

9 Q. You regarded this as very detailed, did you?

10 A. Yes.

11 Q. I would suggest that this isn't in fact very detailed,

12 and that, on a project like this, you ought to have had

13 drawings, including 1:5 drawings, showing, for example,

14 the detailing around the window.

15 A. Oh, you're dead right, but it was uncommon for that

16 level of detail to come out of an architect.

17 Q. I see. So is it your evidence that, yes, it would have

18 been best practice for the architect to be providing you

19 with something more detailed --

20 A. Yes.

21 Q. -- but compared to what you often got in other projects,

22 this was actually quite good; is that what you're

23 saying?

24 A. Yes, definitely. Yes. Yes, if you zoomed in -- on

25 a pdf you can zoom in and you can see a considerable

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1 amount of detail.

2 Q. Now, if we zoom in on the "Proposed Section - Typical

3 Bay" -- actually, sorry, we are going to need the

4 offline version of this, I should have said that. It's

5 my fault.

6 There we go. So if I can zoom in on the top

7 right-hand "Proposed ... Typical Bay".

8 A. Yes.

9 Q. Is that the offline version? My memory is we have

10 a better ... aha, sorry.

11 (Pause)

12 What I was wanting to show you -- maybe I'll just

13 explain while we're waiting -- in the offline version

14 you should be able to see in the labels on the

15 right-hand side, annotated H92, it says zinc cladding in

16 these drawings.

17 A. Yes.

18 Q. Do you remember noticing that?

19 A. Yes, but I was told we were not using zinc as per the

20 drawing; it was to be ACM.

21 Q. I see. So does that mean that didn't affect your work

22 in any way; you just carried on designing but with

23 a different material?

24 A. That's correct.

25 Q. I see.

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1 Can we now then look at {HAR00010423/3}. This is

2 an email from you dated 22 August 2014, so ten days

3 after you'd been appointed on the project. It's to

4 Simon Lawrence at Rydon, copied in to

5 Daniel Anketell-Jones, Neil Crawford and Bruce Sounes,

6 and you say:

7 "Simon,

8 "Please find attached some preliminary drawings to

9 prove the basics of design & set out, prior to us

10 producing a full design package.

11 "It would be useful for us to discuss these

12 principles at our meeting on Tuesday morning."

13 Do you see that there?

14 A. Yes.

15 Q. Can you just help us as to what you meant by "prove the

16 basics of design & set out", what did that mean?

17 A. Things like the depth of cladding zone, the placement of

18 windows, the size of the window relative to the opening

19 in the wall, and joints in the cladding maybe. Without

20 seeing the actual drawings that were attached I couldn't

21 be sure, but it's so that we could do some full design

22 on the main carrier angles, which were going to be the

23 long lead time items.

24 Q. I see, yes.

25 A. So if you say, "Yes, this is roughly it", then we could

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1 develop those as a point of urgency.
 2 Q. I see. And cavity barriers weren't on those basic
 3 drawings, were they?
 4 A. No, no.
 5 Q. Would it be usual to leave those items until much later?
 6 A. They weren't part of the lead time risk.
 7 Q. I see. So was your design and the progress of your
 8 design to some extent driven by the lead times for
 9 fabrication of the components?
 10 A. Definitely, yes.
 11 Q. And would that be normal in your experience on
 12 a project?
 13 A. Yes, certainly on a large project, yes.
 14 Q. Can we also then turn to another email around this time,
 15 {HAR00010417}. This is an email from you, this time to
 16 Daniel Anketell-Jones, 29 August 2014, and what you
 17 appear to be doing in this -- you've attached certain
 18 drawings. You appear in this email to be asking him to
 19 look at certain drawings. You say in the second
 20 sentence:
 21 "The only drawings that really need your
 22 consideration are ..."
 23 And then you've given some explanation with some
 24 detail about what you want him to look at. Do you see
 25 that there?

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1 A. Yes.
 2 Q. And then after 305, two-thirds of the way down there,
 3 you say:
 4 "I just want to get these basic principles wrapped
 5 up before steaming into the rest of the detailing."
 6 Do you see that there?
 7 A. Yes.
 8 Q. So is it right that at this stage we can see you working
 9 with Daniel Anketell-Jones' assistance and supervision
 10 in order to get the basic principles of the detailed
 11 design right?
 12 A. Yes, yes.
 13 Q. And would establishing these basic principles ever
 14 extend to any discussion of the composition of the
 15 cladding system and its compliance with the Building
 16 Regulations and other relevant guidance?
 17 A. Not from me to him, no.
 18 Q. But from him down to you, would you anticipate that
 19 there might be comments back from Daniel which would
 20 pick up issues relating to the Building Regulations or
 21 relevant guidance?
 22 A. If he felt there was obvious departure from compliance,
 23 then I'm sure he would, yes.
 24 Q. And you would have expected him to have come back to
 25 you?

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1 A. Yes, yes.
 2 Q. Yes.
 3 Now, the process for approving or signing off on
 4 drawings, can you just explain to us in general terms
 5 the process by which drawings were issued by you and
 6 then checked and signed off by either Studio E or Rydon?
 7 Can you assist us with that?
 8 A. Okay, well, normally drawings -- the first issue of
 9 drawings would be developed round the table with the
 10 Harley design team, the technical team. I would go
 11 away, I would produce those drawings, and then they
 12 would be issued to Rydons and also to the architect for
 13 comment, they would be copied in to the rest of the team
 14 at Harley for comment at their leisure, and then we
 15 would expect a response from Rydons or from the
 16 architect giving us marked-up drawings with their full
 17 comments.
 18 Q. Now, what did you expect the architect to be doing when
 19 drawings were issued to the architect during that
 20 process?
 21 A. Check everything, everything for design intent,
 22 compliance. It's his design. We need to be complying
 23 to his design.
 24 Q. So you expect the whole thing to be being checked by the
 25 architect?

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1 A. That's right, yes.
 2 Q. And when the architect comes back -- and we'll look in
 3 a moment at the stamp that this architect was using --
 4 A. Yes.
 5 Q. -- but if you came back and there were no comments, what
 6 did you think that meant in practice?
 7 A. It's fully approved.
 8 Q. Fully approved?
 9 A. Yes.
 10 Q. Approved for construction?
 11 A. Yes.
 12 Q. Would there be a separate procedure with Rydon, the
 13 building contractor, in terms of them approving the
 14 drawing?
 15 A. No. No. Sometimes they'd make a comment, but that was
 16 very rare. I think Studio E were working as their agent
 17 as far as comments on drawings.
 18 Q. But would you agree with me that Studio E as
 19 an architect couldn't be approving drawings for
 20 construction; it could only be the main contractor
 21 approving for construction?
 22 A. That's a contractual point between Studio E and Rydons.
 23 Q. I see.
 24 As far as you were concerned, if you got approval by
 25 the architect, was there a need to go through a separate

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1 checking process with Rydon?
 2 A. No, because all the drawings were issued through Rydon's
 3 and copied to the architect.
 4 Q. I see, yes.
 5 Now, let's look at an example and just follow
 6 through some drawings. If you can bear with me, it's
 7 a bit fiddly, this.
 8 A. That's okay.
 9 Q. If we can turn to {SEA00012756}. This is actually
 10 an email to begin with. If we look at the email at the
 11 bottom of page 1 and over on to page 2 {SEA00012756/2},
 12 we can see that you send a drawing at 11.04 to
 13 Simon Lawrence. We see Simon's name at the bottom
 14 there. Can you see that?
 15 A. Yes.
 16 Q. Then over on the top of the next page:
 17 "Please find attached revised type 10 windows, now
 18 with symmetry as requested.
 19 "Please approve and forward your official
 20 instruction for us so as we can proceed with remakes of
 21 those in manufacture."
 22 Do you see that there?
 23 A. Yes.
 24 Q. So in this example, you are addressing the email to
 25 Simon Lawrence at Rydon --

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1 A. Yes.
 2 Q. -- and asking for his approval. You copied it in to
 3 Neil Crawford and others; yes?
 4 A. Yes, just bear in mind this isn't the normal route for
 5 comments.
 6 Q. Yes, that's what I'm going to ask you in a moment,
 7 whether this was an exceptional case.
 8 A. Yes.
 9 Q. Okay. Let's follow this through --
 10 A. Sure.
 11 Q. -- but I take the point.
 12 So if we can go up the email chain on page 1
 13 {SEA00012756/1} now, we can see that Neil Crawford then
 14 responds:
 15 "Hi Kevin
 16 "Please see attached comment."
 17 Do you see that there?
 18 A. Yes.
 19 Q. So let's just turn to what Neil Crawford then attaches.
 20 This is at {SEA00003093}. So on this drawing here,
 21 we've got some red annotations.
 22 To your understanding, was that Mr Crawford's
 23 handwriting there?
 24 A. Yes.
 25 Q. He's put:

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1 "Better to hinge this way as per sketch of email
 2 13/02/15."
 3 Do you see that there?
 4 A. Yes.
 5 Q. We've got the Studio E architect's stamp --
 6 A. Yes.
 7 Q. -- on the right-hand side there. Do you see that there?
 8 A. Yes, yes, status B.
 9 Q. He's given it status B, which we think reads:
 10 "Conforms to design intent subject to incorporation
 11 of comments. Revise and resubmit for category A
 12 status."
 13 Do you see that there?
 14 A. Yes.
 15 Q. Now, was it your understanding that if the drawings had
 16 that category B status, they did have to be resubmitted
 17 after incorporation of Mr Crawford's comments?
 18 A. Not immediately. I think what is meant by status B is
 19 you can read this drawing as a status A as long as you
 20 incorporate all of the comments that he's put on that
 21 drawing.
 22 Q. Where did you get that from? Who told you that that's
 23 how you should read status B?
 24 A. That is how the industry actually reads that. Have you
 25 got a more legible copy of that stamp?

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1 Q. I'm sure we can find one.
 2 A. Because I think it does say something to that --
 3 Q. We think it says:
 4 "Conforms to design intent subject to incorporation
 5 of comments."
 6 And then it says:
 7 "Revise and resubmit for category A status."
 8 Do you see that in the second -- it's got two
 9 sentences.
 10 A. Yes.
 11 Q. So that's why I'm asking you why you didn't understand
 12 that you had to revise and resubmit it and get
 13 category A status. Because I think what you're saying
 14 now and I think what you're saying in your witness
 15 statement is that, in practice, when you've got the B,
 16 you interpreted that as the green light to go --
 17 A. That's correct, yes.
 18 Q. -- provided you incorporated the comments?
 19 A. Yes.
 20 SIR MARTIN MOORE-BICK: Ms Grange, I'm sorry to interrupt
 21 you, I think we may have a message about the transcript.
 22 MS GRANGE: Oh, I'm sorry. Apparently the external
 23 transcript has stopped working.
 24 SIR MARTIN MOORE-BICK: My first question is: is yours
 25 working?

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1 MS GRANGE: Mine is working.
 2 SIR MARTIN MOORE-BICK: Yes, mine is running too. Are
 3 counsel's running?
 4 I wonder if we could look into this because it's
 5 quite important for the people who are not in the room.
 6 (Pause)
 7 Ms Grange, I'm rather disinclined to keep going
 8 regardless.
 9 MS GRANGE: Shall we take a short break?
 10 SIR MARTIN MOORE-BICK: I think that might be better.
 11 Mr Lamb, I'm sorry about this.
 12 THE WITNESS: That's fine.
 13 SIR MARTIN MOORE-BICK: Very occasional technical glitch, as
 14 I'm sure you'll understand.
 15 MS GRANGE: We're doing fine for time, so I'm not troubled
 16 at all.
 17 SIR MARTIN MOORE-BICK: Yes, I think what we'll do is have
 18 a short break now until it can be sorted out, so would
 19 you go with the usher, please, and we'll tell you when
 20 it's fixed.
 21 THE WITNESS: Of course, yes.
 22 SIR MARTIN MOORE-BICK: All right, thank you.
 23 (Pause)
 24 We'll rise and someone will no doubt come and tell
 25 us as soon as it's working again.

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1 Thank you very much.
 2 (3.53 pm)
 3 (A short break)
 4 (4.05 pm)
 5 SIR MARTIN MOORE-BICK: Well, I understand that the problem
 6 has been resolved so could you ask Mr Lamb to come back
 7 in, please, and we'll see if we can get going again.
 8 (Pause)
 9 Well, Mr Lamb, sorry about that. Anyway, I think
 10 we're ready to go again.
 11 THE WITNESS: Right.
 12 SIR MARTIN MOORE-BICK: Yes, Ms Grange.
 13 MS GRANGE: Yes, so we were looking at this drawing which
 14 Studio E have marked status B there, and I want to ask
 15 you now about the "Approved for construction", the black
 16 stamp that we see underneath the architect's stamp.
 17 A. Yes.
 18 Q. Do you see that there? Who would apply that stamp?
 19 A. I would.
 20 Q. And can you explain why you've stamped it "Approved for
 21 construction" when you've issued it, but we can see that
 22 Studio E have then commented on it and marked it
 23 status B?
 24 A. Because the drawing was issued for construction at
 25 revision E. Consequently, the architect decided to make

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1 further changes.
 2 Q. I see. But are you saying that you'd had a status A
 3 before revision E --
 4 A. Yes, yes.
 5 Q. -- and you'd assumed you'd got to the end of the chain,
 6 and then you actually get a status B?
 7 A. That's correct, yes.
 8 Q. I see. We'll check that.
 9 So are you clear that you wouldn't ever apply that
 10 "Approved for construction" unless you'd got a status A?
 11 A. Not intentionally, no.
 12 Q. Not intentionally?
 13 A. No.
 14 Q. Is it possible that on the Grenfell project we might see
 15 some examples of where you put "Approved for
 16 construction" but it hasn't got status A --
 17 A. I think I've spotted two drawings so far that actually
 18 you're right on, yes.
 19 Q. Yes, okay.
 20 And when it did get the "Approved for construction",
 21 what was meant by that?
 22 A. It means that Harley can proceed with manufacture of
 23 this item.
 24 Q. I see. I think we'll see an example in a moment,
 25 sometimes what we see is a dotted stamp instead --

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1 A. Yes.
 2 Q. -- with "Issued for approval".
 3 A. Correct, yes.
 4 Q. Was that the prior stage to this?
 5 A. Yes, yes, exactly, yes.
 6 Q. Were those the only two stamps you were using on the
 7 Grenfell project?
 8 A. Yes.
 9 Q. And the stamp "Issued for approval", approval by who?
 10 A. The architect.
 11 Q. Right, yes.
 12 SIR MARTIN MOORE-BICK: Mr Lamb, I can understand why you'd
 13 use a stamp saying "Issued for approval" because you're
 14 sending it out for approval or at least for
 15 consideration.
 16 A. Yes, yes.
 17 SIR MARTIN MOORE-BICK: But why is it your role to stamp it
 18 "Approved for construction" and not Harley's role?
 19 A. Because I'm the one being addressed with the comments
 20 from the architect.
 21 SIR MARTIN MOORE-BICK: Oh, I see. Yes, thank you.
 22 MS GRANGE: Now, we were following the story of this drawing
 23 through. If we go back to {SEA00012758} -- sorry, not
 24 back, this is a new document. This is a further email
 25 from you. Again, it's dated 17 February 2015, and it's

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1 you to Simon Lawrence, but ccing in Neil Crawford and
 2 others.
 3 A. Yes.
 4 Q. You say:
 5 "Simon,
 6 "The window mods are now approved by Neil (as
 7 attached), so all we need now is your official go ahead
 8 to proceed."
 9 Do you see that there?
 10 A. Yes.
 11 Q. So you do seem to be addressing this to Simon Lawrence
 12 and asking for his official go-ahead to proceed; do you
 13 see that there?
 14 A. That's right, but as mentioned before, this isn't
 15 normal. This particular drawing was approved for
 16 construction at revision E, and those items went into
 17 manufacture.
 18 Q. Right.
 19 A. So for the architect to make changes at this late stage
 20 meant potential costing or programme delays, so that's
 21 why it was more important to address it to Simon. He
 22 was the one that had to authorise costs and programme
 23 delays.
 24 Q. Yes. That's very helpful.
 25 I think the transcript is playing up again.

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1 SIR MARTIN MOORE-BICK: I was just about to tell you that.
 2 MS GRANGE: Yes. Mine is flashing and keeps coming back and
 3 forth.
 4 SIR MARTIN MOORE-BICK: Okay.
 5 MS GRANGE: Mr Chairman, we're doing fine for time so I'm
 6 happy to say we could stop today and pick up again
 7 tomorrow, rather than having another break and coming
 8 back.
 9 SIR MARTIN MOORE-BICK: Yes. Are you confident that you can
 10 finish Mr Lamb's evidence tomorrow if we stop now?
 11 MS GRANGE: Yes, I am.
 12 SIR MARTIN MOORE-BICK: Well, Mr Lamb, it may be that this
 13 is a case for an early afternoon, because my transcript
 14 is playing up and I think other people's are as well.
 15 So I think we'll take the opportunity to call a halt for
 16 today. I have to ask you to come back for some more
 17 questions tomorrow. We'll sit at 10 o'clock for that
 18 purpose.
 19 THE WITNESS: Okay.
 20 SIR MARTIN MOORE-BICK: Again, please don't talk to anyone
 21 overnight about your evidence or anything to do with
 22 that.
 23 THE WITNESS: Yes, I understand that.
 24 SIR MARTIN MOORE-BICK: All right?
 25 THE WITNESS: No problem.

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1 SIR MARTIN MOORE-BICK: We look forward to seeing you
 2 tomorrow morning.
 3 Thank you very much, would you go with the usher.
 4 (Pause)
 5 Well, Ms Grange, we'll call it a day there.
 6 MS GRANGE: Thank you.
 7 SIR MARTIN MOORE-BICK: And resume at 10 o'clock tomorrow.
 8 MS GRANGE: Thank you very much.
 9 SIR MARTIN MOORE-BICK: Thank you very much.
 10 (4.11 pm)
 11 (The hearing adjourned until 10 am
 12 on Thursday, 17 September 2020)
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