

OPUS 2

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Grenfell Tower Inquiry

Day 12

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1 Wednesday, 11 March 2020
 2 (10.00 am)
 3 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to
 4 today's hearing, at which we're going to hear some more
 5 evidence from one of the architects at Studio E who was
 6 involved in the refurbishment of the tower.

7 Before we do that, can I just mention a topic which
 8 is on everyone's lips almost, and certainly in most
 9 people's minds, namely the coronavirus, because one or
 10 two people have asked us what we're doing about it.
 11 Well, there is not a lot we can do about it, of course,
 12 in one sense, but it is something we are monitoring very
 13 carefully.

14 I think we all need to understand that we have
 15 a personal responsibility to try to avoid spreading
 16 infection, and therefore I will repeat what I said on
 17 Monday morning, that if anyone has concerns about their
 18 own health, then please don't come in to the Inquiry;
 19 you can watch it remotely and take a reasonable part by
 20 doing that.

21 We are keeping abreast very carefully of the latest
 22 advice from the Government and the National Health
 23 Service. Hand sanitisers are available in the public
 24 areas. We will continue to keep the position under
 25 review and we will advise you if and when the time comes

1

1 when it's necessary to take any further steps. But, for
 2 the moment, please just accept that we are watching the
 3 situation very carefully, and we rely on all of you for
 4 your support in the way that I have indicated.

5 Well, having said that, we are now going to hear
 6 from the next witness.

7 MR MILLETT: Mr Tomas Rek, Mr Chairman.

8 MR TOMAS REK (affirmed)

9 SIR MARTIN MOORE-BICK: Thank you very much, Mr Rek. Sit
 10 down and make yourself comfortable.

11 THE WITNESS: Thank you.

12 SIR MARTIN MOORE-BICK: All right?

13 Yes, Mr Millett.

14 Questions from COUNSEL TO THE INQUIRY

15 MR MILLETT: Mr Chairman.

16 Mr Rek, good morning.

17 A. Good morning.

18 Q. Can I start, please, by asking you to give the Inquiry
 19 your full name.

20 A. My name is Tomas Rek.

21 Q. Thank you very much for coming to the Inquiry and
 22 helping us with our investigations. We appreciate it.

23 I'm going to be asking you some questions today. If
 24 you have any difficulty understanding the questions that
 25 I'm asking you, or you would like the question put in

2

1 a different way, please just say.

2 Could I also ask you, please, to keep your voice up
 3 so that the transcribers, who are sitting to your right,
 4 can hear you and get down accurately your answers.

5 A. Sure.

6 Q. You have made a witness statement for the Inquiry, and
 7 it should be in a folder on the desk in front of you
 8 there, and it will also appear on the screen in front of
 9 you. You will also see documents that I refer to come
 10 up on the screen in front of you, and we will be looking
 11 at those together.

12 A. Mm-hm.

13 Q. If you look at the statement, please, it's
 14 {SEA00014278}. Can I ask you to start by going to
 15 page 35 {SEA00014278/35}, please.

16 A. Yes.

17 Q. You will see that it's dated 9 November 2018, above
 18 which is your name, Tomas Rek, and a signature above
 19 that. Is that your signature?

20 A. Yes, it is.

21 Q. Thank you.

22 Now, you have also provided exhibit TR/1. Can we
 23 please bring that up. It is {SEA00014277}, and that's
 24 the front page of it. There are documents which follow
 25 that, and it's some nine pages long.

3

1 Just scrolling down that, please, can you confirm
 2 that that is your exhibit to your witness statement?

3 A. Yes.

4 Q. Thank you.

5 Have you read this witness statement recently?

6 A. Yes.

7 Q. Can you confirm that its contents are true?

8 A. Yes.

9 Q. Have you discussed the evidence that you're going to
 10 give today with anybody before coming here this morning?

11 A. I would be in contact with the lawyers, RPC.

12 Q. Right.

13 A. And, yeah, Bruce, occasional email.

14 Q. Right. Have you discussed the evidence that you're
 15 going to give, the answers that you may give to my
 16 questions?

17 A. No.

18 Q. Right.

19 Now, you worked on the Grenfell Tower project from
 20 September 2013 to December 2013, so about four months;
 21 is that right?

22 A. Yeah, less.

23 Q. Less?

24 A. Three and a half.

25 Q. Right. I'm only going to ask you questions about your

4

1 direct involvement during those months and what you came
 2 to know about and do on the project during that time.
 3 Can I start, then, by asking you some questions
 4 about your qualifications and your experience.
 5 You were employed, I think, by Studio E LLP between
 6 December 2011 and December 2013; is that right?
 7 A. That's correct.
 8 Q. And in December 2013, you were made redundant, I think.
 9 A. That's correct.
 10 Q. Do you know how many people were made redundant at that
 11 time?
 12 A. A handful. I don't know, five. I don't recall the
 13 exact number.
 14 Q. You now work, I think, as an architect in Copenhagen;
 15 yes?
 16 A. Yes.
 17 Q. When you were working for Studio E LLP, were you
 18 a registered architect?
 19 A. Yes.
 20 Q. Were you a member of RIBA?
 21 A. No.
 22 Q. Now, in paragraph 7 of your witness statement, if we can
 23 just have that up on the screen, please -- you will find
 24 that at page 3 {SEA00014278/3}, you see that you say
 25 there that you obtained a degree in architecture from

5

1 the University of Technology in Brno in the
 2 Czech Republic in 2005, and then you qualified as
 3 an engineer architect in architecture and urban
 4 planning. You say:
 5 "I have practised as an architect for 8 years."
 6 Is that eight years as at the date of the statement,
 7 eight years as at the date of the fire, or eight years
 8 as at the date of your involvement in the Grenfell Tower
 9 project?
 10 (Pause)
 11 A. Must have been at the date of my involvement, 2013.
 12 Q. Right.
 13 A. Yes.
 14 Q. Okay.
 15 Looking at the training you had at the University of
 16 Technology in the Czech Republic, did you learn or did
 17 your course cover technical aspects of fire safety in
 18 and around buildings?
 19 A. I do not recall that.
 20 Q. Do you recall whether it covered fire spread, internal
 21 or external fire spread?
 22 A. I don't think so.
 23 Q. So would it follow that you didn't learn anything as
 24 part of your formal training on façade materials which
 25 would be used in an overcladding system?

6

1 A. No.
 2 Q. Can I ask perhaps what might sound a silly question in
 3 the light of that, but presumably you didn't cover the
 4 requirements of the Building Regulations in England and
 5 Wales?
 6 A. Of course not.
 7 Q. No.
 8 The word "engineer architect" is a phrase you use in
 9 paragraph 7 of your statement. Is that a specialism
 10 within architecture?
 11 A. That's how all architects are called in Czech Republic
 12 when they finish education as an architect. It's just
 13 a common term.
 14 Q. I see, okay.
 15 Now, you say in your witness statement at
 16 paragraph 8, which you will also see on page 3, that you
 17 practised as an architect for eight years. We have been
 18 through the eight years.
 19 Prior to working for Studio E, where did you work?
 20 A. It would have been three different practices in
 21 London -- well, one of them was in Enfield.
 22 Q. I see. In what capacity did you work in each of those
 23 three practices, do you remember?
 24 A. Well, I would start as an architectural assistant.
 25 Q. Right.

7

1 A. Because I didn't do my part 3 until 2010.
 2 Q. Right.
 3 A. So I would have become a registered architect 2010,
 4 which is a year before I started at Studio E.
 5 Q. I see. So you were an architectural assistant
 6 throughout the period you worked for those three
 7 practices?
 8 A. I would have been an architect in the last practice.
 9 Q. I see, okay.
 10 A. Because I would have had the qualification.
 11 Q. So after 2010?
 12 A. Yes.
 13 Q. Yes, I see.
 14 In any of those practices, did you gain any
 15 experience on refurbishing an existing high-rise
 16 residential tower block?
 17 A. No.
 18 Q. Which sectors did you generally work in, in those three
 19 practices?
 20 A. Mainly educational.
 21 Q. Now, you told us that you completed the RIBA part 3 in
 22 2010. That was in London, was it?
 23 A. Correct.
 24 Q. Would I be right in thinking that, in doing that, you
 25 covered the requirements of the Building Regulations?

8

1 A. Yes.
 2 Q. As an architect and an employee of Studio E, were you
 3 required to undertake continuing professional
 4 development, or CPD?
 5 A. It was voluntarily, and I did.
 6 Q. Did you keep any records of your CPD?
 7 A. I would just keep the certificates which we would
 8 receive after the seminars in a folder, like a paper
 9 copy.
 10 Q. I see. Did you keep those records yourself, or did
 11 Studio E keep them?
 12 A. I can't recall. I might have taken them with me when
 13 I finished my employment at Studio E, but I don't have
 14 them anymore.
 15 Q. Do you specifically recall keeping your CPD records
 16 during the years 2012 and 2013?
 17 A. I don't specifically recall, but I think that's what
 18 I did, because I thought I might use them in the future
 19 as a reference --
 20 Q. I see.
 21 A. -- if I wanted to be registered RIBA or something.
 22 Q. I see.
 23 Now, I'm going to turn to your role at Studio E and
 24 the briefing that you received on the Grenfell Tower
 25 project.

9

1 A. Mm-hm.
 2 Q. You worked as a project architect during your time at
 3 Studio E, didn't you?
 4 A. Correct.
 5 Q. You reported at all times to Mr Sounes; is that right?
 6 A. No. I was sitting in the other side of the office, so
 7 I was reporting to another associate, and another
 8 partner, when I was working on that Bolingbroke Academy.
 9 Q. I see.
 10 What was your formal job title or job status as at
 11 2013 at Studio E?
 12 A. I was a project architect --
 13 Q. Project architect?
 14 A. -- on the academy.
 15 Q. When you came into the Grenfell Tower project, would
 16 I be right in thinking that you were reporting to
 17 Mr Sounes?
 18 A. Correct.
 19 Q. So can we take it that he was supervising your work on
 20 the project?
 21 A. Yes.
 22 Q. Now, at this time, September 2013, which is when I think
 23 you came into the Grenfell Tower project, am I right in
 24 thinking that the project had been developed to RIBA
 25 stage D, design development?

10

1 A. Yes.
 2 Q. Can we turn up your statement, {SEA00014278/5}, so two
 3 pages on from where we are. I would like you, please,
 4 to look at paragraph 14. You say there:
 5 "I was tasked by Bruce with developing the NBS
 6 Specification and drawings further so that the NBS
 7 Specification, architectural drawings and the tender
 8 documents could be completed and issued as part of the
 9 pack of documents for tenderers."
 10 Do you see that?
 11 A. Yes.
 12 Q. You say:
 13 "Usually, the successful tenderer (or specialist
 14 subcontractor for the successful tenderer) would use
 15 these documents as a starting point for their further
 16 detailed design development."
 17 So, just to be clear, your role at the start of your
 18 involvement on the Grenfell Tower project was to develop
 19 the NBS specification and drawings, as you say?
 20 A. Yes.
 21 Q. Just to be clear about that.
 22 Can I ask you, how complete was the NBS
 23 specification at the time when you first started
 24 developing it?
 25 A. Something I don't recall, and unfortunately I wasn't

11

1 able to retrieve any evidence of the draft statement of
 2 the specification when I took it over.
 3 Q. I see. When you say the draft statement, you mean the
 4 NBS?
 5 A. The NBS, yeah.
 6 Q. I see.
 7 Just doing the best you can to recall -- and maybe
 8 you can't -- do you remember whether Mr Sounes or
 9 anybody else at Studio E had already done some initial
 10 work on the NBS specification --
 11 A. Yes.
 12 Q. -- or was it completely blank?
 13 A. It wasn't completely blank.
 14 Q. Again, I'm sorry to ask you, but doing the best you can,
 15 do you remember which parts of the NBS specification had
 16 already been completed before you started working on it?
 17 A. No, I can't recall that.
 18 Q. Okay, all right.
 19 Now, can I ask you to go back a page in your
 20 statement to paragraph 10 {SEA00014278/4}. You say
 21 there, if you look three lines up from the bottom:
 22 "... my involvement in the Project was for me, to my
 23 understanding, filling the gap until another project
 24 came up. I reported to Bruce Sounes at SELLP. Bruce
 25 was my supervisor at SELLP."

12

1 Just looking at your evidence there about the gap,
 2 did you believe that the purpose of your involvement was
 3 to keep you occupied until another project came up?
 4 A. Yes.
 5 Q. What caused you to think that?
 6 A. A brief chat with Andrzej and Bruce at the time of the
 7 redundancies.
 8 Q. Yes, okay. At the time of the redundancies -- you were
 9 made redundant in December, but we know you started
 10 working in September 2013.
 11 A. Yes.
 12 Q. So does that mean that there were redundancies in
 13 September or perhaps earlier in 2013?
 14 A. I don't recall exactly, but it's a long process, which
 15 takes over a couple of months.
 16 Q. Right.
 17 Just to be a little bit more focused, the brief chat
 18 with Andrzej and Bruce which caused you to think that
 19 you were getting involved in the Grenfell Tower project
 20 to keep you occupied until another project came up, that
 21 chat, did it occur prior to you working on the NBS spec
 22 in September, or was it another time?
 23 (Pause)
 24 A. I don't remember.
 25 Q. Right.

13

1 Was the gap that you're talking about a staffing gap
 2 that you were filling, or a work gap; in other words,
 3 you didn't have enough work to do, so you were given
 4 this?
 5 A. Well, I was finished with my engagement at the academy.
 6 I don't think there was another assignment other than
 7 Grenfell for me.
 8 Q. Right. I see.
 9 When you started working on the Grenfell Tower
 10 project, did you know that you would only be involved in
 11 it for three or four months?
 12 A. No, I didn't.
 13 Q. Right.
 14 Now, if you look at paragraph 12 of your statement,
 15 please, which is at page 4 {SEA00014278/4}, just two
 16 paragraphs below 10, which we're looking at, you say
 17 there:
 18 "I was first briefed on the project on
 19 18 September 2013 by Garry Stewart, as Bruce Sounes had
 20 been called into meetings that day, and I started by
 21 reading the Stage D documents and reviewing the draft
 22 drawings and sketches."
 23 Do you see that?
 24 A. Mm-hm.
 25 Q. Do you remember what Mr Stewart told you to do?

14

1 A. Exactly what's written below: reading the stage D report
 2 and looking at the drawings available to me at the time.
 3 Q. Right. Did he direct you to any particular documents,
 4 do you remember?
 5 A. No, just the stage D report.
 6 Q. I think it's also right that Mr Sounes also relayed
 7 further information about the project to you on an as
 8 and when required basis.
 9 A. Yes.
 10 Q. Do you remember him briefing you about the aesthetics of
 11 the façade?
 12 A. Yes.
 13 Q. Do you remember when that was?
 14 A. It would have been at the outset.
 15 Q. At the outset?
 16 A. Yeah.
 17 Q. Do you remember whether, at the outset, there was any
 18 discussion about fire safety?
 19 A. I do not recall that.
 20 Q. Was there any discussion after the outset about
 21 fire safety?
 22 A. Do you mean during the duration of those three months?
 23 Q. Yes.
 24 (Pause)
 25 A. I believe we would have been discussing the cavity

15

1 barriers.
 2 Q. The cavity barriers, all right. We will come to look at
 3 those later.
 4 Can I turn to a different topic, which is your
 5 personal and professional knowledge of the
 6 Building Regulations and Approved Document B.
 7 At the time of the project -- so last quarter of
 8 2013 -- how familiar were you with the requirements of
 9 schedule 1, parts B3 and B4 of the Building Regulations?
 10 A. I think, to a certain extent, I would have been aware of
 11 those parts, but I probably ... I don't know whether
 12 I would have read them back-to-back.
 13 Q. Right.
 14 Same question: how familiar were you in respect of
 15 the provisions of Approved Document B concerning
 16 schedule 1, part B4.(1) of the Building Regulations,
 17 "External fire spread"?
 18 A. I know I came across that subject in a previous project,
 19 so I was aware of it.
 20 Q. Can you tell us what that project was?
 21 A. It was a secondary school in east London.
 22 Q. Right, so not a high-rise building?
 23 A. No, that was four storeys.
 24 Q. What did you learn about Approved Document B,
 25 schedule 1, part B4 on that project?

16

1 A. I think on that project the building was quite close to
 2 existing terraced houses and we were looking at the
 3 relevant boundary and the proximity, and one part of the
 4 façade needed to be class 0, I think.
 5 Q. I see, class 0.
 6 You have just mentioned a façade. Was there
 7 a façade on that building?
 8 A. I think it was a -- that part was rendered or brick,
 9 I can't remember. It was a rendered and brick building.
 10 Q. Did your involvement on that project involve input into
 11 external wall construction?
 12 A. Yeah.
 13 Q. Was there any consideration of insulation or insulation
 14 products in that external wall construction?
 15 A. Must have been.
 16 Q. Do you remember? You say, "Must have been". Why must
 17 there have been?
 18 A. We ... there was a thermal insulation and it would have
 19 been specified, so ...
 20 Q. You say it was a rendered and brick building, so does
 21 that mean there were in panels forming the exterior
 22 surface?
 23 A. No -- yeah, it wasn't a rainscreen --
 24 Q. Not a rainscreen cladding?
 25 A. No.

17

1 Q. Right.
 2 What did you learn from that project about the
 3 combustibility requirements contained within ADB,
 4 section 12, in relation to external walls?
 5 A. I think back then we satisfied ourselves with just
 6 confirming that the elements, the surface of the
 7 façade -- I think it was that the render was class 0 and
 8 therefore compliant.
 9 Q. What does class 0 mean to you?
 10 A. External spread of flame.
 11 Q. What is class 0, or what was class 0? I think is or
 12 was.
 13 A. That the surface of the material applied to the façade
 14 wouldn't encourage spread of flame or it wouldn't
 15 burn --
 16 Q. Right.
 17 A. -- on the surface, yeah.
 18 Q. How did you go about satisfying yourself on that project
 19 that the surface of the building on that project was
 20 class 0?
 21 A. I think we would look up the datasheets of the material,
 22 BBA certificates.
 23 Q. Right, okay.
 24 Were you familiar then or did you become familiar as
 25 a result of that project with BBA certificates and how

18

1 to read them, how to interpret them?
 2 A. Erm ... I knew they existed, and that they were
 3 certificates explaining the behaviour of materials on
 4 different aspects, not just fire.
 5 Q. Do you remember reading the relevant BBA certificate for
 6 that project?
 7 A. I don't remember that.
 8 Q. Do you remember there being discussion within Studio E
 9 of the need to look at that certificate when assessing
 10 whether or not the exterior complied with the
 11 requirements or guidance in Approved Document B?
 12 A. I don't recall that.
 13 Q. Okay.
 14 Can I just ask you this: were you, at the time of
 15 your involvement on the Grenfell project, familiar with
 16 the guidance contained in the CWCT standard, the Centre
 17 for Window and Cladding Technology standard?
 18 A. I know a guidance existed, but I didn't read it.
 19 Q. We will come back to that.
 20 What about the BCA guidance that was issued from
 21 time to time by the BCA, the Building Control Alliance?
 22 No?
 23 A. No.
 24 Q. What about other industry standards which issued
 25 guidance from time to time about compliance with the

19

1 requirements of schedule 1, part B4 of the Building
 2 Regulations?
 3 A. No.
 4 Q. Can we look at your statement at paragraph 140, please,
 5 which you will find on page 34 {SEA00014278/34}. It's
 6 the very end of your statement, and you say there:
 7 "After I left SELLP I was involved in the design of
 8 a high-rise building where Celotex FR5000 was also
 9 specified. On that project Exova had produced a desktop
 10 study comparing the rainscreen façade cladding with
 11 Celotex's tested sample and they had concluded that it
 12 complied with BR135."
 13 Do you see that?
 14 A. Yes.
 15 Q. At the time of your involvement on the Grenfell Tower
 16 project, September to December 2013, were you familiar
 17 with the various different available routes to
 18 compliance with ADB 12.5 in relation to external wall
 19 construction?
 20 A. No, not specifically.
 21 Q. So looking at paragraph 140, let's just look at that in
 22 a bit more detail, then.
 23 You say you were involved in the design of
 24 a high-rise building; where was that building? What was
 25 it?

20

1 A. It was in Bromley.
 2 Q. What was the name of the project?
 3 A. It was called Bromley South Central. It was a mixed-use
 4 residential newly built development.
 5 Q. Which organisation were you working for when you were
 6 involved in the design of that building?
 7 A. Guy Hollaway Architects.
 8 Q. Were you involved in that aspect of the high-rise
 9 building which specified products for use in the
 10 external wall?
 11 A. Yes.
 12 Q. It was a cladding, was it?
 13 A. Yes.
 14 Q. Was it a cladding of an existing building or a new
 15 building?
 16 A. New-build.
 17 Q. Can you remember the dates of when FR5000 was specified
 18 in that project?
 19 A. No, I wouldn't remember the dates.
 20 Q. Can you remember the date or roughly the date when Exova
 21 produced the desktop study that you refer to?
 22 A. I can only guess.
 23 Q. No, I don't want you to guess. If you can't remember,
 24 you can't remember.
 25 Can you give us some parameters, though, at least.

21

1 When did you first start working on that project?
 2 A. I think it would be right at the outset, when I got
 3 employed, which would be straight after I left Studio E.
 4 Q. Okay, and when did your involvement come to an end in
 5 that later project?
 6 A. That would be May -- yeah, May 2017.
 7 Q. May 2017, okay.
 8 When Exova did the exercise of producing a desktop
 9 comparing the rainscreen façade on that project with
 10 Celotex's tested sample, was that a new approach to you?
 11 A. It was.
 12 Q. So can I take it that that wasn't an approach that you
 13 were familiar with at the time of your involvement on
 14 the Grenfell Tower project?
 15 A. No.
 16 Q. I see.
 17 When you started work on the Grenfell Tower project,
 18 were you told anything, either by Mr Sounes or
 19 Mr Stewart or anybody else, about what route to
 20 compliance with the Building Regulations, with Approved
 21 Document B, Studio E had taken in respect of the
 22 refurbishment of the façade?
 23 A. I don't recall any discussion about that.
 24 Q. Okay.
 25 Did you yourself give any consideration to

22

1 Studio E's route to compliance with ADB in that respect?
 2 A. I don't think I did.
 3 Q. Were you familiar with the requirement -- or the
 4 guidance, I should call it, perhaps -- in ADB, or rather
 5 in schedule 1, part B4, that the external walls of the
 6 building should adequately resist the spread of fire
 7 over the walls?
 8 A. I mean, my recollection is failing me a little bit.
 9 I know I was aware after Grenfell, but whether at the
 10 time of my involvement on Grenfell project, I simply
 11 don't remember.
 12 Q. Let me see if I can help you a bit with your
 13 recollection by showing you the relevant provision.
 14 {CLG00000173}. This is Approved Document B, which came
 15 into effect in April 2007, which is what you would have
 16 looked at at the time, if you had.
 17 Can I take you to page 94 {CLG00000173/94}. At
 18 page 94 you see "Guidance" at the top, and halfway down
 19 the page, "Introduction", and you can see, "External
 20 walls". Do you see that?
 21 A. Yes.
 22 Q. I think, in fact, I've taken you to the wrong page. If
 23 you go back a page {CLG00000173/93}, you will see
 24 "External fire spread", B4. Do you see it there?
 25 A. Mm-hm.

23

1 Q. "The external walls of the building shall adequately
 2 resist the spread of fire over the walls and from one
 3 building to another, having regard to the height, use
 4 and position of the building."
 5 So that was the regulation at the time.
 6 My question is: were you familiar with that at the
 7 time of your work on the Grenfell project?
 8 A. I mean, I assume since I came across, as I explained,
 9 a similar aspect on a previous project in previous
 10 employment, I must have been aware --
 11 Q. Yes.
 12 A. -- to a certain extent of external fire spread.
 13 Q. So can we take it you were aware of the principle if not
 14 the precise language in the regulation?
 15 A. Yeah.
 16 Q. Did you realise that that would require you or Studio E
 17 to consider the fire performance of each of the
 18 components of the cladding system, including the
 19 particular type of cladding panels and the insulation
 20 specified for the system?
 21 A. I don't think I knew this -- knew that at the time.
 22 Q. I see.
 23 If you turn on, please, two pages in the same
 24 document to page 95 {CLG00000173/95}, you can see
 25 paragraph 12.5, "External wall construction". Do you

24

1 see that?

2 A. Mm-hm.

3 Q. Just read that to yourself, if you would:

4 "The external envelope of a building ..."

5 Do you see that?

6 A. Yes.

7 Q. "... should not provide a medium for fire spread if it

8 is likely to be a risk to health or safety."

9 Then you see in the second paragraph underneath

10 that:

11 "External walls should either meet the guidance

12 given in paragraphs 12.6 to 12.9 or meet the performance

13 criteria given in the BRE Report ... (BR 135) for

14 cladding systems using full scale test data from

15 BS 8414-1:2002 or BS 8414-2:2005."

16 Were you familiar with those precise alternative

17 routes to compliance contained within paragraph 12.5

18 itself?

19 A. Not at the time of my involvement at Grenfell.

20 Q. Right.

21 Just taking this very quickly, then, if I can, can

22 I just ask you to look at 12.6 at the foot of page 95

23 "External surfaces":

24 "The external surfaces of walls should meet the

25 provisions in Diagram 40. Where a mixed use building

25

1 includes Assembly and Recreation Purpose Group(s)

2 accommodation, the external surfaces of walls should

3 meet the provisions in Diagram 40c."

4 Were you familiar with that provision or the

5 principle contained in it at the time of your

6 involvement?

7 A. Again, I think that refers to that diagram with six

8 different types of scenarios, and --

9 Q. It does, diagram --

10 A. -- I remember that one from the previous employment and

11 the previous project.

12 Q. Yes, I see.

13 Looking at 12.6 and the reference to diagram 40,

14 which we can look at if we need to, were you familiar

15 with the fact that it required national class 0 or

16 European class B as the surface component on buildings

17 over 18 metres?

18 A. Yeah.

19 Q. Yes.

20 Just looking on at paragraph 12.7, "Insulation

21 Materials/Products":

22 "In a building with a storey 18m or more above

23 ground level any insulation product, filler material

24 (not including gaskets, sealants and similar) etc used

25 in the external wall construction should be of limited

26

1 combustibility (see Appendix A). This restriction does

2 not apply to masonry cavity wall construction which

3 complies with Diagram 34 in Section 9."

4 Were you familiar with that principle?

5 A. Not at the time of my involvement in Grenfell. It came

6 later.

7 Q. Did you understand at the time that in the case of

8 a cladding system which incorporated material for

9 insulation which was not of limited combustibility which

10 complied with paragraph 12.7 and appendix A, the only

11 route to compliance of such a system with the

12 Building Regulations was by demonstrating that it had

13 passed an 8414 test and met the BR 135 criteria?

14 A. I didn't know that at the time.

15 Q. Or, alternatively, had a desktop system such as you came

16 across later; no?

17 A. No.

18 Q. What about a bespoke fire engineered solution as a route

19 to compliance, were you aware that that was

20 a possibility?

21 A. Again, that I learned much later.

22 Q. I see.

23 As far as you were aware at the time, were you aware

24 that the overcladding system proposed for Grenfell

25 during your time on the project was not tested itself to

27

1 BS 8414 in order to meet the BR 135 criteria?

2 A. I didn't know whether it was or wasn't.

3 Q. Okay.

4 Similarly, no holistic fire engineer report for it?

5 No? You are shaking your head --

6 A. No, no.

7 Q. I'm the person who said "no", but if you say "no", it

8 goes in the transcript as your evidence.

9 A. Yes.

10 Q. Thank you.

11 Can I now turn to the NBS specification, and I'm

12 going to ask you about this generally, first of all, and

13 ask you a little bit about the CWCT 2008 guidance.

14 Before we look at the NBS specification in any

15 detail, can you just explain to us what a specification

16 for a project like this actually is?

17 A. It's a written document either describing or prescribing

18 elements of the building and their performance.

19 Q. Could you just help us, what does it look like? If

20 I want to fill out an NBS specification, what does it

21 look like?

22 A. It's a program.

23 Q. Right. A computer program?

24 A. Computer program, and you -- there's a lot of

25 pre-written clauses you can choose to include in your

28

1 print-out or the published document, or you can write
 2 bespoke clauses. It allows both.
 3 Q. Yes.
 4 Would you agree with me that, on a project like
 5 Grenfell Tower, the specification, which formed part of
 6 the employer's requirements, was a particularly
 7 important document?
 8 A. Yes.
 9 Q. Now, let's look at the NBS specification for
 10 Grenfell Tower. It's {SEA00000169}, please. Now, this
 11 version is dated 30 January 2014. This is the final
 12 version, and I appreciate, Mr Rek, that you had left by
 13 this point, but there were two earlier editions of this
 14 document in November 2014.
 15 A. Yes.
 16 Q. We can see those, but we can work from this one because
 17 it's the final edition.
 18 Generally, would you agree that it's on the basis of
 19 the content of this specification that a tendering
 20 company can undertake an assessment of how much it would
 21 cost to undertake a project?
 22 A. Yes.
 23 Q. And ultimately whether to put in a bid and, if so, how
 24 much.
 25 A. Yes.

29

1 Q. It's possible -- and it sounds like a simple question,
 2 but it's possible, isn't it, to have different types of
 3 specifications?
 4 A. Yeah, if you imply you can prescribe or describe certain
 5 elements, yes.
 6 Q. And, indeed, Ms Grange explored those with Mr Sounes,
 7 but let me just see if I can get your evidence on it.
 8 Would you agree that there's a specification that
 9 you could ask for in the NBS spec which indicated
 10 a desired outcome in relation to --
 11 A. I believe so, yeah.
 12 Q. Yes, and you would call that a performance
 13 specification, would you?
 14 A. Yes.
 15 Q. Do you agree with me that that would provide the main
 16 contractor or the subcontractors with a very large
 17 amount of discretion as to the type of products, the
 18 actual materials to be used in order to achieve the
 19 specified outcome?
 20 A. Correct.
 21 Q. Alternatively, is it possible to specify in the
 22 specification full details and criteria for the product
 23 which it's got to meet?
 24 A. Yes.
 25 Q. That would be a prescriptive specification, would it?

30

1 A. Yes.
 2 Q. That would then give the main contractor or
 3 subcontractors a choice to select between different
 4 materials which would meet the criteria of the product
 5 type specified?
 6 A. Yeah, they would have the freedom to suggest
 7 an alternative.
 8 Q. Yes.
 9 Then there is a third type: proprietary
 10 specification; yes?
 11 A. Yeah.
 12 Q. Would I be right in thinking that that would provide
 13 a narrowly defined set of parameters that would not
 14 permit contractors to propose alternatives to the
 15 products specified?
 16 A. I don't know about that.
 17 Q. Well, what would you understand by the phrase
 18 "proprietary specification"?
 19 (Pause)
 20 A. To me, prescribed and proprietary was more or less the
 21 same.
 22 Q. I see.
 23 What would you call a specification which specified
 24 products by name in the NBS itself?
 25 A. That would be prescribed.

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1 Q. I see, okay.
 2 Would you agree that it's up to the architect or the
 3 client to decide how prescriptive the specification is?
 4 A. Yes.
 5 Q. Would you also agree that the design has to be developed
 6 in accordance with the NBS specification?
 7 A. Yes.
 8 Q. So -- and, again, correct me if I'm wrong about this --
 9 would it be right that the NBS specification would
 10 control the precise amount of discretion or flexibility
 11 that the contractor would have in developing the design?
 12 (Pause)
 13 A. I mean, to my understanding the contractor always had
 14 a choice to put forward an alternative, even though you
 15 prescribed exactly what materials or components you
 16 would like to have involved in the project.
 17 Q. Is your understanding general or is your understanding
 18 on this project?
 19 A. It was on this project as well.
 20 Q. I see.
 21 Looking at, if we can, please, page 9 of your
 22 statement, {SEA00014278/9}, I would like you to look,
 23 please, at paragraph 25.4. At 25.4 you say:
 24 "... Studio E included the standard NBS design and
 25 performance specification for rainscreen cladding at

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1 clause H92/310 of the NBS Specification ..."
 2 Do you see that?
 3 A. Yes.
 4 Q. "... which required the building contractor to comply
 5 with the 'CWCT Standard for Systemised Building
 6 Envelopes', among other criteria, including Part 6,
 7 which related to fire performance."
 8 Do you see that?
 9 A. Yes.
 10 Q. Then if you look at paragraph 134 of your statement, if
 11 we just go on to that, please, which you will find on
 12 page 33 {SEA00014278/33}, you say:
 13 "I included the standard NBS specification precedent
 14 H92 for rainscreen cladding which required the building
 15 contractor to comply with the 'CWCT Standard for
 16 Systemised Building Envelopes'. I did not specify
 17 bespoke design or fire performance requirements for the
 18 thermal insulation."
 19 Do you see that?
 20 A. Yes.
 21 Q. I just want to focus with you on your prescription of
 22 the CWCT standard for systemised building envelopes.
 23 Can we look at it. It's at {SEA00000169/68}. Now, this
 24 is within the spec itself, first of all. This is where
 25 we see it being specified in the spec.

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1 If you look at clause 220 there on page 68, it says,
 2 do you see:
 3 "Specification
 4 "Compliance standards: The Centre for Window and
 5 Cladding Technology (CWCT) 'Standard for systemised
 6 building envelopes'.
 7 "Reference information: For the duration of the
 8 contract, keep available at the design office, workshop
 9 and on site copies of:
 10 "- The Centre for Window and Cladding Technology
 11 (CWCT) 'Standard for systemised building envelopes'.
 12 "- Publications invoked by the CWCT 'Standard for
 13 systemised building envelopes'.
 14 Now, you told us earlier in your evidence this
 15 morning that you weren't familiar with the contents of
 16 the CWCT standard itself; that's correct, is it?
 17 A. That's correct.
 18 Q. Was it you who put the CWCT standard into the
 19 specification there at paragraph 220, as we see?
 20 A. I don't recall. It could have been me. It's
 21 a standard, pre-written clause you can tick to be
 22 included in the document.
 23 Q. When it was included, do you remember whether you
 24 applied your mind to whether it should be there or
 25 shouldn't be there?

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1 A. Erm ... I think I do recall that I was thinking it
 2 should be there.
 3 Q. Right.
 4 A. Yes.
 5 Q. Can we look at page 69 {SEA00000169/69}, please, the
 6 next page, which is clause 310, still within the spec,
 7 where you can see:
 8 "Design/performance requirements
 9 "CTI 'Standard for systemised building envelopes'.
 10 Then the different elements of the CWCT standard are
 11 there set out, and there are seven of them or so, and
 12 part 6 is fire performance.
 13 Do you remember that being part of the NBS spec?
 14 A. I would have read it, so --
 15 Q. You would have read it?
 16 A. Yes.
 17 Q. Do you think it was there before you started developing
 18 the spec, or did you put it in?
 19 A. That I don't recall.
 20 Q. Can we look, please, at {INQ00011339}. This is
 21 an extract from the NBS software package.
 22 Before I go to what I'm about to show you, Mr Rek,
 23 can I just ask you: what was the purpose of placing in
 24 the specification the precise reference to the CWCT
 25 standard and the other details we've just looked at?

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1 A. I believe to safeguard compliance with those standards.
 2 Q. Safeguard compliance with those standards, and safeguard
 3 compliance with ADB, perhaps?
 4 A. I don't think there's a reference to ADB.
 5 Q. Okay.
 6 Let's look, then, please, at {INQ00011339}, which
 7 I think you have on the screen there, which is
 8 paragraph 220.
 9 I should tell you what this is. This is an extract
 10 from the NBS software package from the November 2013
 11 version of the NBS, and the Inquiry asked the NBS to
 12 provide it with its software, including what would have
 13 been available at November 2013, Mr Rek, just so you
 14 know what it is.
 15 The first general question is: would Studio E
 16 usually, do you recall, make sure that the software it
 17 was using was up to date, the NBS software?
 18 A. I believe so.
 19 Q. Yes?
 20 A. I believe so.
 21 Q. Yes.
 22 Do you recall whether you were using a version of
 23 the NBS software to develop the NBS specification which
 24 had incorporated all the NBS updates?
 25 A. I trust that it was, yeah.

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1 Q. Does that mean you didn't check yourself?
 2 A. No.
 3 Q. Okay. Do you have any reason now to think that you
 4 weren't using the up-to-date NBS software?
 5 A. No.
 6 Q. This is a screenshot from the NBS, the specification ,
 7 and we can see that the CWCT standard is a standard NBS
 8 clause that's automatically inserted into H92 of the
 9 NBS, the H92 section; yes?
 10 A. Yes.
 11 Q. Were you familiar with that at the time?
 12 A. Yes.
 13 Q. If you could also look, just to complete this, at
 14 {INQ00011365}, we can see that clause or paragraph 310,
 15 "CWCT 'Standard for systemised building envelopes'" and
 16 then the different parts, including part 6, "Fire
 17 performance", were also part of the standard NBS clause
 18 that gets inserted into the H92 section of the NBS at
 19 the time.
 20 A. Yeah. It's offered for inclusion, and you just change
 21 that question mark to a green tick, and then it's in the
 22 document.
 23 Q. Right.
 24 Can I just go back to the NBS spec itself ,
 25 {SEA00000169/68} and look at clause 220. You can see

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1 there the words:
 2 "Reference information: For the duration of the
 3 contract, keep available at the design office , workshop
 4 and on site copies of ..."
 5 The standard, the CWCT standard, and publications
 6 invoked by the CWCT standard.
 7 That does not appear to be part of the standard
 8 form.
 9 Do you know who inserted that in? Or perhaps it was
 10 part of the standard form. Do you remember?
 11 A. I'm missing to understand what's the difference .
 12 Q. Do you remember whether you made a decision to include
 13 that second bullet point under section 220 which
 14 required the CWCT standard and publications to be kept
 15 at the design office , workshop and on site?
 16 A. Isn't that part of the standard clause?
 17 Q. Well, it may be. My question is: did you focus on that
 18 and make a decision to include it?
 19 (Pause)
 20 A. I do not recall , but I might have.
 21 Q. Okay.
 22 Now, can we just look at the CWCT standard quoted in
 23 the NBS spec. I know you say you weren't familiar with
 24 it, so my questions may not take terribly long, but
 25 let's just look at it. It's {CWCT0000019}.

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1 I'm so sorry, I've just given you a wrong reference.
 2 This is the CWCT guidance and it's dated March 2011.
 3 This is technical note 73, which would be one of the
 4 pieces of guidance issued by CWCT referred to at
 5 paragraph 220 we've just looked at.
 6 Were you familiar with this document, do you think,
 7 at the time you were involved in developing the
 8 specification?
 9 A. No.
 10 Q. No. So if I were to ask you detailed questions about
 11 its contents, would you be able to help me?
 12 A. I don't know.
 13 Q. Right.
 14 A. Probably not, if --
 15 Q. Okay.
 16 A. -- I wasn't -- I'm not familiar with it.
 17 Q. All right, not the guidance. Let's look, then, at the
 18 standard, please. This is at {CWCT0000046}. This is
 19 the first page of it, and you can see "Part 6 Fire
 20 performance" on the first page.
 21 Just looking at this document on the screen, does it
 22 look familiar to you?
 23 A. No.
 24 Q. Let me just ask you one or two questions, then, about
 25 its contents, bearing in mind that it wasn't familiar to

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1 you at the time. I want to know whether the principles
 2 in it were familiar to you.
 3 Can I ask you, please, to go to page 11
 4 {CWCT0000046/11} of this document and look at
 5 paragraph 6.3. Under paragraph 6.3, "Fire resistance",
 6 I just want to ask you about the blue italics at the
 7 bottom.
 8 Just to be clear, this is the standard, and the
 9 words in ordinary writing, in black, are the standard,
 10 and the blue italics are commentary, just so you're
 11 clear about that.
 12 The second paragraph from the bottom of page 11
 13 says:
 14 "Aluminium envelope systems do not normally have
 15 significant resistance to fire. Most unmodified
 16 aluminium building envelopes will provide only 10 to 20
 17 minutes stability and integrity resistance and
 18 negligible insulation resistance."
 19 Were you aware of that as a principle or observation
 20 at the time of your involvement in the Grenfell project?
 21 A. No.
 22 Q. Can I ask you to be shown, please, page 15
 23 {CWCT0000046/15} of the same document. This is
 24 paragraph 6.6.1 under "Materials", and 6.6.1 refers to
 25 "Materials in rainscreen cavities".

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1 If you look at the words this time -- we will look
 2 at the blue italics in a moment -- it says:
 3 "The cavity behind a rainscreen and in front of the
 4 air barrier should not include materials which can
 5 significantly promote flame spread within the unseen
 6 cavity. In general this zone may contain a timber,
 7 aluminium or other metal vertical framework and
 8 insulation of appropriate resistance to combustion."

9 Do you see that?

10 A. Yes.

11 Q. Okay.

12 Then it goes on, because that's the background, to
 13 look at the -- and we can look at the blue italics
 14 together:

15 "The use of any combustible material for the
 16 supporting framework and insulation [and those are
 17 important words] within the cavity may need to be
 18 considered as the building height increases."

19 Were you aware of that as a general principle at the
 20 time of your involvement in the Grenfell project?

21 A. No, sorry.

22 Q. If you look at the next paragraph itself, 6.6.2,
 23 "Insulation materials":

24 "Insulation in walls of buildings with a storey more
 25 than 18m above ground level should be of limited

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1 combustibility."

2 Were you aware of that as a general principle at the
 3 time of your involvement in the Grenfell Tower project?

4 A. I don't recall I was.

5 Q. Right.

6 We looked at paragraph 12.7 of ADB earlier on this
 7 morning, Mr Rek, in your evidence, which referred to
 8 materials of limited combustibility.

9 Can I just be clear, then: were you aware, at the
 10 time of your involvement in the Grenfell Tower project,
 11 of the concept of materials of limited combustibility?

12 A. I don't recall. I know my awareness came later in my
 13 professional career, but I don't know whether I acquired
 14 a knowledge prior to Grenfell project.

15 Q. I see.

16 Would it follow from that answer that you were not
 17 aware of the definition of what would constitute
 18 a material of limited combustibility?

19 A. Correct.

20 Q. Right.

21 Would you say, having looked at a little bit of this
 22 standard -- and there is plenty more we could look at --
 23 that before drafting the elements of the NBS
 24 specification dealing with the rainscreen system, H92,
 25 it would have been important for you to familiarise

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1 yourself with the relevant requirements of both the
 2 Building Regulations and the approved guidance?

3 A. Can you repeat the question?

4 Q. Yes.

5 Would you agree with me, now that we've looked at
 6 a little bit of the CWCT standard, that before drafting
 7 the elements of the NBS specification relating to the
 8 rainscreen cladding under part H92, it would have been
 9 important for you to familiarise yourself with the
 10 requirements of the Building Regulations and the
 11 approved guidance, or Approved Document B, to be more
 12 precise?

13 (Pause)

14 A. I mean, retrospectively looking at it, I think it would
 15 help if I had a better understanding, of course. It's
 16 a lesson learned. But we had a fire consultant on the
 17 job, and I considered fire related issues quite
 18 a complicated subject outside of my competence.

19 Q. You say, "We had a fire consultant on the job"; who was
 20 that?

21 A. It would be Exova.

22 Q. Right. Did Exova play any part in helping you formulate
 23 the contents of the NBS specification?

24 A. I couldn't recall at the time, but I now have evidence
 25 that I was in contact with Terry Ashton with regards to

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1 cavity barriers.

2 Q. Apart from your discussion with Terry Ashton about
 3 cavity barriers, my question was a bit of a broader one:
 4 do you recall Exova having any input into the choice of
 5 materials, or choice of guidance, such as the CWCT, in
 6 the NBS specification?

7 A. Not to my knowledge.

8 Q. Right.

9 A. I don't recall.

10 Q. If you could look at page 12 {CWCT0000046/12}, please,
 11 of the CWCT guidance while we're on it, you can see it's
 12 quite a long chunk of blue italic text on that page, but
 13 four paragraphs down it says:

14 "AD B provides guidance on the fire resistance
 15 requirements for external walls."

16 Did you yourself check ADB fire resistance
 17 requirements for the external walls when building this
 18 specification up?

19 A. I don't recall that.

20 Q. Okay. Is there a reason why you might not have done?

21 (Pause)

22 A. I mean, I believe I assumed that the design of the
 23 cladding and the materials involved had been considered
 24 before my engagement, and some of the choices of
 25 materials I inherited, some of them appeared in the

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1 stage D report I read.
 2 (Pause)
 3 Can you repeat the question? I forgot ...
 4 Q. Let me take it slightly differently, then.
 5 A. Yeah.
 6 Q. If you look at the words I've just shown you on the
 7 page, it says:
 8 "AD B provides guidance on the fire resistance
 9 requirements for external walls."
 10 Did you know that the CWCT guidance itself contains
 11 a link to ADB, at least in that respect, and tells you
 12 where to look if you want guidance on the fire
 13 resistance requirements for external walls?
 14 A. No, because I wouldn't have read this document.
 15 Q. Right, okay.
 16 The question I then asked you was whether you had
 17 checked the ADB fire resistance requirements for
 18 external walls when you were developing the
 19 specification.
 20 A. I don't recall doing that.
 21 MR MILLETT: Okay. Right.
 22 We're now going to turn to a different topic.
 23 Mr Chairman, this will take us beyond the break, but we
 24 can start it, certainly.
 25 SIR MARTIN MOORE-BICK: It probably would be good to do

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1 another ten minutes or so.
 2 MR MILLETT: Certainly.
 3 SIR MARTIN MOORE-BICK: Are you all right for another
 4 ten minutes or so, Mr Rek?
 5 THE WITNESS: I am, yes.
 6 SIR MARTIN MOORE-BICK: Then we will have a reasonable
 7 break.
 8 THE WITNESS: Yes.
 9 MR MILLETT: Very good.
 10 I am going to turn to the topic of the ACM,
 11 specifying the ACM, the aluminium composite.
 12 Prior to your involvement on Grenfell, had you ever
 13 actually used or specified a composite panel such as ACM
 14 for use as a rainscreen element?
 15 A. I don't think I did.
 16 Q. What about for any other purpose? Have you ever
 17 prescribed an ACM panel for any purpose?
 18 A. I'm just going through my previous projects. I don't
 19 think I had.
 20 Q. Were you aware that composite panels, whether aluminium
 21 or, indeed, zinc for that matter, could come with
 22 different kinds of core, for example fire resistant
 23 core?
 24 A. Again, I don't recall whether I was aware of it at the
 25 time.

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1 Q. Okay. Is that something you came to learn later?
 2 A. Yes.
 3 Q. I see. Later on a project or later as a result of the
 4 Grenfell Tower fire?
 5 A. It was on a different project prior to the fire.
 6 Q. Right. Was that the Bromley South --
 7 A. Yes.
 8 Q. That's the one.
 9 Did you, at the time of Grenfell, understand how
 10 a cladding panel with a polyethylene core might behave
 11 in a fire?
 12 A. Sorry, I lost the beginning of the question.
 13 Q. Yes. At the time of the Grenfell Tower project, did you
 14 have any understanding of how a cladding panel with
 15 a polyethylene core might behave in a fire?
 16 A. No.
 17 Q. Were you aware at all at that time that composite
 18 rainscreen panels such as ACM could contribute to
 19 external flame spread?
 20 A. No.
 21 Q. Did you know what polyethylene actually was?
 22 A. Some sort of plastic.
 23 Q. Some sort of plastic.
 24 Did you think positively about how that some sort of
 25 plastic might contribute to the spread of fire?

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1 A. No.
 2 Q. At the time of your working on the Grenfell project,
 3 were you aware of previous fires involving external
 4 cladding façades on high-rise residential buildings,
 5 such as, for example, Knowsley Heights in Liverpool in
 6 1991?
 7 A. No, I wasn't.
 8 Q. What about Garnock Court in Irvine in 1999?
 9 A. No.
 10 Q. The fire at Lakeland House in Southwark in London in
 11 2009?
 12 A. No. I learned about it much later, after the Inquiry
 13 started.
 14 Q. Were you aware of the spate of fires in high-rise
 15 buildings in the UAE in 2012 to 2013?
 16 A. No.
 17 Q. What about the well-publicised fires in Dubai at
 18 The Address or The Torch in 2015? I know that's after
 19 your time on the Grenfell Tower project.
 20 A. Neither that one.
 21 Q. Really? Okay.
 22 Can we then turn to the process of selection of the
 23 ACM panels. Can I ask you to go back, please, to your
 24 statement at {SEA00014278/8}, please. I would like you
 25 to look at paragraph 25.1. You say there:

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1 "From what I can recall, polyethylene core composite
2 panels had already been considered for the cladding for
3 the Project before my involvement on the Project and
4 I do not think my enquiry about these types of panel was
5 the first time that they were considered."

6 Then you go on to consider some drawings. We will
7 come to look at that in detail.

8 Are you saying here that you saw those drawings you
9 refer to at the time and concluded from them at the time
10 that PE composite panels had already been considered?

11 A. I saw those drawings. That was part of the documents
12 I studied before I started working on the specification
13 and developing the drawings.

14 Q. I see. So just to be very clear, you're not relying on
15 those drawings now as evidence to support your belief at
16 the time --

17 A. No.

18 Q. Okay.

19 Can I ask you to look at {SEA00001586}. This is the
20 first of the two drawings you refer to in paragraph 25.1
21 as those you looked at at the time. Now, if you look at
22 this drawing, which is the Studio E drawing of
23 September 2012, so before your involvement --

24 A. Yes.

25 Q. -- at the top right-hand corner of the drawing, you can

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1 see it says, "Composite Zinc Panel", and then I think it
2 says, "Pigmento green".

3 A. Yes.

4 Q. That's on the spandrels. You can also see composite
5 zinc panels on the columns on the right-hand side, lower
6 down, and at the bottom of the drawing.

7 A. Yes, I can see that.

8 Q. You can see it there.

9 This was one of the drawings that you looked at, you
10 say, at the time to support your view or knowledge that
11 ACM had already been selected. Do you accept that,
12 looking at that drawing, there is no reference there to
13 polyethylene core?

14 A. Correct.

15 Q. Or indeed aluminium composite.

16 A. Yeah.

17 Q. Were there, to your knowledge, zinc composite panels on
18 the market that did not have a polyethylene core?

19 (Pause)

20 A. I don't know.

21 Q. How did this drawing, when you looked at it at the time,
22 lead you to think that ACM had already been considered?

23 (Pause)

24 A. Well, I might have mixed up zinc and aluminium, but what
25 I meant are composite cladding materials with a metal

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1 sheet on them were considered before my involvement.

2 Q. Right. So you might have mixed up zinc with aluminium.
3 That's quite a mix-up, isn't it?

4 My question really is: how could you confuse zinc
5 for aluminium if, as you say in your statement, you
6 thought ACM, aluminium, had already been specified
7 before you came into the project by reference to these
8 pre-existing drawings?

9 (Pause)

10 A. I mean, sometimes you use these abbreviations, like ACM,
11 too often, you forget what A stands for, you just know
12 it's a metal, and ACM is aluminium and I probably made
13 a mistake there.

14 Q. Right. But there is no reference in this drawing to
15 polyethylene as the material in the core composite, is
16 there?

17 A. No.

18 Q. So my question really is: how could this drawing have
19 led you to think that polyethylene core composite panels
20 were prepared in drawings before you became involved in
21 the project?

22 A. I think I took the word "composite zinc panel" or "metal
23 composite" -- "metal panel" as containing that plastic
24 core, because I guess that's what we had samples of in
25 the office, and I was just familiar with the product,

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1 how it looked.

2 Q. If you look, then, at the second of the two drawings
3 that you refer to at paragraph 25.1 of your statement,
4 this is {SEA00002135}. Again, if you look at the top
5 right-hand corner, you can see that it says:

6 "Composite Zinc Column Cladding pitched/tapered to
7 match."

8 Do you see that? Then three up from the bottom on
9 the right-hand side:

10 "Composite Zinc Column Cladding: (Quartz)."

11 And:

12 "Composite Zinc Spandrel Panel: (Quartz)."

13 Yes?

14 A. Yes.

15 Q. Again, there is no reference in there to polyethylene,
16 so the same question again: how did those drawings,
17 which don't refer to polyethylene, tell you that
18 polyethylene core composite panels had already become
19 involved before you got into the project?

20 A. I think the inclusion of the word "polyethylene" in my
21 statement came in from my knowledge at the time when
22 I was providing the statement.

23 Q. I see.

24 A. Because I've read so much about it, I probably mixed
25 up --

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1 Q. I follow.
 2 So, just to be clear, would you agree that it's
 3 wrong to say that either of these drawings show that
 4 a panel with a polyethylene core had been considered?
 5 A. Yeah, they don't show explicitly polyethylene, but
 6 I don't know whether the quartz product was -- I can't
 7 remember whether it was a product which then, if you
 8 looked it up, would tell you it had a polyethylene --
 9 I don't know.
 10 MR MILLETT: Okay.
 11 Mr Chairman, just one or two more questions on this,
 12 and then we can break.
 13 SIR MARTIN MOORE-BICK: Yes, all right.
 14 MR MILLETT: Did anybody at Studio E tell you that the
 15 composite zinc panels on these drawings had
 16 a polyethylene core?
 17 A. I don't recall explicitly hearing the word
 18 "polyethylene".
 19 Q. Right.
 20 A. No.
 21 Q. So does that mean that when you were involved in the
 22 project, developing the NBS specification, you knew that
 23 the panels were a composite, but didn't know what
 24 material the core was?
 25 A. Having the sample in my hands, I knew it was some sort

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1 of plastic, but --
 2 Q. But you didn't investigate further?
 3 A. I don't think I did.
 4 MR MILLETT: Very good.
 5 Mr Chairman, is that a convenient moment for
 6 a break?
 7 SIR MARTIN MOORE-BICK: Yes, thank you very much.
 8 Well, Mr Rek, we will have a break now.
 9 THE WITNESS: Yes.
 10 SIR MARTIN MOORE-BICK: I am going to ask you, please, not
 11 to talk to anyone about your evidence or anything
 12 relating to it while you're out of the room.
 13 THE WITNESS: Yes.
 14 SIR MARTIN MOORE-BICK: We are only having one break this
 15 morning, so I think we can be a little bit more generous
 16 to you than if we were having two, so I'm going to say
 17 please be back to resume at 11.35. All right?
 18 THE WITNESS: Okay.
 19 SIR MARTIN MOORE-BICK: Would you like to go with the usher,
 20 then, please.
 21 Good, 11.35, please.
 22 MR MILLETT: Thank you.
 23 (11.20 am)
 24 (A short break)
 25 (11.35 am)

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1 SIR MARTIN MOORE-BICK: All right. Are you ready to carry
 2 on, Mr Rek?
 3 THE WITNESS: Yes, I am.
 4 SIR MARTIN MOORE-BICK: Thank you very much.
 5 Yes, Mr Millett.
 6 MR MILLETT: Mr Chairman.
 7 Mr Rek, can I start by going back over a question
 8 and answer that we had this morning together, where
 9 I might have been -- in fact, I probably was -- a bit
 10 unfair to you, and I just want to set the record
 11 straight on that. You don't need to be shown this, but
 12 for the record, it's {Day12/50:25}, and the answer at
 13 {Day12/51:3-5}.
 14 I put to you that ACM, aluminium composite, had
 15 already been specified when we were looking at the
 16 drawings which showed zinc. In fact, to be fair to you,
 17 your paragraph 25.1 doesn't say that aluminium
 18 polyethylene composite panels had been specified, only
 19 PE. So your answers in respect of that, the mix-up
 20 potentially between zinc and aluminium, are founded on
 21 my misreading of your witness statement. Okay?
 22 A. Thanks.
 23 Q. Just to be clear about that.
 24 Moving on, can I ask you, please, to look at
 25 {SEA00014278/9}. This is paragraph 25.2 of your

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1 statement. Let's just look at that together.
 2 Paragraph 25.2, you say:
 3 "I do not recall discussing the fire rating or fire
 4 performance of polyethylene based composite panels while
 5 I worked on the Project. I also do not recall
 6 discussing whether these panels came with fire retardant
 7 cores or whether any investigation on compliance with
 8 Part B of the Building Regulations 2010 (Building
 9 Regulations) had taken place. I may have assumed that
 10 compliance with Building Regulations had already been
 11 confirmed prior to my involvement, since I had simply
 12 been asked to obtain samples of these materials and the
 13 focus appeared to be on the appearance and cost of the
 14 product."
 15 Now, I just want to examine that paragraph with you
 16 and break it down into bits, if I can.
 17 First, you say you don't recall discussing the fire
 18 rating or performance of PE composite panels.
 19 Do I take it that there was no discussion at all
 20 with Mr Sounes or anybody else at Studio E on that topic
 21 that you had?
 22 A. Not to my knowledge or recollection.
 23 Q. You also say that you didn't recall discussing whether
 24 the panels came with fire retardant cores.
 25 Again, can I take it that it didn't occur to you or

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1 anybody else at Studio E to your knowledge to
 2 investigate whether there was a fire resistant or
 3 retardant core available?
 4 A. I don't recall that.
 5 Q. You say you don't recall whether compliance with part B
 6 of the Building Regulations had been confirmed prior to
 7 your involvement. Did you discuss that with anybody at
 8 all, do you remember?
 9 A. Whether compliance with part B --
 10 Q. Yes.
 11 A. -- had been confirmed prior to my involvement?
 12 Q. Yes.
 13 A. No, I don't recall discussing that.
 14 Q. You go on to say:
 15 "I may have assumed that compliance with
 16 Building Regulations had already been confirmed prior to
 17 my involvement ..."
 18 Do you remember on what basis you made that
 19 assumption, or may have made that assumption?
 20 A. Since there had been some research done on the materials
 21 before my involvement, and when I was briefed by Bruce,
 22 he mentioned composite cladding materials, he was
 23 talking about zinc. There was a fire report --
 24 fire strategy report written, and I was fairly new to
 25 the project, a project which had been running for --

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1 I don't know how long, from 2012.
 2 Q. Yes.
 3 A. And ... yeah.
 4 Q. Just looking at that answer, following that up, you say
 5 "When I was briefed by Bruce, he mentioned composite
 6 cladding materials"; did he mention them in the context
 7 of fire safety?
 8 A. No.
 9 Q. What did he tell you, if you can recall, about the
 10 composite cladding materials?
 11 A. I mean, as I remember, back then the focus was on
 12 rigidity of the cladding material, given that it was
 13 going to be mounted on a -- in a height with a lot of
 14 wind exposure, and fairly large panels.
 15 Q. You say also in that last answer but one that there had
 16 been some research done on the materials before your
 17 involvement. What was that research, do you know?
 18 A. What was the research?
 19 Q. Yes.
 20 A. I don't know, I haven't done that research, but Bruce
 21 gave me an indication what materials had been considered
 22 and he told me which one to look at and which samples to
 23 obtain, and he also mentioned liaising with the
 24 planners, and that the cladding material evolved from,
 25 like, vividly coloured HPL panels to zinc. Yeah.

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1 Q. Did Bruce Soune tell you that research had been done on
 2 the ACM panels that were being selected?
 3 A. It's difficult to use the word "research", I guess --
 4 Q. You used the word, so I'm just exploring it with you,
 5 Mr Rek.
 6 A. Yeah. Research to what extent is a question I don't
 7 know an answer to, but he would have selected potential
 8 materials which he would discuss, I guess, with the
 9 client and the planners.
 10 Q. Right.
 11 In general terms, would you expect compliance to
 12 have been investigated prior to stage D or at stage D,
 13 or in the stage D report?
 14 A. I don't know.
 15 Q. Was there a project file that you could check if you
 16 wanted to, to see whether building regulation compliance
 17 had been considered in relation to the ACM?
 18 A. Not that I recall, no.
 19 Q. If ACM had been considered, and its fire safety the
 20 subject of discussion or consideration within Studio E,
 21 where would you expect to see those considerations or
 22 deliberations recorded?
 23 (Pause)
 24 A. Recorded ...
 25 (Pause)

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1 Might have been a report of a design review.
 2 I don't know.
 3 Q. Do you remember ever seeing a report of a design review
 4 during your few months of involvement on this project?
 5 A. No. I think I recall only reading the stage D report.
 6 Q. Okay.
 7 You say lower down the paragraph that you were
 8 simply asked to obtain samples of these materials; you
 9 see that?
 10 A. Yes.
 11 Q. Do you mean PE core composite materials?
 12 A. As well, yes.
 13 Q. Yes. Who asked you to obtain those samples?
 14 A. Bruce.
 15 Q. And at what stage of your involvement was that? Early
 16 on or part-way through?
 17 A. I think it was quite early on.
 18 Q. If you go back, please, a page or two to page 6
 19 {SEA000014278/6} of your statement and look at
 20 paragraph 18 with me, please, you can see -- this is the
 21 top of page 6 -- that you say there:
 22 "I understood from Bruce that the client, KCTMO,
 23 wanted to include options in the tender for Aluminium
 24 Composite Material (ACM) cladding, so we also required
 25 tenderers to provide for alternative ACM materials

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1 (Reynobond, Alucobond and Quartz Zinc) ..."

2 Then you refer to the NBS spec from page 63.

3 Who was it, do you remember, that identified

4 Reynobond as one of the alternative materials?

5 A. I don't know who identified it, but I got the knowledge

6 through Bruce.

7 Q. You got the knowledge through Bruce, okay.

8 Now, you referred a minute ago to an Exova report,

9 I think. Do you remember receiving a draft of the Exova

10 outline fire safety strategy in early November 2013?

11 (Pause)

12 A. I'm not sure. I don't recall. I don't know.

13 Q. Okay.

14 Now, do you remember in the stage D report, when you

15 were reading into the project, seeing an issue,

16 a version, of the Exova outline fire safety strategy?

17 A. Yeah, that would be part of it.

18 Q. You did.

19 Can I then take you to a document, {SEA00009716/3},

20 please. This is an email, or should be an email. If

21 you look at the bottom of that page -- and this is one

22 of those, I'm afraid, which splits over two pages -- and

23 over on to page 4 {SEA00009716/4}, here is an email from

24 Terry Ashton of Exova on 5 November to you, copied to

25 Mr Sounes; yes?

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1 A. Yes.

2 Q. If you are flipped to page 4, please, it says:

3 "Tomas/Bruce

4 "Further to Bruce's earlier email I've revised the

5 report (see the draft with changes highlighted in yellow

6 attached) and have annotated copies of the drawings with

7 the necessary fire ratings using your colour scheme(see

8 attached). Hopefully, we should be able to finalise

9 both within the timescale Bruce identified."

10 Now, I just want to ask you about the timing of

11 that, as we see, 5 November 2013.

12 Was that before or after, do you think, you had

13 entered the specification for polyethylene cored ACM

14 panels on the NBS spec?

15 (Pause)

16 A. I guess this would happen after.

17 Q. When you say "this" --

18 A. This email would, I believe, because I would start

19 working on the NBS specification fairly from the outset

20 of my involvement.

21 Q. So September time?

22 A. I believe so.

23 Q. Yes, I see, okay.

24 Were you ever asked to send Exova details of the

25 cladding panels, particularly the alternative cladding

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1 panels of Reynobond ACM PE core, to Exova?

2 A. No.

3 Q. Were you aware of whether Exova knew or didn't know of

4 what was being specified for the material for the

5 proposed rainscreen for Grenfell?

6 A. Whether I knew?

7 Q. No, whether Exova knew.

8 A. Well, I didn't know whether they knew. Yeah.

9 Q. So just to be clear, you didn't know whether Exova knew

10 or didn't know about what was proposed for rainscreen?

11 A. Correct.

12 Q. Okay.

13 Now, go to paragraph 30 of your statement, please,

14 at page 10, {SEA00014278/10}. You say there, towards

15 the bottom of the page:

16 "As I have stated above, I cannot recall discussing

17 the fire rating or fire performance of any of the

18 cladding panels that I investigated and sourced from

19 suppliers and manufacturers while I worked on the

20 Project."

21 Do you see that?

22 A. Yes.

23 Q. You refer in your statement from paragraph 26 onwards,

24 from page 9 {SEA00014278/9}, to a series of contacts

25 with different cladding panel suppliers or distributors

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1 in order to obtain quotes.

2 In general terms, can we take it that your focus at

3 that time was on cost and appearance?

4 A. Yes.

5 Q. You also say -- and I'll take this quickly -- at

6 paragraphs 37 and 38 of your statement {SEA00014278/12}

7 that you asked suppliers questions about fixing methods

8 due to the impact that the fixing method may have on the

9 speed of insulation and the cost.

10 A. Yes.

11 Q. Did you ever ask any of the suppliers whether the fixing

12 method would affect its fire performance?

13 A. I don't believe I did.

14 Q. Did you ever ask suppliers about the fire performance of

15 any of the panels that you were investigating with them?

16 A. I don't believe I did.

17 Q. I suppose it would follow that you didn't check with

18 them whether the panels that you were considering

19 achieved class 0 or the European equivalent.

20 A. Don't --

21 Q. So-called equivalent. No.

22 Now, go back to your statement, please, at

23 paragraph 26. This is where you deal with a meeting.

24 If we can just get back to that, it's on page 9

25 {SEA00014278/9}. You say:

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1 "On 27 September 2013 I attended a meeting with
2 Bruce Sounes (Studio E), Mark Harris (Commercial Manager
3 at Harley) and Ray Bailey (Managing Director of Harley),
4 at a coffee shop or restaurant at Hays Galleria near
5 London Bridge station, which Bruce had arranged to
6 discuss the cladding specification."

7 This meeting, Mr Rek, will come up again in the
8 evidence of you and other witnesses, but we call this
9 the Hays Galleria meeting.

10 You say there that you had arranged to discuss the
11 cladding specification. If we go on to paragraph 29 of
12 your statement, {SEA00014278/10}, you say:

13 "I cannot recall the details of the discussion and
14 I did not take a note of the meeting. If I received any
15 hard copy material at the meeting it is probably lost.
16 I cannot recall whether or not we discussed the
17 suitability of PIR (polyisocyanurate) or rigid foam ..."

18 Then you go on to say in the next paragraph in the
19 second sentence:

20 "However, I have reviewed my email correspondence at
21 the time and it is clear that we must have discussed the
22 different types of cladding at the meeting with Harley;
23 although I think it was more to do with the appearance
24 and price of the various materials and not their fire
25 performance or fire rating."

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1 Do you see that?

2 A. Yes.

3 Q. That's paragraph 30 at the end.

4 Now, does that include at the meeting? You didn't
5 discuss fire rating or fire performance of any of the
6 cladding panels that you had investigated at the
7 Hays Galleria meeting?

8 A. I don't recall that.

9 Q. Right.

10 Now, at that stage of the design, selection of
11 materials to include within the NBS specification, would
12 you normally ask a specialist subcontractor about what
13 materials should be put in?

14 (Pause)

15 A. I don't know an answer to that.

16 Q. Okay. Maybe it wasn't a brilliant question. Let me try
17 it a different way.

18 As at the date of the Hays Galleria meeting,
19 27 September 2013, and given the state of the
20 specification at that point, was it at that time, at
21 that point, your normal practice to involve specialist
22 subcontractors in the decision about what materials to
23 put into an NBS specification such as this?

24 A. I'm not sure I can answer that, because for me this kind
25 of meeting was new. I never had previous dealings with

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1 specialist subcontractors helping out on developing the
2 design.

3 Q. Right. So a meeting such as the Hays Galleria meeting
4 was a novel experience for you as an architect?

5 A. Yes.

6 Q. Did you ask Mr Sounes, given that it was a novel
7 experience, why you were having it before you went to
8 it?

9 A. I wouldn't question the reasons. I think my assumption
10 was to check the buildability with the specialist
11 subcontractor and what their standard offer would be.

12 Q. Right.

13 A. What is achievable for a given price.

14 Q. You say check the buildability; what do you mean by
15 that?

16 A. Again, taking it back to the price check, what sort of
17 panels, what sort of fixing method we can expect within
18 the budget we have.

19 Q. I see. So this was essentially a budget issue, is that
20 fair, or were there other things?

21 A. As I said, I really don't recall, and I regret not being
22 able to recall any conversation, I guess.

23 Q. All right.

24 Let's look on at some emails.

25 Before I do that, just before we leave the

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1 Hays Galleria meeting -- although we may have to come
2 back to it -- did you form any impression at that
3 meeting that Harley had a preference for ACM as the
4 material for use on the rainscreen?

5 (Pause)

6 A. I don't know whether it was a preference. It was
7 definitely within their portfolio of projects they
8 worked on, but whether they advocated it as a preference
9 I don't recall.

10 Q. I appreciate it's a long time ago and I'm asking you
11 an impressionistic question. Let me try another one:
12 did you form an impression at that meeting, so far as
13 you can recall, that Harley had a particular preference
14 for a particular manufacturer of ACM?

15 A. I don't recall that.

16 Q. Okay.

17 Can I then take you to {SEA00009240}. This is
18 an email of 18 October 2013 from you to Paul Cousins,
19 copied to Bruce Sounes and Paddy Glennon. Paul Cousins
20 was at -- do you remember?

21 A. SIG.

22 Q. Exactly. You say to him in that email:

23 "Hi Paul,

24 "Referring back to our phone call today can you
25 please:

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1 "Provide quotation for supply of the Zinc NOVA
 2 Composite panels in line with our design intent drawings
 3 issued previously. We are under pressure from the
 4 client regarding the costs with suggestions flagged of
 5 using aluminium. We (and the Planners) would much
 6 rather see zinc up there. I'll be expecting your quote
 7 by Tuesday next week as discussed."

8 Is the reference to the planners there to the RBKC
 9 planning department?

10 A. I believe so.

11 Q. Did you get the feeling that Studio E was under some
 12 kind of pressure to specify cheaper ACM material instead
 13 of zinc?

14 A. From the client? Yes.

15 Q. Yes. What gave you that impression?

16 A. Bruce relaying the fact that those ACM alternatives were
 17 to be included in the specification.

18 Q. I think it's right, though, that, as we may see, you
 19 continued to pursue zinc as an option?

20 A. Yes.

21 Q. Can I ask you to go to paragraph 59 of your statement,
 22 please, page 16 {SEA00014278/16}. You say there:
 23 "Simon Walker at SIG responded ..."
 24 You say that they had made contact with Mark Harris,
 25 he is Harley:

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1 "... and would provide budgets to Harley the
 2 following week for the rainscreen cladding."
 3 Do you see that?

4 A. Yes.

5 Q. So ultimately you put SIG in touch with Harley so you
 6 could get a price, essentially, for both supply and
 7 installation of the rainscreen; yes?

8 A. Yes.

9 Q. Can I ask you to move on to {SEA00009736}. This is
 10 an email to you from Mark Harris on 7 November 2013 with
 11 a quote for the Proteus HR panel. Do you see that?

12 A. (Witness nods).

13 Q. He starts:

14 "Good morning Tomas
 15 "A response has been received at last from KME ..."
 16 Do you remember who KME were?

17 A. It was the provider of that panel.

18 Q. Yes. You see the quote below it:
 19 "Proteus HR Composite - £282m2."
 20 Mr Harris says:
 21 "Quite what finish this is based on, I have no idea
 22 (due to lack of information)."
 23 Then he says this:
 24 "I have to say, from a Harley selfish point of view,
 25 our preference would be to use ACM. It's tried & tested

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1 (on many Harley projects), and we are confident in the
 2 cost base. That said, we are of course an envelope
 3 contractor, and would be happy to clad the build in the
 4 material of choice."

5 Do you see that?

6 A. Yes.

7 Q. What did you understand when you received this email
 8 that Mark Harris meant when he said "from a Harley
 9 selfish point of view"?

10 A. I think that they just had a frustrated experience in
 11 dealings with KME on providing the costs.

12 Q. Right. You say that. Was that based on any discussion
 13 or any other communication you had with Mr Harris or
 14 anybody else at Harley, or is it based on this email?

15 (Pause)

16 A. Well, I was part to an email chain, or more emails than
 17 just this, I believe, where we were chasing KME for the
 18 costs.

19 Q. Did you ask Mr Harris what he meant when he said "from
 20 a Harley selfish point of view, our preference would be
 21 to use ACM"?

22 A. I don't remember asking him.

23 Q. Did this expression of Harley's selfish point of view
 24 and their preference influence, so far as you are
 25 concerned, the decision to include ACM as an alternative

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1 in the NBS specification?

2 A. It didn't influence my decision.

3 Q. Right.

4 Can I ask you to look at paragraph 65, please, on
 5 page 17 {SEA00014278/17} of your statement. You set out
 6 there your recollection about other projects, and you
 7 say in the fourth line down:
 8 "I do, however, seem to recall that Harley had
 9 mentioned another high-rise tower project that they had
 10 carried out at a development called Ferrier Point in
 11 Canning Town, at which they had used ACM cladding. ACM
 12 cladding was widely used in the industry at the time
 13 (ie in 2013), and my understanding was that architects,
 14 and the building industry more generally, appeared to be
 15 content with its suitability for buildings over 18m in
 16 height."

17 Just a number of questions about that.

18 Do you remember in what context Harley mentioned the
 19 Ferrier Point project?

20 A. When they were showing their portfolio.

21 Q. Was that at the Hays Galleria meeting or another time?

22 A. Yes.

23 Q. Do you remember who mentioned the Ferrier Point project?

24 A. One of them. I don't know who.

25 Q. Were you given any details of the Ferrier Point project?

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1 A. I don't recall, but yeah, they would mention the
2 material used.
3 Q. Right.
4 Did they tell you that aluminium composite with a PE
5 core was used on that project?
6 A. Don't recall that.
7 Q. Did the fact that they had mentioned it affect your
8 thinking about the suitability of ACM panels for the
9 Grenfell Tower project?
10 A. Well, they showed more than just this project. Some of
11 them were high-rise buildings clad with this sort of
12 material, or product.
13 Q. Right. So they showed you other projects as well?
14 A. Yes.
15 Q. But you recall the Ferrier Point project. Do you recall
16 any others specifically that they showed you?
17 A. No. I just remember the image, seeing it again.
18 Q. Right.
19 To come back to my question, did the fact that they
20 had mentioned the use of ACM on the Ferrier Point
21 project affect your thinking about the suitability of
22 ACM panels for use on the Grenfell Tower project?
23 A. I believe it did, yeah.
24 Q. In what way?
25 A. That it's a tried material which has been used,

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1 installed, on many buildings.
2 Q. Yes.
3 Now, you go on to say that the ACM cladding was
4 widely used in the industry at the time, 2013, as we've
5 seen, in your paragraph 65, and I've just read that to
6 you. How did you know that ACM was widely used in the
7 industry at the time?
8 A. Just general knowledge, seeing it around.
9 Q. Right.
10 You say that your understanding -- this is
11 paragraph 65 -- was that architects and the building
12 industry more generally appeared to be content with its
13 suitability. By architects, are you including Studio E
14 in that?
15 A. Yeah. I think my statement is quite general.
16 Q. Okay, so you mean the architects profession, do you,
17 rather than specific architects?
18 A. Yes. That's my personal opinion.
19 Q. Right.
20 Do you have any recollection of having any thinking
21 at the time as to whether Studio E as an architect
22 itself was content with the use of ACM?
23 A. Can you repeat the question? Sorry.
24 Q. Well, let me try getting at it a different way.
25 At the time, what experience, to your knowledge, did

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1 Studio E have of the use of ACM in an overcladding
2 project?
3 A. I don't know specifically.
4 Q. Do you know how you came to the understanding that
5 architects generally appeared to be content with the
6 suitability of ACM over 18 metres?
7 A. Just seeing the evidence of it being installed.
8 Q. On other projects?
9 A. Yes.
10 Q. Would you agree with the general proposition that the
11 fact that a product is widely used provides no
12 indication of its suitability for any individual
13 project?
14 A. Correct.
15 Q. Would you also agree that it's for the design team to
16 establish the suitability of the material for each
17 project as it arises?
18 A. Yes.
19 Q. And that it would be wrong to assume the suitability of
20 a product purely based on its wide use or its
21 popularity?
22 A. Yes.
23 Q. Do you know the reason why Studio E specified the
24 Proteus HR panel in the NBS specification and ACM as one
25 of the alternatives?

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1 A. The Proteus was the preferred option.
2 Q. Yes.
3 A. And then I remember quite late there was the request of
4 including the ACM materials in the specification as
5 well.
6 Q. Indeed.
7 My question was: do you know why Studio E specified
8 the Proteus HR as the preferred option?
9 (Pause)
10 A. I think back then it would be probably based just on the
11 aesthetics.
12 Q. If you can turn the page to page 18 [SEA00014278/18] and
13 go to paragraph 69 of your statement, you say there:
14 "I do not recall us discussing the Reynobond and
15 Alucobond products ..."
16 Do you see that?
17 A. Yes.
18 Q. You go on to say:
19 "... or which type of ACM core we should use (i.e.
20 polyethylene (PE), Fire Resistant (FR) or A2
21 (ie a non-combustible core) while I worked on the
22 Project."
23 Do you see that?
24 Then you go on to say:
25 "We [and I emphasise the word 'we'] included

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1 Reynobond and Alucobond as alternative cladding
 2 materials in the NBS Specification but I cannot recall
 3 exactly how this decision was made. I think it may have
 4 been made before I became involved in the Project, or
 5 following Bruce's conversation with the planner, as
 6 referred to at paragraph 67 above."
 7 When you say "We included Reynobond" in the third
 8 line of that paragraph, as you do, who did you mean by
 9 "we"?
 10 A. Me and Bruce or, like, the team at Studio E.
 11 Q. Right.
 12 Do you think it was your decision backed up by
 13 Bruce, or was it Bruce's decision backed up by you? Who
 14 made the primary decision here?
 15 A. It would come to me from Bruce.
 16 Q. Do you remember Bruce telling you or in some way
 17 communicating with you the --
 18 A. Yes.
 19 Q. -- decision? When was that, do you think?
 20 A. I really do not recall.
 21 Q. Right.
 22 Can we next turn to the NBS specification and look
 23 at it, where we will see the specification of the
 24 cladding panels in that document. So that's where we're
 25 going, Mr Rek. This is {SEA00000169/65}.

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1 You can see that at 65 we have types of rainscreen
 2 cladding at the top of the page, and this is within H92,
 3 which you can see from the bottom of the page.
 4 At the top we get paragraph 120, and then if you
 5 turn the page to page 66 {SEA00000169/66}, you can see
 6 123. Do you see that?
 7 A. Yes.
 8 Q. You can see there that Proteus HR honeycomb rainscreen
 9 panel has been specified.
 10 Who actually inputted the data into the NBS
 11 specification so that the Proteus HR honeycomb would
 12 appear?
 13 A. I believe that would have been me.
 14 Q. Do you agree with me that that is an example of
 15 a proprietary specification in this part of the NBS; in
 16 other words, specification of a particular product by
 17 name?
 18 A. Yes.
 19 Q. And that the contractor is required to supply and
 20 install Proteus HR subject only to the discretion to
 21 propose similar or equal products?
 22 A. Yes.
 23 Q. Just to make that good, can I ask you to go back to
 24 page 64 {SEA00000169/64}, please, and look at the top of
 25 the page, just to make sure you have those words clearly

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1 in front of you:
 2 "To be read with preliminaries/general conditions.
 3 "Notwithstanding the descriptions of workmanship in
 4 various parts of the NBS/NES; the contents ..."
 5 Et cetera.
 6 Then second bullet point:
 7 "The manufacturers within this specification are
 8 indicative and may be substituted with similar or equal
 9 alternatives."
 10 So that was clear to you, was it?
 11 A. Yes.
 12 Q. That the contractor was required, if they were going to
 13 deviate from Proteus HR, only to propose similar or
 14 equal products?
 15 A. Correct.
 16 Q. Yes.
 17 Can you explain why that approach was adopted in the
 18 NBS specification?
 19 A. Well, I believe there are two aspects to it: one, the
 20 decision on the specific materials hasn't been reached
 21 together with the planners and the client; and, second,
 22 the specialist subcontractor would be developing the
 23 detailed design and they might have some objections to
 24 the selected materials, and they should be -- should
 25 have the freedom to suggest alternative, to --

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1 Q. Why would Harley -- well, why would any specialist
 2 subcontractors -- because it wouldn't necessarily be
 3 Harley at that stage, of course -- object to the use of
 4 Proteus HR honeycomb as the rainscreen material?
 5 A. Could be on several grounds, complexity or buildability,
 6 costs, availability.
 7 Q. Did the flexibility that you were building into the NBS
 8 specification by the ability for the subcontractor to
 9 propose alternative materials extend to anything other
 10 than aesthetics or cost?
 11 A. Yes, I believe so.
 12 Q. What?
 13 A. Any concern they might have, I wouldn't foresee,
 14 I mean ...
 15 Q. Okay.
 16 Can I ask you to go to page 64 of the NBS spec,
 17 {SEA00000169/64}, at paragraph 11. We're still on it:
 18 "Information to be provided with tender."
 19 You can see that it says there:
 20 "In addition to the cladding specified in the below
 21 clauses 120 & 123 submit comparative supply and install
 22 costs per m2 of the whole cladding system for the
 23 following alternative materials."
 24 Then there are three set out: there is Reynobond
 25 Duragloss 5000 with three different finishes; Alucobond,

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1 which is Spectra, Sakura 917; and then zinc, quartz zinc
 2 composite polymer panel by VM Zinc.
 3 "Note: Face fastened solutions permitted."
 4 Do you see that?
 5 A. Yes.
 6 Q. So the requirement there was to provide quotations; yes?
 7 A. Yes.
 8 Q. Did you draft that in there, do you think?
 9 A. Yeah, would be me typing it in, yeah.
 10 Q. Is it your understanding that, as drafted, this wasn't
 11 supposed to entitle the contractor to choose those
 12 products; the contractor had to use Proteus HR or
 13 a similar or equal alternative?
 14 A. I'm sorry, say it again.
 15 Q. Was it your understanding that, as it was drafted, this
 16 didn't entitle the contractor to choose those products
 17 just if it wanted to; it would have to provide
 18 a quotation, but had to use Proteus HR as a prescribed
 19 product or any product that was similar or equal as
 20 an alternative?
 21 A. Yes, that would be my understanding.
 22 Q. Yes.
 23 Now, we don't see any explanation in the NBS
 24 specification of what "similar or equal" as
 25 an alternative is.

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1 Why is there no definition of that phrase?
 2 A. That's a good question that I don't have an answer for.
 3 Q. Okay. Similar or equal in what respects, did you
 4 intend?
 5 A. All different aspects of performance of the material.
 6 But, yeah, it's probably not clearly defined.
 7 Q. Yes, I see.
 8 Did Studio E consider that Reynobond or Alucobond,
 9 two out of the three materials we see in paragraph 11 on
 10 page 64 there, were products which were similar or equal
 11 as alternatives to Proteus HR?
 12 A. I don't know.
 13 Q. Did you ever go through the thought processes of how it
 14 could be that you would be saying Proteus HR or
 15 something that's similar or equal, but also ask for
 16 quotations of Reynobond and Alucobond?
 17 A. I remember being tasked with putting this clause in, and
 18 exactly this wording. It wasn't my decision on the
 19 wording.
 20 Q. Would you agree that Studio E, by using this wording
 21 under 11, had given the contractor a choice to use
 22 a product that was perhaps visually similar to
 23 Proteus HR honeycomb, but actually might be a less safe
 24 product in terms of fire performance?
 25 A. Yeah, I guess the focus was on the visual aspect.

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1 Q. Can I ask you to just focus on clause 11 for the moment.
 2 We can see the alternative product, Reynobond
 3 Duragloss 5000 and then the three different options.
 4 I showed you those before a moment ago, but I just want
 5 to focus in a little more detail on the first bullet
 6 point:
 7 "Metallic std and non-std (Satin gloss)."
 8 What did standard and non-standard mean or denote?
 9 A. I don't know.
 10 Q. Can I just be clear: it was you who put this into the
 11 NBS spec, wasn't it?
 12 A. Well, we put it in there together with Bruce, and
 13 I don't know whether I received a list which I was
 14 supposed to include, I don't know whether the selection
 15 of the materials -- where it originated.
 16 Q. Right. So you can't help us identify where standard and
 17 non-standard comes from, is that what you are saying?
 18 A. I can't recall, looking at it now, no.
 19 Q. Right. Okay.
 20 Can I then take you to a document {INQ00011336}.
 21 What this is I'll just explain when we see it. This is
 22 a list of manufacturers of rainscreen cladding panels
 23 which was available on the NBS Plus product database as
 24 at November 2013.
 25 Do you know what I'm talking about when I refer to

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1 the NBS Plus product database?
 2 A. Yes.
 3 Q. Okay. Just have a look at that list, if you would. It
 4 is actually the first of two pages I want to show you,
 5 but this is the first page.
 6 If you look down it, you can see that there is
 7 a list of logos of manufacturers and then the
 8 manufacturers identified, and then the products that
 9 they make. Do you see that?
 10 A. Yes.
 11 Q. We can cast our eye down there, and then we can look at
 12 the next one.
 13 Just on this one, do you agree that there is no
 14 reference to Reynobond or Alucobond or, indeed,
 15 Proteus HR in that list?
 16 A. No, I can't see it, no.
 17 Q. No.
 18 Can I ask you, then, to look at the second page of
 19 the list, or second list, {INQ00011345}. You can see
 20 again, this is a list of products. It comes from the
 21 same source, the NBS Plus product database as at
 22 November 2013.
 23 Looking down that list again, do you agree, again,
 24 there is no reference there to Reynobond, Alucobond or
 25 Proteus HR?

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1 A. Yeah, I can't see it .
 2 Q. No. I mean, there is a reference there to VMZinc at the
 3 very bottom of that page. Do you see that?
 4 A. Yes.
 5 Q. And you can see "VMZ Composite".
 6 Do you remember looking at these lists at the time
 7 that you drafted paragraph 11 on page 64 of the NBS
 8 specification ?
 9 A. No.
 10 Q. Did you check those lists at the time in order to make
 11 sure that what you were proposing expressly as
 12 alternatives to the Proteus HR were at least included on
 13 the manufacturers lists ?
 14 A. No.
 15 Q. Why is that?
 16 A. I was in direct contact with the manufacturer, KME, and
 17 I saw the product.
 18 Q. Right. What about Reynobond and Alucobond?
 19 A. My recollection is that I was told that these products
 20 should be included for costing purposes.
 21 Q. Told by whom?
 22 A. By Bruce.
 23 Q. Do you remember when you were told by Bruce that you
 24 should include those products, Reynobond and Alucobond,
 25 for costing purposes?

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1 A. I might be wrong, but I think the inclusion of the
 2 alternatives came into the specification quite late .
 3 Q. Quite late, okay. Just to be clear, quite late in
 4 your --
 5 A. Might be in November.
 6 Q. Right. Okay.
 7 A. But I don't know.
 8 Q. I'm going to change topic now, Mr Rek, and go to the
 9 subject of the crown. When I say the crown, I mean the
 10 architectural feature at the head of the building.
 11 A. Yes.
 12 Q. It's right, isn't it, that by the time Studio E got to
 13 the tender stage, which was late 2013 and then after you
 14 left, early 2014, but at the time you left, no detailed
 15 design work had been carried out on the crown?
 16 A. Yeah, not to my recollection. I remember working on
 17 alternatives .
 18 Q. Let's look at the NBS specification. If you can go to
 19 {SEA00000169/67}, please. Just to focus on the date of
 20 this document, as we did before, this is
 21 30 January 2014, so this is after you left, and at the
 22 bottom of page 67 you can see it says at paragraph 130:
 23 "Major non-standard components 'crown'.
 24 "Manufacturer: TBC.
 25 "- Product reference: TBC.

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1 "Finish: TBC.
 2 "Fixing:
 3 "As recommended by panel manufacturer to suit
 4 environmental conditions."
 5 And there are some details under that, and we can
 6 see the last bullet point:
 7 "Other requirements: Include products, fixings and
 8 interfaces necessary to complete the fabrication and
 9 installation ."
 10 Do you see that?
 11 A. Yes.
 12 Q. It's right, then, isn't it, that, in effect, questions
 13 about the design, the material, the finish, the fixing,
 14 were all left over until after the NBS specification had
 15 been completed and sent out to tenderers?
 16 A. Yes, that's the --
 17 Q. Right.
 18 If we look at an earlier version of the NBS
 19 specification, this is {SEA00000152}. This is the
 20 version dated 21 November 2013, which you get from the
 21 very top of page 2 {SEA00000152/2}, if I could just ask
 22 you to be shown that. Thank you. You can see that.
 23 So this is at a time of your involvement in the
 24 development of the specification, and just to orientate
 25 you in the chronology, this was the draft that was the

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1 draft before the 29 November version a week later or so,
 2 which was eventually issued to tenderers. Does that
 3 make sense to you?
 4 A. Yeah.
 5 Q. Okay. Do you remember who was sent this first draft of
 6 the NBS specification?
 7 (Pause)
 8 A. I do not recall .
 9 Q. Can I ask you to look at page 81 {SEA00000152/81},
 10 please, in the first draft of the NBS specification, and
 11 I want you to look at paragraph 130. It says:
 12 "Major non-standard components 'crown'.
 13 Do you see that?
 14 A. Yes.
 15 Q. It looks, if we look at it together, as if VMZinc had
 16 been specified as the manufacturer and a specific
 17 product there, VMZinc Composite, and material, two
 18 sheets of zinc half a millimetre thick thermo-glued on
 19 either side of a mineral-rich polyethylene core; do you
 20 see that?
 21 A. Yes.
 22 Q. "Thickness: 4 mm.
 23 "Finish: Quartz-Zinc, pre-weathered."
 24 Did you draft that detail, do you remember, into
 25 this earlier version of the NBS specification?

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1 A. I don't remember.
 2 Q. Who else would it have been at this stage, third week of
 3 November, if not you, Mr Rek?
 4 A. It might have been whoever was working on that NBS
 5 specification before me.
 6 Q. I see. So are you saying that it's possible -- but
 7 don't speculate -- that this was already in the draft
 8 specification before you came to it to develop it from
 9 September onwards?
 10 A. I don't know.
 11 Q. When you came to develop the NBS specification, did you
 12 look at this part of it under the crown, paragraph 130?
 13 A. Sure.
 14 Q. Did you appreciate at that time, and perhaps even this
 15 time, 21 November 2013, that it contained a reference to
 16 a mineral-rich PE core?
 17 A. Yeah, I can see it.
 18 Q. Yes. Did it ring a bell with you at the time?
 19 (Pause)
 20 A. I can't recollect.
 21 Q. Do you have a recollection of what mineral-rich might
 22 have meant to you?
 23 A. Some sort of additive to -- yeah, to the polyethylene
 24 core. Probably something to do with better fire
 25 performance.

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1 Q. Right.
 2 A. But I don't know whether that's my assumption now or my
 3 knowledge now or whether I --
 4 Q. Right.
 5 A. -- had an assumption back then.
 6 Q. Just to be clear, do you have a recollection of yourself
 7 proposing that the crown should comprise a material
 8 which had a mineral-rich, in other words fire retardant,
 9 core?
 10 A. If it was me typing it in, I probably would have taken
 11 the wording word by word from the manufacturer's
 12 website.
 13 Q. Do you remember, just building on that answer -- and
 14 I appreciate you said "probably" -- who would have
 15 suggested to you that in the crown you should be using
 16 a panel which had a mineral-rich polyethylene core, or
 17 was it something you came up with yourself?
 18 (Pause)
 19 A. I seriously don't recollect.
 20 Q. If you can't --
 21 A. No.
 22 Q. Mr Rek, if you can't remember -- and I do appreciate
 23 this was a long time ago -- then you can't. I just want
 24 to explore what you do remember of that.
 25 Let's just have a look, if we can, very briefly,

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1 because this might trigger a recollection, at
 2 {INQ00011349}, please. This is the VMZ Composite
 3 product information which was available in the NBS Plus
 4 section of the NBS database in November 2013.
 5 Can I ask you, please, just to look at the first
 6 paragraph:
 7 "VMZ Composite is a multilayered panel made up of
 8 two sheets of zinc that are 0.5 mm thick and
 9 thermo-glued on either side of a 3 mm thick mineral-rich
 10 polyethylene core for optimum reaction to fire. It is
 11 manufactured using tested Alcoa Architecture Products
 12 technology."
 13 Then it says in the third paragraph in the second
 14 sentence:
 15 "Can be installed in cassettes or
 16 riveted/screwed-down sheets."
 17 Then under "Advantages", fifth bullet point down,
 18 "Fire Retardant core"; do you see that?
 19 A. Yes.
 20 Q. Does that trigger a recollection? Was that something
 21 that you saw at the time when preparing the NBS
 22 specification, do you think?
 23 A. It doesn't trigger a recollection.
 24 Q. Okay.
 25 Let's move on in time a week or so and look at the

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1 next version of the NBS specification. That's
 2 {SEA00000153}. I would ask you to look at page 66
 3 {SEA00000153/66}, please, of that document.
 4 Sorry, I should just be clear with you. Top of
 5 page 2 {SEA00000153/2}, we see the date again:
 6 29 November 2013.
 7 Looking at page 66 at the bottom, clause 130, "Major
 8 non-standard components 'crown'", here we see this has
 9 now been changed and is like the version we saw at the
 10 start, the version of 30 January. We now see it says:
 11 "Manufacturer: TBC.
 12 "- Product reference: TBC.
 13 "Material: TBC.
 14 "Finish: TBC.
 15 "Fixing ..."
 16 Et cetera.
 17 Now, as I say, we have looked at the third and final
 18 version of this document in January 2014 at this point,
 19 clause 130, and it's the same.
 20 My question is: can you explain why the VMZ product
 21 with the mineral-rich core appeared in the
 22 21 November 2013 version of the NBS specification under
 23 clause 130, but by 29 November 2013, the contents of
 24 clause 130 just said "TBC" for the crown and left the
 25 details blank?

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1 A. Well, I remember the design of the crown went through
 2 many iterations of different proposals, mainly based on
 3 looks. We then selected the Proteus product for the
 4 main elements of the façade, and I don't know whether we
 5 considered Proteus not potentially being suitable for
 6 the crown, and maybe didn't want to mix VMZinc product
 7 with the Proteus, and therefore left it to be confirmed,
 8 because at the time we were not sure how the crown was
 9 going to look like, whether it's going to be folded
 10 panels or just flat panels.
 11 Q. Do you remember being involved in any discussion within
 12 Studio E about changing the specification of VMZinc with
 13 the mineral-rich core for the crown to the blanks that
 14 we see in the 29 November version?
 15 A. I do not recall. What I've just said is my
 16 assumption --
 17 Q. Right, okay.
 18 A. -- of how the events could have occurred.
 19 Q. Right, okay.
 20 I'm now going to turn to a different topic, which is
 21 cavity barriers, and I'm going to ask you about the
 22 design of the cavity barriers in the façade. That is
 23 something that you cover yourself in your witness
 24 statement at section G, Mr Rek --
 25 A. Yes.

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1 Q. -- from page 30 onwards {SEA00014278/30}.
 2 Can I just ask you: generally, were you aware of the
 3 functional requirement B3 of the Building Regulations at
 4 the time you started the design for Grenfell Tower?
 5 A. I guess I was aware of its existence.
 6 Q. Right.
 7 Were you in particular aware of the guidance
 8 contained in Approved Document B at paragraph 9 and
 9 diagram 33 about cavity barriers?
 10 A. Is that the section through the building ...?
 11 Q. It is.
 12 A. Okay, yeah.
 13 Q. If you want, we can have it up on the screen, but
 14 I think you say you were aware of it?
 15 A. Yeah.
 16 Q. Okay.
 17 Perhaps we ought to go to diagram 33, please. That
 18 is at {CLG00000224/82}, please.
 19 A. Yes.
 20 Q. If you go to page 82, you can see that the diagram that
 21 we're referring to, "Provisions for cavity barriers".
 22 Starting at the top of the page, top of the diagram,
 23 "Close top of cavity". Do you see that?
 24 A. Yes.
 25 Q. You can see that you're supposed to put a cavity barrier

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1 at the top of a cavity where it says "Close top of
 2 cavity"; yes?
 3 A. Yes.
 4 Q. Was that what you understood at the time?
 5 A. I would have seen this diagram, I guess, yeah.
 6 Q. Do you think you actually looked at it at the time?
 7 A. I ... I can't recall.
 8 Q. If you also look down below "Close top of cavity" at
 9 "Compartment floor", with the arrow there, you can see
 10 that you're supposed to put a cavity barrier where it's
 11 indicated; yes?
 12 A. Yes.
 13 Q. Yes, and then also "Close around openings" where the
 14 window is indicated.
 15 A. Yes, I can see that.
 16 Q. If you go to paragraph 9.3, which is on page 83
 17 {CLG00000224/83}, you can see that the guidance says, if
 18 you just turn the page:
 19 "Cavity barriers should be provided to close the
 20 edges of cavities, including around openings."
 21 Do you see that?
 22 A. Yes.
 23 Q. Did you think at the time that the guidance was
 24 sufficiently clear to you that you needed cavity
 25 barriers around openings as indicated on diagram 33?

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1 A. When I read it now, it looks clear, yeah.
 2 Q. But if you read it at the time, was it clear to you
 3 then?
 4 A. I don't recall reading it, or how much I read.
 5 Q. Okay.
 6 Do you remember having the thought process at the
 7 time that windows, and specifically the windows in the
 8 cladding system at Grenfell Tower, would constitute
 9 openings in the external wall which would require cavity
 10 barriers around them?
 11 (Pause)
 12 A. I don't recall my thought processes.
 13 Q. Right.
 14 When you started your work on the design work on the
 15 Grenfell Tower project, do you remember thinking about
 16 whether you needed to put cavity barriers around the
 17 windows in the proposed overlcladding structure?
 18 (Pause)
 19 A. I don't recall.
 20 Q. Right.
 21 Let me try two things, then, on Approved Document B
 22 while we have it here.
 23 Could I ask you, please, to look at page 96
 24 {CLG00000224/96} of this document, which is 12.8 of
 25 Approved Document B, "Cavity barriers", and it says, if

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1 you just read with me:
 2 "Cavity barriers should be provided in accordance
 3 with Section 9."
 4 If you look at section 9 -- we have just looked at
 5 the start of it. Perhaps we can go back to section 9 on
 6 page 83 {CLG00000224/83}. That's 9.3, perhaps go back
 7 one page to 82 {CLG00000224/82} again, which has
 8 diagram 33 on it. Looking at 9.1:
 9 "Concealed spaces or cavities in the construction of
 10 a building provide a ready route for smoke and flame
 11 spread. This is particularly so in the case of voids
 12 in, above and below the construction of a building, e.g.
 13 walls, floors, ceilings and roofs. As any spread is
 14 concealed, it presents a greater danger than would a
 15 more obvious weakness in the fabric of the building."
 16 Was that a principle with which you were familiar at
 17 the time of your involvement on the design of the
 18 Grenfell Tower overcladding structure?
 19 A. I don't know whether my familiarity coincided with that
 20 time of working on Grenfell.
 21 Q. In general terms, would you agree that cavity barriers
 22 were required to prevent the passage of fire within
 23 a cavity, and also to inhibit fire spread into the
 24 cavity?
 25 A. Whether that was my understanding back then?

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1 Q. Yes. Exactly. That's the question.
 2 A. I don't know.
 3 Q. Okay.
 4 Was it part of your role to consider and update the
 5 drawings to show the location of cavity barriers?
 6 A. Yes.
 7 Q. What did you do to update the drawings to show the
 8 location of cavity barriers, do you remember, in general
 9 terms?
 10 A. Well, that's a part which puzzles me because I've
 11 included cavity barriers in line with the compartment
 12 walls and floors, and I remember being told that they
 13 need to be certain fire resistance. The problem is
 14 I don't remember who told me.
 15 Q. Right.
 16 Let's look at Mr Sounes' witness statement. He's
 17 already put this into evidence, so I can show this to
 18 you. This is {SEA00014273/112}, paragraph 267. This is
 19 his recollection I'm going to show you. He says:
 20 "I have no recollection of how the judgement as to
 21 the placement of cavity barriers on the Typical Bay
 22 Drawing was arrived at."
 23 Do you see that? Then he says over the page
 24 {SEA00014273/113}:
 25 "I note that cavity barriers are not shown on the

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1 draft Typical Bay Drawing dated 24 September 2013, which
 2 states 'provision of cavity fire barrier TBC', but they
 3 are present on the version dated 25 September 2013 ..."
 4 Then he goes on to say what he says, and says in the
 5 last part of that last sentence:
 6 "... I believe that the location of the cavity
 7 barriers must have been determined with specialist
 8 input."
 9 That's his recollection.
 10 Now, can I just show you what you say in your
 11 statement. If you go to paragraph 124 on page 30,
 12 that's {SEA00014278/30}, under the heading "Cavity
 13 barriers" at part G, you say there:
 14 "In the NBS Specification we specified Lamatherm ...
 15 cavity barriers, which were manufactured by Downer
 16 Cladding Systems Limited. I do not recall how Studio E
 17 sourced these cavity barriers but my drawings show
 18 cavity barriers at the floor and party walls. I think
 19 I discussed cavity barriers with Harley but they may
 20 have been included in our drawings before Harley and
 21 Studio E were in contact in autumn 2013."
 22 So that's your recollection.
 23 Do you recall discussing cavity barriers with
 24 Harley, where they should go around the windows?
 25 A. No, I don't recall that.

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1 Q. So when you say "I think I discussed cavity barriers
 2 with Harley" --
 3 A. If I'm not wrong, they were on the drawings I sent them.
 4 Q. Right. I see.
 5 Now, if you go then to paragraph 125, you say:
 6 "I do not recall discussing the fire performance of
 7 the cavity barriers and where they should be located."
 8 Can you remember why you had to have a discussion at
 9 all with them, instead of just reading and applying
 10 Approved Document B?
 11 A. Discussion with Harley about the --
 12 Q. Yes. Or indeed with anybody.
 13 (Pause)
 14 A. I don't know how did I arrive to the need of
 15 investigating with someone else what sort of fire cavity
 16 barrier needed to go into the construction. But if
 17 I discussed it later at a meeting with Harley, I think
 18 back then we would just bring it to their attention that
 19 there are some, and that there is a difference between
 20 the vertical and the horizontal cavity barriers. One of
 21 them touch the back of the rainscreen cladding, one of
 22 them don't, I think. But it's not my clear
 23 recollection.
 24 Q. Just to go back to a question before: do you recall
 25 having a discussion with Harley or, indeed, with anybody

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1 else about whether there should be cavity barriers
 2 around the windows?
 3 A. I don't recall on the Grenfell project, but I had
 4 an experience after Grenfell where discussion was held
 5 about fire cavity -- cavity barriers around windows and
 6 whether they should be or shouldn't. It was on that
 7 Bromley South Central.
 8 Q. Can I ask you to go to {EX000000586}. This is an email
 9 from you to Mr Ashton on 4 November at the head of
 10 an email string, and I just want to look at the bottom
 11 of page 1 of that email string, where you send him
 12 an email on 1 November 2013:
 13 "Re: Grenfell - Drawings in progress
 14 "Evening Terry,
 15 "Can you please confirm that the rainscreen cavity
 16 fire barriers are to be 60min FR to match the
 17 compartmentation?"
 18 Do you see that?
 19 A. Yes.
 20 Q. Before you sent that email, had you checked Approved
 21 Document B?
 22 A. I don't recall specifically .
 23 Q. You see, what I'm interested in is why you asked the
 24 question.
 25 A. Yeah.

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1 Q. Was it not clear to you at the time that cavity barriers
 2 themselves only required 30 minutes' fire resistance and
 3 15 minutes' integrity?
 4 A. That would make sense, yes.
 5 Q. It would make sense that, what?
 6 A. I probably referred back to the approved document, but
 7 I can't recall. There must have been a conflict between
 8 what I was advised, which I don't know by whom -- it
 9 might have been, actually now looking at it, Lamatherm
 10 themselves giving me advice or -- I have no idea. But
 11 there must have been a conflict, since I approached
 12 Terry.
 13 Q. A conflict between what, do you remember?
 14 A. Between the fire resistance requirement I was told these
 15 should have and another source which was telling me,
 16 which might have been the approved document, that the
 17 fire resistance doesn't have to be that onerous.
 18 Q. I see. Okay. We may come to unlock that conundrum in
 19 a moment. Let me just see how we get on with that
 20 email, then.
 21 He comes back to you on 4 November at 9.05:
 22 "Tomas
 23 "Cavity barriers need only have a 30 minute standard
 24 of fire resistance."
 25 Do you see that?

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1 A. Yes.
 2 Q. That is in fact what you ended up specifying in the NBS
 3 specification, wasn't it?
 4 A. Yes.
 5 Q. Yes.
 6 Did you record that you had taken advice from Exova
 7 on this issue anywhere on the project file?
 8 A. No, and this email came to my attention quite recently,
 9 actually .
 10 Q. Right.
 11 Do you know why you wouldn't have recorded on the
 12 project file the fact that you had taken specialist
 13 external advice from Exova on this issue?
 14 A. I don't recall exactly how did we file emails, but there
 15 might have been an omission on my side on filing this
 16 email.
 17 Q. Where would you normally file it?
 18 A. As I said, I worked in other practices and every
 19 practice has a different filing system.
 20 Q. But at Studio E.
 21 A. Yeah, at Studio E.
 22 Q. When you were at Studio E, where would you have filed
 23 this so that other people looking at the advice taken by
 24 the Studio E team would know what advice had been taken
 25 from external advisers?

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1 A. By the external team or internal team within Studio E?
 2 Q. I'm not sure I understand the difference .
 3 A. Well, if it was just -- I don't know, was Bruce copied
 4 in? No.
 5 Q. No.
 6 A. I think it would be filed on a Studio E server so that
 7 email could be retrieved at a later --
 8 Q. My question was a broader one: did Studio E keep a
 9 project file where you would specifically file this
 10 email so that anybody looking at it would know that
 11 Studio E had taken expert advice from an external
 12 specialist?
 13 A. Any email that concerned the project would be filed .
 14 Q. Right.
 15 A. But this one obviously wasn't.
 16 Q. Now, we can see your question about 60 minutes. You
 17 didn't ask Mr Ashton where cavity barriers should be
 18 located, did you, as we can see? My question is: why is
 19 that?
 20 (Pause)
 21 A. I can assume I had a conversation with him over the
 22 phone before I -- I don't know.
 23 Q. Right.
 24 A. I don't know.
 25 Q. You say "I assume", but I'm not necessarily putting to

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1 you that you ever did ask him, I'm just asking why you
2 didn't in this email.

3 Do you remember, as you sit there today, actually
4 having a conversation with Mr Ashton about where cavity
5 barriers should go at this time?

6 A. I don't recall, and that's why this email came to me as
7 a bit of a surprise.

8 Q. Okay, all right.

9 Can I ask you, then, to move on to paragraph 125 of
10 your statement, which is at page 30 {SEA00014278/30}.
11 You say there:

12 "I do not recall discussing the fire performance of
13 the cavity barriers and where they should be located."

14 Then you go on to say four lines down:

15 "The name of the Lamatherm product that we
16 specified, namely CW-RSH60, suggests that it has 60min
17 fire resistance ('RSV60') but in the NBS Specification
18 we only required 30 min fire resistance ('30/30 to
19 BS476, Part 20:1987 and BS EN 1366-4:2006'). I cannot
20 explain the reason for this discrepancy. I do not
21 recall discussing the fire resistance of cavity barriers
22 with Harley, the SELLP design team or anyone else.
23 That, of course, does not mean it didn't take place."

24 Now, do you remember whether a conscious decision
25 was made to specify a cavity barrier product with

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1 a greater fire resistance than the minimum fire
2 resistance given by Approved Document B? Do you
3 remember that?

4 A. Yeah, I was acting on advice from someone.

5 Q. Right. Well, who told you or instructed you to do that?

6 A. To put cavity barriers in there at all?

7 Q. Yes. You say, "I was acting on advice from someone";
8 whose advice?

9 A. That's what I can't recall. I mean, I made
10 a speculation -- it may be in my statement somewhere --
11 it could have been building control, but I don't know
12 when I was in contact with them. I made a speculation
13 it could have been Exova, but now I'm thinking maybe it
14 could have been the manufacturer themselves.

15 Q. Yes, I see, okay.

16 Now, can I ask you to go to paragraph 126 of your
17 statement, just below. You refer there to a drawing of
18 a typical bay window, do you see that? You say it:

19 "... suggests cavity barriers at the window
20 reveals."

21 You see that?

22 A. Yes.

23 Q. Was it your intention, when inputting into these
24 drawings or updating them, to include cavity barriers
25 around the windows, namely at the head, the jamb and at

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1 the sill?

2 A. That I don't recall. I mean, this paragraph is
3 an assumption of what I thought about.

4 Q. I see, okay.

5 A. But it's not based on a specific recollection.

6 Q. Let's see how we go with some specific drawings.

7 Can I just show you two versions of the drawing you
8 refer to in this paragraph. I'm going to show you,
9 first of all -- and if we can have them up on the screen
10 at the same time, please, that would be very helpful --
11 {SEA00002155} and also {SEA00002163}.

12 Now, you can see that on the left-hand side we have
13 2155 and the right-hand side 2163.

14 Looking at 2155 to start with on the left, you can
15 see that on the right-hand side of that drawing, which
16 may have to be expanded, it says, "Cavity barrier TBC".
17 Do you see that?

18 A. Yes.

19 Q. Just the second entry down.

20 If you look at the drawing on the right-hand side of
21 the screen, 2163, we can see there that there is now
22 a cavity barrier in line with the compartment floor;
23 yes?

24 A. Yes.

25 Q. So is it fair to say that the second drawing is a more

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1 advanced version of the first?

2 A. Yes.

3 Q. Is it likely that you were the one who updated the
4 drawing?

5 A. Yes. Yes.

6 Q. Okay.

7 Did you discuss your work with anyone? Did you
8 discuss that amendment or addition with anybody?

9 A. I believe we reviewed the drawings with Bruce whenever
10 any material change has been done.

11 Q. Yes, I see.

12 We can see that cavity barriers are labelled on the
13 drawing, and the one on the right-hand side, it says, as
14 we see, "in line with the compartment floor structure".

15 A. Yes.

16 Q. We can also see the one on the left-hand drawings.

17 We don't, I think, see any cavity barriers around
18 the windows.

19 Again, was there any discussion about that when
20 these drawings were updated?

21 A. I don't recall discussions about that.

22 Q. Right.

23 Now, you say in your statement that you think there
24 are also cavity barriers below the window in the
25 so-called spandrel. I don't think we see that on the

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1 drawing, do we?
 2 A. It would be on the plan detail.
 3 Q. On the plan detail?
 4 A. Yes.
 5 Q. I see. So not the typical bay then?
 6 A. I thought the whole drawing was called typical bay, but
 7 we're looking at a section.
 8 Q. Let's pan out and perhaps look at that whole drawing.
 9 It's on the screen, I'm afraid, on only typical bay, but
 10 we need to pan out and see the whole thing. The trouble
 11 with that is that it becomes somewhat invisible.
 12 Perhaps if we look at 2163, the one on the right,
 13 have it alone on the screen and have it in plan, then we
 14 can see, perhaps, what you want to refer us to there.
 15 Can you show us where you think there was a cavity
 16 barrier below the window in the so-called spandrel?
 17 (Pause)
 18 A. Sorry, can you repeat the question?
 19 Q. Yes. Can you identify -- I know it's difficult because
 20 you don't have a pointer, and indeed nor do I --
 21 A. Yeah.
 22 Q. -- where on that drawing there was a cavity barrier
 23 below the window in the so-called spandrel panel?
 24 A. I would be referring to the detail number 2, "Proposed
 25 Plan - Cill Level". That would be where the column

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1 cladding meets the flat cladding of the cill panel.
 2 That part where there's that little notch, it's fully
 3 filled with insulation or something. It's not
 4 annotated.
 5 Q. I see. Would that be a vertical panel, a vertical
 6 cavity barrier, as opposed to a horizontal cavity
 7 barrier?
 8 A. Yes.
 9 Q. I see.
 10 A. But I don't know whether that's -- or the intention was
 11 that to be a cavity barrier.
 12 MR MILLETT: Mr Chairman, we are not going to finish this
 13 topic before the break, and because there is a little
 14 bit more detail to go, and I'm conscious of the time,
 15 I think now may be a convenient moment for a break.
 16 SIR MARTIN MOORE-BICK: How much longer do you expect to be?
 17 MR MILLETT: Looking at my notes, I would think no more than
 18 another 40 minutes or so.
 19 SIR MARTIN MOORE-BICK: 45, perhaps.
 20 MR MILLETT: Yes.
 21 SIR MARTIN MOORE-BICK: All right. Well, we will have
 22 a break now.
 23 Mr Rek, we will break now so we can all get some
 24 lunch.
 25 THE WITNESS: Okay, yes.

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1 SIR MARTIN MOORE-BICK: Please remember not to talk about
 2 your evidence or anything related to it while you're out
 3 of the room. I had hoped that you would finish this
 4 morning, but I am afraid counsel still have a few more
 5 questions for you.
 6 THE WITNESS: Of course.
 7 SIR MARTIN MOORE-BICK: But to judge by what Mr Millett has
 8 just said, perhaps not too many. We will see.
 9 All right, could you leave us now and come back at
 10 2.05, please.
 11 THE WITNESS: Thank you.
 12 SIR MARTIN MOORE-BICK: 2.05, please. Thank you.
 13 (1.05 pm)
 14 (The short adjournment)
 15 (2.05 pm)
 16 SIR MARTIN MOORE-BICK: All right, Mr Rek. Ready to carry
 17 on?
 18 THE WITNESS: Yes.
 19 SIR MARTIN MOORE-BICK: Good, thank you very much.
 20 Yes, Mr Millett.
 21 MR MILLETT: Thank you, Mr Chairman.
 22 Mr Rek, can I ask you, please, to be taken back to
 23 paragraph 126 of your statement on page 30
 24 {SEA00014278/30} and you say there in the second
 25 sentence:

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1 "I am however not entirely sure whether I was
 2 specifying cavity barriers as they are not annotated on
 3 the drawing and they seem to be filling the gap in the
 4 same manner also below the window, in the so called
 5 spandrel panel."
 6 Now, that being so, how would you expect
 7 a contractor or specialist cladding subcontractor to
 8 read this drawing, or the drawing you refer to, and
 9 identify where all of the cavity barriers are supposed
 10 to be?
 11 A. I wouldn't expect them to detect what I'm assuming here
 12 in my statement.
 13 Q. You wouldn't expect them to detect what you're assuming?
 14 So how would a specialist subcontractor read this
 15 drawing so far as cavity barriers are concerned?
 16 A. I think they would just read those which are annotated
 17 which are in line with compartment walls and floors.
 18 Q. Shouldn't you have labelled them?
 19 A. If that was my intention, for those to be cavity
 20 barriers, then yes.
 21 Q. Right. But you didn't, as we have seen?
 22 A. I didn't.
 23 Q. Is that because you didn't intend that there should be
 24 cavity barriers there?
 25 A. That I can't recall, and this paragraph which I'm

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1 reading now is an assumption of my thought process, but
 2 I don't have a recollection .
 3 Q. Still sticking with paragraph 126 of your statement, you
 4 say:
 5 "I also do not recall whether a continuous steel
 6 angle supporting the cill of the windows was deemed as a
 7 cavity barrier."
 8 Do you see that?
 9 A. Yeah.
 10 Q. Deemed by whom?
 11 A. I think that was me trying to dig into my thought
 12 process back then, looking at it from the perspective of
 13 my knowledge now, so ...
 14 Q. I see. So that's an element of hindsight, is it, in
 15 that?
 16 A. It's more a speculation of my thought processes could
 17 be --
 18 Q. Right. Let's have a look a bit further about this
 19 angle, because others have made something of it, and
 20 I just want to explore it with you.
 21 Can I ask you, please, to go to {CLG00000224/86},
 22 and I want you to look, please, at paragraph 9.13 of
 23 part B3 of ADB, "Construction and fixings for cavity
 24 barriers". Do you see that?
 25 A. Yes.

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1 Q. We can take this quickly. You can see that in the
 2 second paragraph it says:
 3 "Cavity barriers in a stud wall or partition, or
 4 provided around openings may be formed of:
 5 "a. steel at least 0.5mm thick;
 6 "b. timber at least 38mm thick;
 7 "c. polythene-sleeved mineral wool, or mineral wool
 8 slab, in either case under compression when installed in
 9 the cavity; or
 10 "d. calcium silicate, cement-based or gypsum-based
 11 boards at least 12mm thick."
 12 Do you see that?
 13 A. Yes.
 14 Q. "Note: Cavity barriers provided around openings may be
 15 formed by the window or door frame if the frame is
 16 constructed of steel or timber of the minimum thickness
 17 in a) or b) above as appropriate."
 18 Do you see that?
 19 A. Yes.
 20 Q. Is this the paragraph that you had in mind when drafting
 21 paragraph 126 of your statement --
 22 A. Yes.
 23 Q. -- when you refer -- it was, right.
 24 At the time, did you think to check this detail or
 25 anyone, or, as you are telling us now, is this really

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1 just a hindsight observation?
 2 A. That statement is just a speculation of what my thought
 3 processes could be, but I cannot recall whether I was
 4 familiar with this paragraph at the time of the Grenfell
 5 project. That knowledge might have come after.
 6 Q. I follow.
 7 A slightly different question: did anybody ask you
 8 to produce 1:5 drawings showing cavity barrier
 9 detailing?
 10 A. No. No.
 11 Q. If somebody had asked you -- and I appreciate this is
 12 a hypothetical question, Mr Rek -- would the detail of
 13 where the cavity barriers were to go be shown on such
 14 drawings clearly?
 15 A. I assume so, yeah.
 16 Q. Right.
 17 We discussed earlier on your exchanges with
 18 Mr Ashton in November 2013, and we looked at some of the
 19 emails before. Do you remember those from this morning?
 20 A. Yes.
 21 Q. When you had those exchanges with Mr Ashton at that
 22 time, what cladding drawings did you believe Exova had?
 23 (Pause)
 24 A. I believed they would have the overall elevations. I'm
 25 not sure whether Bruce would have shared the typical bay

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1 drawing I was working on, or whether Exova had the
 2 previous version. I don't know.
 3 Q. You don't know. Well, let me take that in stages.
 4 Did you have any discussion with Mr Ashton about
 5 what cladding drawings he did have at that time?
 6 A. I don't recall that.
 7 Q. Did you have any discussion with Mr Sounes about what
 8 drawings Mr Ashton had at that time?
 9 A. I don't recall that.
 10 Q. Okay.
 11 If they had no drawings, no cavity barrier drawings
 12 or cladding drawings, how could Exova give advice in
 13 relation to cavity barriers, did you think?
 14 (Pause)
 15 A. That's a good question I don't know the answer to.
 16 Q. Sticking with Exova for a moment, you saw, when we
 17 looked at the email of 5 November 2013 this morning --
 18 and we can go back to it if need be -- that you received
 19 Exova's most recent outline fire safety strategy; you
 20 recall that?
 21 A. Yeah.
 22 Q. Yes. Did you read it at that time?
 23 A. I don't have a specific recollection.
 24 Q. Do you remember that it said that in relation to
 25 requirement B4, "External fire spread", the proposals

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1 would not be affected by external fire spread, and I'm
 2 paraphrasing, but that this would be confirmed in
 3 a future analysis of the report?
 4 A. My recollection is really overshadowed by the several
 5 occasions I've seen it afterwards, so I ...
 6 Q. Right.
 7 Doing the best you can with your recollection ,
 8 Mr Rek, who was it within Studio E at the time who was
 9 responsible for liaising with Exova and getting any
 10 further future advice from them?
 11 A. I assume it would be the role of the project architect ,
 12 so Bruce.
 13 Q. Bruce Sounes, and anybody else?
 14 A. Well, then Bruce would ask me on an ad hoc basis to
 15 liaise on specific matters, like those fire plans and
 16 something he wouldn't manage to do himself.
 17 Q. Do you recall ever being asked by Mr Sounes specifically
 18 to chase up Exova in relation to a future report or
 19 future analysis in relation to the impact of the
 20 proposed cladding on external fire spread?
 21 A. No.
 22 Q. To be fair to you, you left in December 2013, and the
 23 report itself , when it came, was dated 7 November 2013,
 24 so the question has a necessarily limited timeframe, but
 25 I think the answer is no.

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1 A. No.
 2 Q. Okay.
 3 I am going to turn to a different topic now, namely
 4 insulation , and I'm going to ask you about the
 5 insulation specified in the overcladding system, which
 6 you address in your statement from section H onward,
 7 page 31 {SEA00014278/31} in the statement.
 8 Can we please turn to the NBS specification ,
 9 {SEA00000169/73}.
 10 Now, we can see there at paragraph 776, "Thermal
 11 insulation ", that the material is specified as:
 12 "Zero ODP rigid polyisocyanurate insulation board.
 13 BRE Green Guide rating A+."
 14 If you cast your eye down, you can see:
 15 "Manufacturer: Celotex ..."
 16 Do you see that?
 17 A. Yes.
 18 Q. A little bit below that, after the website reference:
 19 "Product reference: FR5000 aluminium foil faced both
 20 sides."
 21 Do you see that?
 22 A. Yes.
 23 Q. "Thickness: not less than 150mm for spandrel panels and
 24 80mm for columns.
 25 "- Required performance: Refer to clause 430."

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1 Was it you who inputted that data into the NBS
 2 specification , do you think?
 3 A. I'm not entirely sure whether that might have been in
 4 the spec already or whether I did.
 5 Q. Right.
 6 Again, doing the best you can with your
 7 recollection , where do you think you might have got that
 8 information from when inputting it into the NBS
 9 specification ?
 10 A. If I put it in there, it would have come from the
 11 stage D report. I know now I was probably exposed to
 12 a reference to it in Max Fordham's report.
 13 Q. Right.
 14 Let's go to {INQ00011333}. This is another
 15 screenshot from the NBS software, November 2013 version.
 16 We can see it there on the screen. If we can have it
 17 blown up, please, "H92 rainscreen cladding". Do you see
 18 that?
 19 A. Yes.
 20 Q. We can see that within it there is a section 776 which
 21 we have surrounded with a dotted blue line . Do you see
 22 that?
 23 A. Yes.
 24 Q. We have put an arrow in:
 25 "H92 Rainscreen Cladding Clause 776 Thermal

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1 insulation the User is editing."
 2 We have added that there.
 3 Just to ask you the questions about it , it's right ,
 4 isn't it , that there are insulation details which are
 5 left blank for the compiler of the specification to fill
 6 in?
 7 A. Correct.
 8 Q. When you select that section, 776, is it right that on
 9 the right-hand side a tab pops up -- G, "Guidance", and
 10 a tab H, "Manufacturers" -- such as you see on the
 11 right-hand side of the screenshot we have there on the
 12 screen?
 13 A. Yeah. I don't know whether it pops up automatically or
 14 whether you have to call it , but yeah. I'm aware it
 15 exists .
 16 Q. Okay, all right .
 17 Focusing on the H, "Manufacturers", you can see
 18 a list of manufacturers under tab H, can't you?
 19 A. Yes.
 20 Q. This list of manufacturers -- is this right? -- is
 21 derived from the NBS Plus database at the time?
 22 A. I believe so, yeah.
 23 Q. Yes, and if we turn then to {INQ00011366}, we can see
 24 that list a little bit more clearly, and if ,
 25 Mr Operator, you could expand that a bit . Thank you

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1 very much.
 2 We can see four manufacturers in there. We can see
 3 Kingspan Insulation there, with their Kooltherm K15
 4 rainscreen, and we see Knauf, Rockwool and Siderise. Do
 5 you see those?
 6 A. Yes.
 7 Q. Take this from me, please, Mr Rek, but we have been told
 8 by NBS that this was a list of the manufacturers that
 9 featured in the NBS box for H, "Manufacturers", as at
 10 November 2013 for the H92/776 section.
 11 Do you recall seeing that list at the time you put
 12 the NBS specification together?
 13 A. Don't recall that.
 14 Q. You can see from it -- we can look together -- there is
 15 no Celotex product listed there. There is no reference,
 16 for example, to FR5000, is there?
 17 A. Correct.
 18 Q. When you filled in -- and again, if you filled in, to
 19 the best of your recollection -- this part of the NBS
 20 specification dealing with insulation, did you notice
 21 that FR5000 wasn't on the list?
 22 A. I didn't notice.
 23 Q. Can you explain how the Celotex FR5000 came to be in the
 24 NBS spec if it wasn't in the list of manufacturers that
 25 would appear in the pop-up or screen that would appear

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1 when you clicked on it?
 2 A. Somebody would have manually typed it in.
 3 Q. Okay, let's proceed.
 4 Can I ask you, then, to look at {INQ00011342}.
 5 That, when it comes up, is a screenshot of a message
 6 that appears if you are within the H92 section of the
 7 NBS and you try and add Celotex FR5000 to that section
 8 by clicking on that product. That is what appears.
 9 Do you recall ever seeing a message like that when
 10 you put the NBS specification together?
 11 A. Not exactly this one. I remember seeing a similar
 12 notice when you were trying to actually alter the
 13 clauses which were pre-filled. I think if you have the
 14 option of clicking on the arrow and type something in,
 15 then --
 16 Q. Right.
 17 A. -- I don't think this would appear.
 18 Q. Okay.
 19 Take this from me -- although no doubt we can be
 20 corrected as an Inquiry if we're wrong about this --
 21 this is the screenshot of the message that appears if
 22 you try and put Celotex FR5000 into the section by
 23 clicking on that product or manually entering it. You
 24 get told that you're attempting to add the product to
 25 H92 and it's been authored for section P10.

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1 My question is: at the time, do you remember being
 2 told by the system, when putting FR5000 -- or trying
 3 to -- into H92, that that product had been authored for
 4 section P10, "are you sure you want to add it to this
 5 section?"
 6 A. I don't recall this screen.
 7 Q. My last question, I have been corrected. I added the
 8 word "manually" entering it.
 9 Rephrasing my question, then: if you click on the
 10 product, that message pops up, but you don't remember
 11 seeing that?
 12 A. No.
 13 Q. We will check out P10. If you go to {INQ00011341},
 14 that's P10, "Insulation fitted between rafters". Do you
 15 see that?
 16 A. Yes.
 17 Q. Do you recall ever being told that the insulation you
 18 were attempting to insert into the NBS specification was
 19 one for insulation fitted between rafters? Does this
 20 ring a bell with you?
 21 A. No. It doesn't.
 22 Q. Right. Can I ask you, please, to go to {INQ00011356}.
 23 These are notes that appear under the H92/776 section of
 24 the NBS. Can you look at "Material" with me, please:
 25 "Insulation attached to the outer face of a backing

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1 wall and facing the cavity should be non-combustible.
 2 Combustible insulation may have an appropriate spread of
 3 flame rating but must only be used with the inclusion of
 4 a separate fire barrier."
 5 Do you see that?
 6 A. Yes.
 7 Q. Do you recall reading that guidance at the time you were
 8 preparing the NBS specification?
 9 A. No.
 10 Q. At the time, did you consider whether the insulation
 11 that you were specifying, namely FR5000, was combustible
 12 or non-combustible?
 13 A. I don't recall that.
 14 Q. Can I ask you to go to {INQ00011351}. This is
 15 a close-up of 776.
 16 Now, am I right in thinking, coming back to manual
 17 entry, that it's possible simply to type into the blue
 18 boxes that we see there a product that you want?
 19 A. Yes.
 20 Q. It is?
 21 A. Yeah, that's my recollection.
 22 Q. So is it right that you can insert manually
 23 an insulation which is different to the four products
 24 listed in the pop-up screen for H4; we saw that?
 25 A. Yes.

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1 Q. Is that what you did, do you think, as far as you can
 2 remember, when you compiled the NBS specification when
 3 FR5000 went in?
 4 A. As I said, I'm not entirely sure it was me typing it in,
 5 but the person who did would do it this way.
 6 Q. Right. Who would that have been, other than you, do you
 7 think?
 8 A. I ... I don't know who worked on the specification
 9 before me. That would be a question for Bruce.
 10 Q. When you came to develop the specification, do you
 11 remember whether or not the specification for insulation
 12 in the cladding system had already been specified as
 13 FR5000?
 14 A. That's what I don't remember.
 15 Q. Do you remember ever seeing the little drop-down box
 16 which is shown here under "Manufacturer"? If you just
 17 look at it with me, you can see there is a little
 18 drop-down box that says "Mineral wool to BS EN 13162".
 19 Do you see that?
 20 A. Yes.
 21 Q. Do you remember ever seeing that when you were entering
 22 the insulation product into the NBS specification?
 23 A. Not specifically at this clause, but I know that feature
 24 existed --
 25 Q. You knew that --

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1 A. -- that prompts you to select from --
 2 Q. Right.
 3 A. -- some preselected products.
 4 Q. At the moment, the [draft] transcript of your last
 5 answer has an inaudible over what you said. Can I just
 6 get it right. I think you said you know that the
 7 feature existed because it prompts you to select from
 8 it; is that right?
 9 A. It gives you a choice, as it does here, but I'm --
 10 I don't have a specific recollection about this clause.
 11 Q. Right.
 12 A. I mean, generally, in general, in the NBS specification
 13 program, when you click on the arrow, as my recollection
 14 allows me to remember, it sometimes gives you a list
 15 which you can select from, or you can type over.
 16 Q. Right.
 17 Just so I've got your evidence clear, the little
 18 words in the box, "Mineral wool to BS EN 13162", did
 19 they appear automatically when you open up this part of
 20 the NBS specification in blank?
 21 A. I think you need to click on that arrow.
 22 Q. You need to click on the arrow, very good.
 23 So if you click on the arrow, does it mean that
 24 those words in the box are a prompt to specify mineral
 25 wool to that BS standard?

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1 A. I believe so, yeah.
 2 Q. Okay, thank you.
 3 So does that mean that if mineral wool to
 4 BS EN 13162 was not in the specification, somebody,
 5 whether it was you or somebody else, must have decided
 6 that it should not be mineral wool and have overridden
 7 it manually?
 8 A. Yes.
 9 Q. Thank you.
 10 You say at paragraph 136 of your witness statement,
 11 if we can just look at that, please, that's on page 33
 12 {SEA00014278/33}, you say:
 13 "Therefore, I would have expected tenderers to have
 14 ensured that insulation in walls above 18m complied with
 15 the specified CWCT performance requirements (ie were
 16 material of limited combustibility), before submitting
 17 their tender returns."
 18 It's right, isn't it, that either you or somebody
 19 else at Studio E specified that a particular product was
 20 to be used, namely Celotex FR5000?
 21 A. Yes.
 22 Q. So are you saying that you would have specified FR5000,
 23 or Studio E would have specified FR5000, but left it to
 24 tenderers to check that the FR5000 complied with the
 25 CWCT performance requirements?

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1 A. I mean, it was their obligation under the specification.
 2 You included that clause about compliance with CWCT to
 3 safeguard compliance with standards.
 4 Q. Well, just help me with this, and it may be that the
 5 decision to use FR5000 was before your involvement, we
 6 don't know, you can't recall, but is the effect of your
 7 evidence that you or somebody else at Studio E put
 8 FR5000 into the NBS specification but didn't check that
 9 it complied with the CWCT standard, which is the very
 10 standard that you were also specifying?
 11 A. I haven't done it. I haven't checked the compliance.
 12 Q. I understand that. But is the effect of what you're
 13 saying that you specify a product, you specify
 14 a standard, but you don't check whether the product
 15 complies with the standard, and you leave that to
 16 tenderers?
 17 (Pause)
 18 A. Yeah, I think the wording in this paragraph is a little
 19 bit confusing.
 20 Q. How would you like to rephrase it so it's not confusing?
 21 A. That I would expect the tenderers to -- yeah ...
 22 Q. I don't understand.
 23 A. To adhere to the specification, which included the
 24 reference to compliance with CWCT.
 25 Q. But what if the material you had specified did not

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1 comply with CWCT standard?
 2 A. Then a conflict would arise and that would have to be
 3 resolved.
 4 Q. How would that be resolved?
 5 (Pause)
 6 A. Well, by checking against that standard.
 7 Q. You see, what I'm trying to get at, Mr Rek, is how does
 8 it come about that you specify an insulation material,
 9 you specify a standard, the CWCT standard, but you don't
 10 yourself check that the material you're specifying
 11 complies with the CWCT standard? How does that come
 12 about?
 13 A. I mean, as I said, the selection of the insulation
 14 material has been done before my involvement, and, as
 15 I said, I didn't check its performance against the
 16 standard.
 17 Q. Well, I don't want to go over old ground, but who would
 18 it have been or who was it who inserted the
 19 specification of FR5000 into this NBS specification
 20 before you came on the scene?
 21 A. A member of the team in Studio E who was working on the
 22 specification before me. It could have been me, I can't
 23 recall.
 24 Q. Let's just press you a little bit, I am afraid.
 25 When you came into the project and you were told to

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1 do some pre-reading by Mr Stewart --
 2 A. Yes.
 3 Q. -- did he tell you who it was who had been inputting
 4 specifications into the NBS specification which he
 5 had asked you to develop before you came on the scene?
 6 A. He might have, but I don't recall.
 7 Q. Did you not make it your business to find out who it was
 8 who had been developing the NBS specification up to the
 9 point you took over?
 10 (Pause)
 11 A. Maybe I knew at the time, I just don't recall.
 12 Q. It would be logical, wouldn't it, if you were given
 13 a task to develop an existing specification, to talk to
 14 the person who had developed it up to that point, find
 15 out what they had done --
 16 A. Yes.
 17 Q. -- and see what more you needed to do; yes? You agree
 18 with me that that would have been logical; yes?
 19 A. Yes.
 20 Q. So my question is: do you remember who it was you would
 21 have spoken to, that being logical, in order to find out
 22 where that person had got to?
 23 A. I would definitely have a discussion with Bruce, and
 24 there were other two members of the team, Blaine and
 25 Paddy. I don't know whether I spoke to them.

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1 Q. Right.
 2 So, without labouring this, am I to take away from
 3 your evidence that you can't explain how it came about
 4 that FR5000 was specified and the CWCT standard was
 5 specified, but you certainly didn't check whether FR5000
 6 satisfied the requirements of the CWCT standard?
 7 A. That's correct.
 8 Q. Right.
 9 When you drafted -- if it was you -- the insulation
 10 section of the NBS specification, do you remember
 11 whether you sent it to Exova or Max Fordham so that they
 12 could comment on that aspect of the specification?
 13 A. I don't recall that.
 14 Q. Do you remember consulting any of the product
 15 information regarding Celotex FR5000?
 16 (Pause)
 17 A. No.
 18 Q. Let me give you a prompt and see if something triggers
 19 a recollection.
 20 Can you look at {CEL00000441}, please. Now, this is
 21 a datasheet from Celotex for FR5000.
 22 Does it ring a bell with you?
 23 A. It does now, but --
 24 Q. Did you see it at the time, do you think?
 25 A. I'm not entirely sure.

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1 Q. Right.
 2 Now, I want to go back, if I may, to the
 3 Hays Galleria meeting of 27 September 2013. Can I take
 4 you back to paragraph 26 of your statement, please, at
 5 page 9 {SEA00014278/9}. You say at the bottom of the
 6 page there that the meeting had been arranged by
 7 Mr Sounes "to discuss the cladding specification"; you
 8 see that?
 9 A. Yes.
 10 Q. Now, if you go forward in your statement to page 10
 11 {SEA00014278/10}, you can see paragraph 29, and that
 12 says:
 13 "I cannot recall the details of the [meeting] and
 14 I did not take a note of the meeting. If I received any
 15 hard copy material at the meeting it is probably lost.
 16 I cannot recall whether or not we discussed the
 17 suitability of PIR (polyisocyanurate) or rigid foam
 18 insulation."
 19 Do you see that?
 20 A. Yes.
 21 Q. Do you remember how developed the NBS specification was
 22 at that date? I think we touched on this earlier, but
 23 just asking that question again.
 24 A. I don't know. I think I've provided these two gentlemen
 25 with just the drawings --

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1 Q. Right.
2 A. -- before the meeting, so I don't have any evidence
3 showing to what state that specification was developed.
4 Q. No, indeed, and it was reasonably early on in your
5 involvement anyway.
6 A. Yes, yes.
7 Q. Do you remember whether there was any discussion of
8 fire safety or performance at that meeting?
9 A. I don't have a recollection about that.
10 Q. Do you remember whether there was any discussion at that
11 meeting with Harley in which you asked Harley to advise
12 on the suitability of FR5000?
13 A. I don't recall.
14 Q. So far as you recall, was there ever a discussion,
15 whether or not at the Hays Galleria meeting, where you
16 asked Harley to advise on or comment on the suitability
17 of FR5000?
18 A. I don't recall that.
19 Q. Right.
20 So does it come to this: that you or somebody within
21 Studio E was happy to insert FR5000 into the NBS
22 specification without taking the opportunity to ask
23 a specialist façade designer for their comments on the
24 suitability of that product?
25 A. Can you repeat that question?

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1 Q. Yes, certainly.
2 Does it come to this: that you or somebody within
3 Studio E was happy to insert FR5000 into the NBS
4 specification without taking the opportunity to ask
5 Harley, the specialist façade designer who had had the
6 meeting with you, for their comments on the suitability
7 of that product?
8 A. Well, I don't recall whether we discussed it or not.
9 Q. Right.
10 A. So I can't really make a statement on that.
11 Q. Did you ever discuss the fire rating or fire performance
12 of FR5000 with anybody at Studio E?
13 A. No, I don't recall that.
14 Q. Or anybody outside Studio E, leaving aside Harley?
15 A. My recollection is overshadowed by a later experience on
16 the other project where we had the same insulation.
17 Q. Okay.
18 Going back to the meeting at Hays Galleria, can
19 I just ask you to look again at Mr Sounes' witness
20 statement, this time paragraph 271. This is
21 {SEA00014273/114}. He discusses that meeting. I think
22 we looked at this a little bit before. Let's go back to
23 it. He says, paragraph 271, two-thirds of the way down
24 that approach:
25 "When I met Harley I believe I had a lingering

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1 uncertainty about PIR because this was a high-rise and
2 I had not been involved in a high-rise before. I
3 believe, but I cannot say for sure, that I asked Ray
4 Bailey a question about the acceptability of using rigid
5 foam insulation on a high-rise building, probably at the
6 end of the meeting. If I did, I don't recall he
7 provided a definitive response."
8 Do you recall or does what he says there trigger in
9 you a recollection about him asking Mr Bailey a question
10 about the acceptability of using a rigid foam insulation
11 on a high-rise building?
12 A. No.
13 Q. Right.
14 He refers to him having a lingering uncertainty
15 about PIR. Did he ever voice that uncertainty to you?
16 A. Not that I recall.
17 Q. Do you remember Mr Sounes ever expressly discussing with
18 you the history of or the reasons for the insertion of
19 FR5000 into the NBS specification or the selection of
20 FR5000 for use in this project?
21 A. I don't believe so, or I can't recollect.
22 Q. Can we look, please, at {SEA00014346}. This is an email
23 from you to Mr Sounes dated 25 October 2013, copied to
24 Paddy Glennon, and the subject is "BREEAM"; do you see
25 that?

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1 A. Yes.
2 Q. If you go to the second page of that, {SEA00014346/2},
3 it's quite a long -- well, it's an email at the top and
4 there are some details at the bottom of it. This is the
5 second page of that. If you look at "Mat 01
6 Environmental Impact of Materials", you see the third
7 entry down -- do you see that?
8 A. Yes, yeah.
9 Q. There's some blue italic writing. Question:
10 "Is there any record supporting the statement
11 above?"
12 Which is about 19 credits. Then underneath that, it
13 says:
14 "It also seems MF went for 'ott' U values to achieve
15 maximum credits available for Thermal Performance
16 Criteria which come to force if Green Guide Rating
17 credits do not manage [to] achieve the top 25 credits
18 available."
19 Do you see that?
20 A. Yes.
21 Q. That, I think, is something you wrote in the email,
22 isn't it?
23 A. Yes.
24 Q. It's your view you're expressing there.
25 "MF" is Max Fordham, I think; yes?

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1 A. Yes.
 2 Q. What did you know about the criteria or the instructions
 3 given to Max Fordham on which they were to suggest
 4 a target U-value?
 5 (Pause)
 6 A. Can you repeat the question?
 7 Q. Yes. What did you know about the criteria or the
 8 instructions given to Max Fordham upon which they were
 9 to suggest a target U-value?
 10 A. I didn't know anything about a criteria. I might have
 11 suspected retrospectively by reading the BREEAM document
 12 that there were -- there was a ... potential requirement
 13 to achieve a lot of credits by having a very low
 14 U-value.
 15 Q. Yes. But you have said that "MF went for 'ott'
 16 U values". What did you mean by "ott"?
 17 A. Over the top.
 18 Q. Yes, that's what I thought you meant.
 19 So if you didn't know what the criteria or
 20 instructions given to Max Fordham were, what was the
 21 basis for your saying that you thought they had gone
 22 OTT?
 23 A. I think I would make a reference to part L.
 24 Q. Was it your view that Max Fordham had set the U-value?
 25 A. I don't know what my opinion was, whether it was them or

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1 somebody else. Maybe the BREEAM consultant. I don't
 2 know.
 3 Q. I see.
 4 When you say that you thought that Max Fordham had
 5 gone for OTT U-values -- first of all, "went for", you
 6 say, they "went for 'ott' U values", what do you mean by
 7 that?
 8 (Pause)
 9 A. They -- I assume they tried to maximise the gain of
 10 BREEAM credits.
 11 Q. Right.
 12 When you say that they were OTT or over the top,
 13 what did you mean by that, that the U-values were OTT?
 14 A. I think I was making reference to the required U-values
 15 under the part L.
 16 Q. When you expressed the view that Max Fordham's U-values
 17 were OTT, did you check what the necessary or required
 18 U-values were by reference to ADL?
 19 A. I assume so.
 20 Q. You assume so; do you recall doing that?
 21 A. I think I otherwise wouldn't be able to make that
 22 statement.
 23 Q. I see.
 24 Do you remember having a discussion with Mr Sounes
 25 about your view that Max Fordham's U-values were over

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1 the top?
 2 A. I think we had a discussion, but the details of it
 3 I don't recall, I don't --
 4 Q. Do you remember what Mr Sounes said during that
 5 discussion? Perhaps you don't recall.
 6 Let me ask it this way: did Mr Sounes, do you
 7 recall, respond to your concern that Max Fordham's
 8 U-values were, you thought, over the top?
 9 A. I don't recall his response.
 10 Q. Did you appreciate at the time that the specification of
 11 the target U-value was a fundamental determinant of many
 12 of the design decisions that followed as to or about the
 13 overcladding scheme? Did you appreciate that?
 14 A. Well, it dictated the thickness of the insulation.
 15 Q. Yes.
 16 A. Therefore, it dictated the offset of the cladding from
 17 the backing wall, the bracketry system. Yeah, it had
 18 an effect.
 19 Q. Yes.
 20 Having expressed your concerns about Max Fordham's
 21 OTT U-values to Mr Sounes, did you take any other steps
 22 to address your concern that the U-values were over the
 23 top at any time prior to your departure from Studio E?
 24 A. I think I was explained that it was a requirement under
 25 the BREEAM target, and therefore the U-value was as low

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1 as practically possible.
 2 Q. Yes. You say that, but my question is different.
 3 My question is: having expressed your concerns as
 4 you did to Mr Sounes in the email that we've just looked
 5 at, did you take any other steps to address those
 6 concerns?
 7 A. Not further than this.
 8 Q. Right.
 9 A. As I remember.
 10 MR MILLETT: Yes, thank you very much, Mr Rek.
 11 Mr Chairman, I have come to the end of my questions
 12 for this witness, but it would be appropriate just to
 13 take a short break, just to make sure that I have
 14 covered everything that I need to cover in the usual
 15 way.
 16 SIR MARTIN MOORE-BICK: Right.
 17 Well, Mr Rek, it sounds as though counsel's reached
 18 the end of his questions, but sometimes it's necessary
 19 to have a short break so they can review the position.
 20 So I'm going to ask you to go with the usher, back to
 21 the witness room, I don't think for very long, but we
 22 will call you back as soon as we can.
 23 THE WITNESS: Sure.
 24 SIR MARTIN MOORE-BICK: All right?
 25 THE WITNESS: Yes.

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1 SIR MARTIN MOORE-BICK: Thank you very much.
 2 How long are you going to require, Mr Millett?
 3 MR MILLETT: Mr Chairman, as long as it takes me to review
 4 my notes and discuss the matter with others.
 5 SIR MARTIN MOORE-BICK: Right. Well, that shouldn't be too
 6 long.
 7 MR MILLETT: No, Mr Chairman. If we said ten minutes, and
 8 if we need longer, I can ... Well, it's up to you.
 9 SIR MARTIN MOORE-BICK: I will say no more than ten minutes,
 10 and if you are ready sooner, you can send word.
 11 MR MILLETT: Very good, thank you.
 12 SIR MARTIN MOORE-BICK: Thank you.
 13 (2.52 pm)
 14 (A short break)
 15 (2.59 pm)
 16 SIR MARTIN MOORE-BICK: Well, Mr Millett, do you have some
 17 more questions?
 18 MR MILLETT: One or two, Mr Chairman, in the usual way.
 19 SIR MARTIN MOORE-BICK: Could we ask Mr Rek to come back in,
 20 please.
 21 (The witness returned)
 22 SIR MARTIN MOORE-BICK: Mr Rek, I understand that counsel
 23 has a few more questions for you.
 24 THE WITNESS: Okay.
 25 MR MILLETT: Mr Rek, I wonder if I can just clarify

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1 something on the transcript which arose out of the
 2 discussion we were having about the U-values just before
 3 we finished your evidence.
 4 Can the witness please be shown [draft] page 128 of
 5 today's transcript at lines 16 to 18 {Day12/140:3-9}.
 6 I asked you a question at [draft] line 12, if you
 7 just look at it with me. I asked you:
 8 "Having expressed your concerns about Max Fordham's
 9 OTT U-values to Mr Sounes, did you take any other steps
 10 to address your concern that the U-values were over the
 11 top at any time prior to your departure from Studio E?
 12 "Answer: I think I explained that it was
 13 a requirement under the BREEAM target, and therefore the
 14 U-value was as low as practically possible."
 15 Then in brackets, "I was explained?"
 16 A. I was explained, yes.
 17 Q. So you had had it explained to you that it was
 18 a requirement under the BREEAM?
 19 A. Yes.
 20 Q. I see. Who explained that to you?
 21 A. I believe that would be Bruce.
 22 Q. I see.
 23 Was that after the email you had sent to him that we
 24 were looking at on 25 October 2013?
 25 A. It would be logical.

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1 Q. Yes, it would be, but what is your recollection?
 2 A. I don't have a recollection.
 3 Q. Right, okay.
 4 Just one or two more questions.
 5 Do you know how you were selected by others at
 6 Studio E to work on the Grenfell Tower project?
 7 A. How was I selected? I don't know.
 8 Q. Do you know how your qualifications made you suitable to
 9 work on this project, given that you had never been
 10 involved in an overlapping of a tower block before?
 11 A. I don't know how many people had that experience in
 12 Studio E, and I was a project architect on a previous
 13 job, being exposed to technical detailing of buildings.
 14 But I can't speak on behalf of Bruce and Andrzej or
 15 whoever made the decision.
 16 Q. All right.
 17 Finally, do you remember, casting your mind back to
 18 the Hays Galleria meeting, 27 September 2013, whether
 19 anybody at that meeting took a note of the meeting?
 20 A. Whether anybody took a note?
 21 Q. Yes.
 22 A. Again, I don't have a recollection, but it would be
 23 logical to scribble down notes.
 24 Q. Right.
 25 A. Yes.

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1 Q. So from the Studio E side, we know that you were there
 2 and Mr Sounes was there.
 3 A. Yes.
 4 Q. Again, rather than focusing on logic, I would rather
 5 work with your recollection, even though it may not be
 6 as perfect as logic.
 7 Who would it have been or who was it of the two of
 8 you who would have made a note? Or perhaps both of you?
 9 (Pause)
 10 A. I ... I don't recall. I can repeat what would be
 11 logical.
 12 Q. How long did the meeting last, do you remember?
 13 A. I think that would be less than an hour.
 14 Q. Right.
 15 Did you have a project notebook that you used for
 16 the Grenfell Tower project to note things down if you
 17 did want to?
 18 A. I think I would have a notebook.
 19 Q. Right.
 20 A. Yeah.
 21 MR MILLETT: Well, thank you very much, Mr Rek, I have no
 22 further questions for you.
 23 THE WITNESS: Okay.
 24 SIR MARTIN MOORE-BICK: Thank you, Mr Millett.
 25 MR MILLETT: I just want to say thank you very much for

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1 coming to the Inquiry and helping us with our
 2 investigations. We're very grateful to you, so thank
 3 you.
 4 THE WITNESS: Of course.
 5 SIR MARTIN MOORE-BICK: We certainly are. We are grateful
 6 to you, Mr Rek, because I gather you flew in from
 7 Denmark for the purpose; is that right?
 8 THE WITNESS: Yes.
 9 SIR MARTIN MOORE-BICK: Well, thank you for taking the time
 10 and trouble to do it, and we are grateful for your
 11 evidence. You are now free to go. Thank you very much.
 12 THE WITNESS: Thank you.
 13 (The witness withdrew)
 14 SIR MARTIN MOORE-BICK: Yes, Mr Millett.
 15 MR MILLETT: Mr Chairman, we now come to Mr Sounes again,
 16 and Ms Grange will now take up the baton where she left
 17 off with him.
 18 SIR MARTIN MOORE-BICK: Yes. We probably don't need to have
 19 another break at this stage.
 20 MR MILLETT: No, we don't.
 21 SIR MARTIN MOORE-BICK: We might have one part-way through
 22 Mr Sounes' evidence, if he would like to do that.
 23 MR MILLETT: Very good, Mr Chairman. If you would just
 24 forgive us moving the furniture around.
 25 SIR MARTIN MOORE-BICK: Yes, of course.

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1 (Pause)
 2 All right, are you ready, Ms Grange?
 3 MS GRANGE: Yes, thank you.
 4 SIR MARTIN MOORE-BICK: Could you ask Mr Sounes to come in,
 5 thank you.
 6 MR BRUCE SOUNES (continued)
 7 Questions from COUNSEL TO THE INQUIRY (continued)
 8 SIR MARTIN MOORE-BICK: Good afternoon, Mr Sounes.
 9 THE WITNESS: Good afternoon.
 10 SIR MARTIN MOORE-BICK: It's good to see you back.
 11 Can I just remind you that you are still under oath,
 12 and Ms Grange is going to take up the questioning.
 13 We will have a break part-way through the afternoon,
 14 just to ensure that the periods aren't too long, and
 15 I'll leave it to Ms Grange to find a suitable moment.
 16 All right?
 17 THE WITNESS: Okay.
 18 SIR MARTIN MOORE-BICK: Yes, Ms Grange.
 19 MS GRANGE: Yes, thank you.
 20 So, Mr Sounes, we were on the topic of Exova's work
 21 on the project when we broke off last time. You will
 22 recall that?
 23 A. Yeah.
 24 Q. What I want to do first up is to pick up and finish off
 25 that topic today.

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1 We had just been discussing an exchange between
 2 Mr Rek and Mr Ashton that took place on
 3 1 and 4 November 2013 about cavity barriers in the
 4 rainscreen system. Do you recall that?
 5 A. Yes.
 6 Q. Indeed, Mr Rek's just been being asked about that, just
 7 before your evidence just now.
 8 So three days after that exchange with Mr Rek, on
 9 7 November 2013, Exova send issue 3 of their outline
 10 fire safety strategy. So this was prepared within
 11 two weeks of issue 2 of that strategy, which had been
 12 dated 24 October 2013.
 13 So can we turn up this issue 3. That's at
 14 {EX000001107}. So we can see here "Grenfell Tower
 15 Outline Fire Safety Strategy", and then on the
 16 right-hand side at the bottom, date: 7 November 2013,
 17 and do you see there issue 03; yes?
 18 A. Yeah.
 19 Q. Now, can you recall which RIBA stage did this report
 20 relate to?
 21 A. RIBA stage E.
 22 Q. Stage E?
 23 A. Yeah.
 24 Q. We know that the Studio E stage D report had been served
 25 in August 2013, and so is it right that you were now in

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1 the process of preparing the employer's requirements --
 2 A. Yes.
 3 Q. -- for the project?
 4 Now, if we can go on to page 2 {EX000001107/2} of
 5 this document, we can see there, next to issue 3 in the
 6 box at the top -- with each one we have a reason for
 7 revision; do you see that?
 8 A. Yeah.
 9 Q. It says:
 10 "Third issue -- revised to take into account
 11 comments from the design team."
 12 Do you see that?
 13 A. Yeah.
 14 Q. It's right, isn't it, that in the days before issue 3
 15 was finalised, Studio E had had various exchanges with
 16 Exova, particularly about the fire strategy for the
 17 lower levels of the tower; is that correct?
 18 A. I seem to recall that that's primarily what we were
 19 discussing, yes.
 20 Q. Did you have any discussions during that time about the
 21 external walls to the tower at levels 4 and above?
 22 A. I can't recall any, no.
 23 Q. No, there are no documents we can find that have any
 24 such discussions, so I just want to be clear. Do you
 25 have any recollection of any discussions about the

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1 external walls with Exova before this issue 3 arrived?
 2 A. No.
 3 Q. Just to note, before we leave page 2, we can see that
 4 it's prepared by Mr Ashton and reviewed by Mr McEleney;
 5 do you see that?
 6 A. Yeah.
 7 Q. So let's go to page 4 {EX000001107/4} of this document,
 8 and if we can blow that up. So here we see -- it's
 9 familiar now -- the introduction to this report. If you
 10 just cast your eye down the bullet points about what the
 11 refurbishment comprises -- do you see those?
 12 A. Yeah.
 13 Q. Do you agree that there is still no mention of the
 14 overcladding in this summary?
 15 A. No, there's no mention.
 16 Q. Can you give us an explanation as to why that might have
 17 been?
 18 A. No.
 19 Q. Did you ever go back to Mr Ashton and query that
 20 omission in this final version?
 21 A. No, I don't think there's anything on record.
 22 Q. Do you remember noticing at the time that the cladding
 23 was omitted from the description of the project?
 24 A. No.
 25 Q. Now, in the very last part of this introduction at the

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1 bottom of that page, we see a new entry that says:
 2 "The report is based upon discussions held with the
 3 design team, [RBKC] and on fire access and fire strategy
 4 drawings produced by Studio E LLP."
 5 Do you see that?
 6 A. Yeah.
 7 Q. In this version, the drawings that the report's based on
 8 are not set out there, are they?
 9 A. No.
 10 Q. So would you agree that, for any readers of this report
 11 in the future, they wouldn't be able to understand
 12 precisely what drawings information this report was
 13 based on?
 14 A. Correct, yeah.
 15 Q. Do you recall ever checking with Mr Ashton that he had
 16 the necessary drawings and details and specifications
 17 that he needed to provide the advice which had been
 18 sought and was dealt with in the fee proposal by Exova?
 19 A. I do not recall ever asking, and I would have expected
 20 him to have asked if he felt he needed anything.
 21 Q. I see.
 22 So can we go on within the report to page 9
 23 {EX000001107/9} of it, and look at the B4 section. So
 24 it's at the top of this page, if we can blow that up.
 25 We can see exactly the same wording as appears before in

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1 issues 1 and 2:
 2 "It is considered that the proposed changes will
 3 have no adverse effect on the building in relation to
 4 external fire spread but this will be confirmed by
 5 an analysis in a future issue of this report."
 6 Do you see that?
 7 A. Yes.
 8 Q. Now, you have discussed this in your witness statement,
 9 and I want to take you to some of the things you have
 10 said in your witness statement about this.
 11 Can we go within your witness statement to
 12 {SEA00014273/12}, and look at paragraph 28.4.
 13 Now, that's quite a long paragraph. What I want to
 14 do is pick it up nine lines down, and there's a sentence
 15 that begins:
 16 "Regarding the [outline fire safety strategy] ..."
 17 On the right, if we just read it together:
 18 "Regarding the OFSS, Exova issued the final version
 19 of it that I have seen in November 2013, shortly before
 20 finalisation of the tender documents. From Studio E's
 21 perspective, the OFSS should have identified the fire
 22 related issues which could have potentially undermined
 23 the development of the plans for the Project (to ensure
 24 a high standard of fire and life safety for the
 25 occupants of the Tower, whilst highlighting any areas of

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1 the Tower's design that may represent an approvals risk,
 2 including determination of any external fire spread
 3 issues that there may be and the impact this may have on
 4 the architectural design)."
 5 Do you see that?
 6 A. Yes.
 7 Q. Just taking that in stages, is it right that issue 3,
 8 dated 7 November, was the final outline fire safety
 9 strategy that was ever produced by Exova?
 10 A. Yes, it was.
 11 Q. You say in this part of your witness statement that that
 12 strategy should have identified the fire related issues
 13 which could have potentially undermined the development
 14 of the plans for the project; yes?
 15 A. Yes.
 16 Q. Did you think that the overcladding work could have
 17 potentially undermined the development of the plans for
 18 the project?
 19 A. Not -- not in a generic sense. The cladding in and of
 20 itself could be at risk, but that I think is any issues
 21 that might be related to the cladding, if I understand
 22 your question.
 23 Q. So what I'm really getting at is whether you thought
 24 that the overcladding work had the potential to
 25 undermine the development of the design for the project?

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1 A. As I said, in a generic sense, there wasn't any
 2 suggestion that there was a risk.
 3 Q. Is that because of the very simple sentence we see in
 4 the report?
 5 A. Yes.
 6 Q. And you assumed, therefore, that, what, Exova are
 7 telling you no risk at all with the cladding?
 8 A. Certainly no risk that they felt was worthy of raising.
 9 Q. What about you yourself, Mr Sounes, did you think in
 10 your own mind that there might be potential risks
 11 associated with the cladding that you were keen to
 12 resolve?
 13 A. Erm ... there was nothing at this point that I was
 14 concerned about which I hadn't raised with Exova. As
 15 I recall, there was quite a lot of correspondence with
 16 Exova before this report which dealt with a lot of
 17 issues, but they were all internal issues, they didn't
 18 really deal with the façade. So at the time I don't
 19 think we had any knowledge of any concerns.
 20 Q. Did you think about going back to Exova at this point
 21 and asking them to address the overcladding work in
 22 detail?
 23 A. No.
 24 Q. Can we then look at paragraph 322 of your witness
 25 statement. This is at page 130 {SEA00014273/130} within

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1 the same statement. I want to look at 322, so if we
 2 read that:
 3 "On 7 November 2013, Exova emailed me version 3 of
 4 the OFSS. To the best of my knowledge, this was the
 5 last version of the OFSS that Exova prepared for the
 6 Project (I note that Neil Crawford (Studio E) emailed a
 7 copy of this version on 29 September 2014, although they
 8 may have had a copy before). As with versions 1 and 2
 9 of the OFSS, Exova addressed, among other things,
 10 compliance with Part B of Schedule 1 to the Building
 11 Regulations 2010 (Part B4) by stating ..."
 12 Then we have the quote.
 13 Then you say in the last line:
 14 "I believe they would have been aware of the
 15 proposal to clad the Tower."
 16 Do you see that?
 17 A. Yes.
 18 Q. I want to pick up on that last line, "I believe they
 19 would have been aware of the proposal to clad the
 20 Tower". What do you mean by you believe they would have
 21 been aware?
 22 A. At the time I -- it was my understanding, my knowledge,
 23 to the best of my knowledge, that it had been
 24 communicated to Exova, by email or verbally or by
 25 drawing, that the -- one of the key aspects of the

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1 project was the overcladding.
 2 Q. Was there any doubt in your mind about that at this
 3 time?
 4 A. As to their knowledge?
 5 Q. Yes, of the overcladding.
 6 A. No.
 7 Q. You were clear, were you, in your mind that Exova knew
 8 about the overcladding and had had sufficient details to
 9 be able to advise?
 10 (Pause)
 11 A. I believe they had had our stage reports, but I would
 12 have thought that was enough.
 13 Q. I think we looked at this earlier. We can certainly see
 14 them being sent a link to the stage C report. What we
 15 haven't been able to find is any document which shows
 16 they were sent the stage D report in --
 17 A. Yeah.
 18 Q. -- August 2013.
 19 (Pause)
 20 Just to be clear, you're saying that there wasn't
 21 any doubt in your mind that they knew about the proposal
 22 to overclad the tower and what those proposals were?
 23 A. In my mind, yes. I really thought that was a headline
 24 item on any discussion.
 25 Q. Would you agree with me, based on the advice we've seen

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1 you got in that one sentence, that the external fire
 2 spread issues arising from the overcladding proposed
 3 scheme and compliance with B4 of schedule 1 of the
 4 Building Regulations was never analysed in writing by
 5 Exova or any specialist fire consultant?
 6 A. Not in detail, no. No.
 7 Q. That was all you ever got, just that one sentence?
 8 A. I ... yes, and I believe they had seen some of the
 9 proposals, so I think -- the nature of the proposals
 10 I think was understood.
 11 Q. Do you agree that Studio E never received any written
 12 analysis or advice on the fire safety implications of
 13 the proposal to insulate and overclad the tower?
 14 A. Sorry? Do I ...?
 15 Q. Do you agree that Studio E never received any written
 16 analysis or advice on the fire safety implications of
 17 the proposal to insulate and overclad the tower?
 18 A. I ... that sentence that there was no adverse effect is
 19 all that there is.
 20 Q. That's the analysis, is it?
 21 A. Yeah -- well, it's not an analysis, that's the advice.
 22 Q. Yes.
 23 Now, when you handed over to Mr Crawford in the
 24 summer of 2014, did you point out to him that Exova had
 25 promised an analysis of the B4 requirement in a future

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1 issue of their report?
 2 A. No. I -- well, no, I don't recall doing that.
 3 Q. Do you know why you wouldn't have done that in that
 4 handover?
 5 (Pause)
 6 A. At the time I actually thought Exova had finished their
 7 work, and I ... I think I had assumed that the future
 8 issue was a future commission.
 9 Q. Was a future commission?
 10 A. Yeah.
 11 Q. What does that mean?
 12 A. Well, it's to follow, in other words, when someone comes
 13 back and asks us.
 14 Q. I see. So did you take this to mean, "The changes would
 15 have no adverse effect, but if you commission us to look
 16 at this again in the future, we would then advise on
 17 that"? Is that what you're saying?
 18 A. I think it's saying in generic terms that they have --
 19 they see no concerns with it, but they'll look at it
 20 when we revert with ...
 21 Q. What about the words "but this will be confirmed by
 22 an analysis in a future issue of this report"? Did you
 23 think that that was contingent on a further commission?
 24 A. Well, that's what it says, "This will be confirmed".
 25 Q. When you talk about a future commission, a commission by

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1 who? Who did you think would commission that further
 2 analysis?
 3 A. I -- well, we had that conversation before as to whether
 4 the fire consultant would be retained --
 5 Q. Yes.
 6 A. -- by the contractor or by the client.
 7 Q. Yes. I'm going to actually come on to that.
 8 A. So that was -- that's what I felt we needed, and that's
 9 what I think that was referring to.
 10 Q. Can you explain why no one at Studio E ever requested
 11 that further analysis from Exova?
 12 A. Well, at this point, this is the tender. The project is
 13 let to a design and build contractor and the design and
 14 build contractor assumes responsibility for the design
 15 and the compliance of the design.
 16 Q. I see. So you thought that the appointed design and
 17 build contractor would have responsibility for picking
 18 this up where it left off; is that what you're saying?
 19 A. For confirming compliance or any -- resolving any
 20 issues, fire related issues, yes.
 21 Q. Was there not a danger that the contractor would read
 22 the first part, "It is considered that the proposed
 23 changes will have no adverse effect on the building in
 24 relation to external fire", and think, "Well, there's
 25 nothing left to be done"?

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1 (Pause)
 2 A. It's not the same as confirming compliance.
 3 Q. I see. So are you saying they haven't confirmed
 4 compliance, that's clearly outstanding, and that's
 5 something for the design and build contractor to
 6 address?
 7 A. Well, they've confirmed that they see no adverse effect,
 8 so compliance should be straightforward. That's my
 9 reading of that sentence.
 10 Q. I see.
 11 Are you taking "adverse effect" and "compliant" to
 12 mean something different?
 13 A. No.
 14 Q. No.
 15 Did anyone at Studio E ever advise the TMO client
 16 that this analysis was outstanding and would need to be
 17 addressed in the future?
 18 A. I think there were conversations and there is a record
 19 of recommending that further fire advice was required,
 20 yeah.
 21 Q. Was it ever said specifically to the TMO, not just "You
 22 need fire advice" in a general sense, but, "Look, we can
 23 see this bit of the analysis is not complete, you, the
 24 TMO, as client, need to make sure that that's covered
 25 off"? Was that ever said to the TMO?

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1 A. I think if we had put -- well, when I put that forward,
 2 I think it was the detail that I was thinking of, and
 3 that detail would include the cladding. But the detail
 4 would have been the detail of everything.
 5 Q. I see.
 6 Now, in their fee proposal that we looked at before,
 7 Exova had promised that they would provide a detailed
 8 fire strategy at RIBA stage D and E, hadn't they?
 9 A. Yeah.
 10 Q. Do you remember that?
 11 A. Yeah.
 12 Q. So at stage C, it explained that you would get
 13 a preliminary fire strategy, and then at stage D/E, the
 14 words that were used was "a detailed fire strategy".
 15 A. Yeah.
 16 Q. Did you ever compare issue 1 of Exova's fire strategy
 17 with what you got at issue 3?
 18 A. No. When you say compare, I mean, we had been
 19 discussing it with them ... it's a year apart, but the
 20 project had evolved, the design had changed, and we had
 21 been discussing it. I don't recall comparing them, no.
 22 Q. Would you agree that they are very similar in length?
 23 If we just looked at the length of the reports, we have
 24 nine pages for issue 1 and ten pages for issue 3.
 25 A. Yes. Yeah.

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1 Q. Did you ever give consideration to whether issue 3
 2 satisfied the commitment in the fee proposal to provide
 3 a detailed fire strategy?
 4 A. No, I didn't go back to the original quote.
 5 Q. Was there a reason why?
 6 A. I think the absence of -- we weren't -- there's clearly
 7 no concern raised as to what would need further input in
 8 the report, the strategy report, the fire safety report.
 9 The reason for suggesting that a fire consultant might
 10 be necessary is there's a lot of detail to work through
 11 once you do get into the next stage, onto construction.
 12 Q. So you didn't ever think, you know, specific to B4,
 13 "Well, we haven't had a lot of detail or guidance on
 14 that. What was promised was a detailed fire strategy,
 15 and you, Exova, ought to be providing us with something
 16 a bit more detailed on the B4 requirement?"
 17 A. Sorry, I ... you're asking me if I thought the report
 18 was deficient in some way. At the time, I didn't.
 19 Q. Okay.
 20 Let's move on in the chronology and go to 2014. If
 21 we can turn to {SEA00010706} and look at the email at
 22 the bottom of page 1. So just have a read of that to
 23 yourself for a moment.
 24 (Pause)
 25 A. Okay.

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1 Q. Yes, so this is an email from Claire Williams of the TMO
 2 to you on 1 April 2014, and the subject is "Grenfell
 3 fire strategy", and we can see that she says:
 4 "We had another meeting with the fire brigade (the
 5 next quarterly one), and there was a fire engineer
 6 liaison chap there."
 7 You see that in the first line? Then she says:
 8 "I want to get our fire strategy onto their radar,
 9 particularly in terms of understanding any issues they
 10 may have over the smoke venting system to the lobbies."
 11 Do you see that?
 12 A. Yes.
 13 Q. She also asks to be sent Studio E's drawings.
 14 Can we then see your response, which is at the top
 15 of this page. So this is your response to her the next
 16 day, 2 April 2014, and you say:
 17 "Hi Claire,
 18 "Attached is Exova's fire strategy and RBKC's markup
 19 of our fire strategy plan."
 20 When you say RBKC's mark-up, do you mean RBKC
 21 building control's mark-up?
 22 A. Yes.
 23 Q. Yes, of the fire strategy plan. Then you say this:
 24 "I would not show this to the LFB. They are likely
 25 to support the severe interpretation of the regulations

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1 which Exova believe are unnecessary because this is in
 2 an existing building. It is to be superseded too."
 3 Then:
 4 "Was there something else you were thinking of?"
 5 Do you see that?
 6 A. Yeah.
 7 Q. Now, can you just be clear, what is it you are saying
 8 should not be shown to the LFB?
 9 A. My recollection is it was the mark-up that we had
 10 received that, I think, New Year's Eve, I think it was.
 11 Q. Can you explain why you didn't want the mark-up of the
 12 fire strategy plan by building control to be shown to
 13 the LFB?
 14 A. Well, the one reason it was to be -- it needed to be --
 15 these fire strategy plans needed to be updated, but as
 16 I recall, the mark-up had highlighted requirements for
 17 fireproofing the risers off the central lobby, which
 18 I hadn't had an opportunity to discuss with RBKC but
 19 which I thought could pose a problem for the new
 20 services.
 21 Q. I see. Was it that work which Exova believed was
 22 unnecessary, just looking at the next bit of your email?
 23 A. I think so. I mean, that's my recollection, the comment
 24 which I thought needed to be discussed, just that one
 25 item.

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1 Q. So had you had separate discussions with Exova over
 2 this?
 3 A. My email implies that I had. I don't recall.
 4 Q. Instead of keeping that information from the LFB, why
 5 not provide the mark-up of the fire strategy plan and,
 6 indeed, Exova's fire strategy to the LFB and ask for
 7 their comments?
 8 A. I didn't ... I mean, if it was going to be a problem,
 9 I wanted to be sure, I didn't want to ... in a sense,
 10 you don't get many opportunities to speak to the Fire
 11 Brigade, so you wouldn't want to --
 12 Q. I see, so you wanted to be clear what proposal --
 13 A. We were actually --
 14 Q. -- you were making.
 15 A. -- making, yes.
 16 Q. Would you agree that that might suggest a less than
 17 transparent attitude to liaison with the LFB at this
 18 point?
 19 A. In the event, I'm not sure they even looked at it. No,
 20 not at all. I ... I think the services strategy was
 21 still not clearly resolved, the strategy -- the
 22 fire strategy was still -- the plans were still
 23 evolving. I thought it best to be sure of what we were
 24 proposing before we did so, to the Fire Brigade.
 25 Q. I see.

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1 Was it your view at this time that it was in the
 2 client's interests to get through the building control
 3 process with the minimum possible requirements?
 4 A. No. Minimum possible? Sorry, can you clarify what you
 5 mean?
 6 Q. Well, did you think it was in your client's interest to
 7 try and get through the building control process without
 8 too many issues being raised by building control?
 9 (Pause)
 10 A. It's not my role as an architect to be devious, I'm
 11 sorry.
 12 Q. Okay.
 13 You say in this email, the last sentence of that
 14 first paragraph, "It is to be superseded too".
 15 A. Yeah.
 16 Q. Just to be clear, is that the mark-up of the
 17 fire strategy plan was to be superseded or Exova's
 18 fire strategy was to be superseded? Because you're
 19 referring to both at the beginning of that email.
 20 A. No, it would be the fire strategy plan, because the
 21 plans had changed or were changing.
 22 Q. We're agreed that in fact Exova's fire strategy was
 23 never updated, was it?
 24 A. No.
 25 Q. Can we then turn to your witness statement again. If we

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1 look at {SEA00014273/152}, and I want to look at
 2 paragraph 372, which is at the top of that page, if
 3 I can just read that out. So you say:
 4 "Around this time ..."
 5 And it's clear from the previous paragraph in your
 6 statement you mean around March 2014 now:
 7 "... I believe I asked Simon Lawrence whether Rydon
 8 would extend Exova's appointment or appoint another fire
 9 consultant. Simon said that Rydon typically did not
 10 engage fire consultants on the basis that the strategy
 11 was established by the client's team and, as contractor,
 12 it was responsible for executing it. He regarded it as
 13 Building Control's responsibility to raise any concerns
 14 and satisfy themselves with the details of the
 15 submission."
 16 Do you see that?
 17 A. Yeah.
 18 Q. So I want to ask you some questions about that
 19 conversation with Mr Lawrence.
 20 So did you take Mr Lawrence to be saying that it was
 21 not intended that Exova, or indeed any other fire
 22 consultant, would be engaged on the project after
 23 novation?
 24 A. It wasn't Rydon's typical practice to, that's -- did
 25 I hear your question correctly, sorry?

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1 Q. Did you understand from him that he simply wasn't going
 2 to be instructing either Exova or another fire safety
 3 consultant?
 4 A. Yes, and, as I explained, that was not what they
 5 normally did. They did not normally expect to engage
 6 a fire consultant.
 7 Q. Do you agree that at this point in time, the fire
 8 strategy had not been established by the client's team
 9 so far as the cladding design was concerned, had it?
 10 A. No.
 11 Q. You knew, based on three iterations of the outline fire
 12 safety strategy, that Exova had deferred consideration
 13 of the functional requirement B4 until a later stage,
 14 didn't you?
 15 A. Yeah, well, they obviously would need full details to be
 16 able to do that, yes.
 17 Q. Is it also right that, as lead consultant, you also knew
 18 that the client's team had not considered the compliance
 19 of the façade materials and products with the
 20 Building Regulations at that point, had they?
 21 A. Correct, yeah.
 22 Q. Now, in light of the indication given to you by
 23 Mr Lawrence, as you have reported here, who did you
 24 understand would be taking steps to establish the
 25 fire strategy for the cladding design?

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1 A. The specialist consultant -- specialist contractor --
 2 subcontractor.
 3 Q. So do you mean Harley?
 4 A. Yeah. I think by this stage I might have known it was
 5 Harley, yes.
 6 Q. Did you expect that Harley would be able to establish
 7 a fire strategy for the cladding design? Was that your
 8 expectation?
 9 A. It was my expectation, yes.
 10 Q. When you had this conversation with Mr Lawrence, did you
 11 raise any concerns with him about the approach he
 12 intended to take?
 13 (Pause)
 14 A. I remember discussing it with him. I don't remember at
 15 the time having concerns or communicating them to him.
 16 I mean, it's just -- he was clear where the
 17 responsibilities were going to lie, that was -- in
 18 a sense, that was the contractor's role, to decide who
 19 was taking responsibility for what.
 20 Q. You say you recall the discussion with him. Can you
 21 recall what you were saying back to him? When he was
 22 saying this, "We don't typically engage fire
 23 consultants", what was your response?
 24 A. I think I queried it. I just queried, would there be,
 25 and ... and that was all.

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1 Q. Did you ever press him on the point?
 2 A. No. I think it came up more than once, but I think --
 3 I don't remember pressing him on it.
 4 Q. At the time, did you believe that Exova or another fire
 5 consultant should be appointed by Rydon?
 6 A. No, otherwise I would have pressed him.
 7 Q. Yes.
 8 Did you tell Mr Lawrence that the analysis of the
 9 implications of insulating and overcladding the exterior
 10 façade on fire safety was still awaited from Exova?
 11 A. No.
 12 Q. Did you tell him that Exova had promised an analysis of
 13 the B4 requirements in a later issue of their report,
 14 but that this had never been provided?
 15 A. No.
 16 Q. Did you not think it was important to tell Mr Lawrence
 17 that a fire safety consultant needed to be retained to
 18 deliver that analysis?
 19 A. I'm not -- no, that was the point. I -- it was for the
 20 specialist to follow through with the analysis.
 21 Q. I see.
 22 Did you ever bring Mr Lawrence's view about not
 23 appointing a fire consultant to the attention of the
 24 TMO, the client?
 25 A. I can't recall doing so, but I might have. I can't

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1 recall. I think, you know, it would have been a bit out
 2 of line to do so at this point, I think.
 3 Q. Just to be clear, were you aware that Exova had not been
 4 appointed by Rydon post-novation? Was that something
 5 that was clear to you, that Rydon hadn't appointed them?
 6 A. Yes.
 7 Q. Before I leave this topic, I want to turn back in time
 8 and look at something you said earlier on this subject.
 9 Can we turn to {SEA00007318}. If we can just blow the
 10 top of the page up, this is an email from you to
 11 Mr Dawson of Appleyards. This is 5 February 2013, so
 12 I'm taking you back a year to see what you were saying
 13 at that stage. You say in this short email:
 14 "Alun,
 15 "Comments below in red.
 16 "Regards.
 17 "Bruce."
 18 Do you see that?
 19 A. Yeah.
 20 Q. So what you have done is he has sent you an email that
 21 we see at the bottom of that page, and you have put your
 22 comments on different topics in red.
 23 If you look at that email from Mr Dawson, the bit
 24 that we want to look at is -- you can see the second red
 25 paragraph, you say:

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1 "We believe the following will need to be included
 2 in the post-novation team ..."
 3 There we have landscape architect, fire consultant,
 4 acoustics. Do you see that?
 5 A. Yeah.
 6 Q. Then you say:
 7 "I think you are proposing to leave these out of the
 8 novation agreement, and that they would be kept client
 9 side. This is confusing because Leadbitter have asked
 10 us to get prices for all three to complete Stage E & F1,
 11 with the intention that the whole team are sub-consulted
 12 to us through to completion."
 13 Do you see that?
 14 A. Yeah.
 15 Q. So it was clearly your view, wasn't it, in early
 16 February that a fire consultant would need to be
 17 included in the post-novation team?
 18 A. This is in that period we sort of call the stand-down,
 19 where Leadbitter/Bouygues were still in the frame as the
 20 potential design and build contractor.
 21 Q. Yes.
 22 A. We hadn't done a stage E, and the intention was to
 23 novate us, I think, there and then.
 24 Q. I see.
 25 A. Within -- so it -- it was envisaging a slightly

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1 different structure.
 2 Q. Yes.
 3 A. Team structure and contractual structure. But I still
 4 felt the fire consultant needed to be involved.
 5 Q. You see, the reason I've taken you to this is this is
 6 the only time that we can see in the written documents
 7 you recommending to Artelia or to anyone else that
 8 a fire consultant should be engaged post-novation.
 9 What I would like to ask is: why, in mid-2014, did
 10 you not repeat that advice to the TMO, to Rydon, at that
 11 stage, to Artelia?
 12 A. Under a design and build, all the responsibility gets
 13 passed on to the contractor, and at this point, when we
 14 hadn't done a stage E, certainly recommending it, I felt
 15 we needed -- we would need a consultant. In 2014, it
 16 was for the contractor.
 17 Q. I see. But I think we just established that you still
 18 did think in 2014 that there ought to be fire advice?
 19 A. I remember asking, querying it. As you say, I don't
 20 think I put it to anyone in writing.
 21 Q. Can you just be clear why at that stage you didn't press
 22 it, you didn't repeat the advice in writing at that
 23 stage? You have said because there was a design and
 24 build contractor, but can you just give us a bit more
 25 information about why you didn't think it was your

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1 responsibility at that point to be emphasising that
 2 further advice was needed?
 3 A. I'm sorry, I'm ...
 4 Q. Let me put it a different way.
 5 Wasn't it appropriate to repeat that advice to Rydon
 6 and the TMO post-novation, particularly given what you
 7 knew about how detailed Exova's work had been?
 8 (Pause)
 9 A. Sorry, I don't think I can comment. I think the bit
 10 from my witness statement is ... is all I can think.
 11 I remember discussing it with Rydon, and I think it was
 12 left there until later.
 13 Q. Okay.
 14 Now, it's clear that Exova remained available to
 15 assist Studio E on an as-and-when or ad hoc basis, isn't
 16 it?
 17 A. Yeah -- well, yes.
 18 Q. Did you ever raise any concerns regarding the nature of
 19 Exova's role during the construction phase?
 20 A. No. A concern? I don't think so.
 21 Q. Yes, concern about the clarity of Exova's engagement or
 22 the nature of Exova's engagement. Did you ever say,
 23 "Look, we're getting ad hoc advice, but it's really not
 24 clear precisely on what basis Exova are advising,
 25 I think this should be clarified"?

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1 A. Did I? I don't recall doing so. Sorry, that was your
 2 question?
 3 Q. No. Yes.
 4 Would you agree that retaining Exova to provide
 5 advice on an as-and-when or ad hoc basis was
 6 inappropriate in a project like this?
 7 A. I ... I can't comment on that, as to whether it was
 8 appropriate. I thought, up until then and beyond, Exova
 9 had been quite responsive to our queries, and
 10 I understood that they were quite willing to respond to
 11 queries on their report.
 12 Q. Wasn't there a danger that by using them on an ad hoc
 13 basis, they wouldn't have a full picture of the project,
 14 they wouldn't have full details of the project? Wasn't
 15 that a risk in doing it that way?
 16 (Pause)
 17 A. I'm afraid that's ...
 18 Q. That's not something that --
 19 A. That's not the thoughts that I was thinking at the time,
 20 no.
 21 MS GRANGE: Mr Chairman, I want to move on to a different
 22 topic now.
 23 SIR MARTIN MOORE-BICK: So that might be a good point, might
 24 it?
 25 MS GRANGE: If we're going to take a break, that would be

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1 the appropriate moment, I think, yes.
 2 SIR MARTIN MOORE-BICK: Mr Sounes, we normally sit until
 3 4.30, but perhaps you would like a break at this point,
 4 would you?
 5 THE WITNESS: Yes, please.
 6 SIR MARTIN MOORE-BICK: We will stop now for ten minutes and
 7 come back at 4 o'clock, please.
 8 THE WITNESS: Thank you.
 9 SIR MARTIN MOORE-BICK: Right, 4 o'clock, then, please.
 10 (3.50 pm)
 11 (A short break)
 12 (4.00 pm)
 13 SIR MARTIN MOORE-BICK: All right, Mr Sounes? Ready to
 14 carry on?
 15 THE WITNESS: Yes.
 16 SIR MARTIN MOORE-BICK: Yes, Ms Grange.
 17 MS GRANGE: Yes, thank you, Mr Sounes.
 18 So we are moving to insulation, and I'm now going to
 19 ask you some questions about the envelope insulation.
 20 First, I'm going to ask you some questions about
 21 what those materials were and their compliance with the
 22 Building Regulations and other relevant guidance, and
 23 then I'm going to ask you some questions which go
 24 through the chronology, really, of how these products
 25 came to be used within the overcladding system at

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1 Grenfell Tower.
 2 So starting with materials and their compliance, we
 3 can see from the documents that Mr McQuatt of
 4 Max Fordham provided you with a product datasheet for
 5 Celotex FR5000 on 16 August 2012. Now, we're going to
 6 come back to that email later, but for the moment I just
 7 want to focus on the datasheet that he sent you.
 8 Now, it's right, isn't it, that Celotex FR5000 was
 9 the insulation product for the spandrel panels and
 10 columns which Studio E included in the NBS spec; is that
 11 correct?
 12 A. Yes.
 13 Q. Now can we look first at your witness statement at
 14 {SEA00014273/54}, and I want to look at paragraph 116.2.
 15 So this is the paragraph in which you refer to
 16 Max Fordham, Andrew McQuatt, sending you -- it's kind of
 17 halfway down the paragraph we can see on the page -- the
 18 information for the Celotex FR5000. At the bottom of
 19 that page, you say:
 20 "He also attached the product datasheet for Celotex
 21 FR5000."
 22 Then you say this {SEA00014273/55}:
 23 "I do not recall what I noted from the datasheet at
 24 the time, but I now note that it states Celotex FR5000
 25 'Has Class 0 fire performance throughout the entire

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1 product in accordance with BS 476'. None of
 2 Max Fordham, CEP, Exova or any other specialist I had
 3 discussed the Project with had raised this as a
 4 technical design issue."

5 Do you see that?

6 A. Yeah.

7 Q. Yes. So with that in mind, and what you have said in
 8 that paragraph, I want to look at the datasheet. Can we
 9 go to that. That's at {SEA00005841}, and if we can blow
 10 up just the top of that for the moment.

11 So this is the Celotex product datasheet for FR5000.
 12 We can see the date on the top right-hand side,
 13 "Issue 2, January 2012". Do you see that?

14 A. Yeah.

15 Q. This is the datasheet that Mr McQuatt sent to you. We
 16 can see there is an introduction to it there, it's their
 17 premium performance PIR solution.

18 Then I want to look at the bottom of that first
 19 section, at what it says in the bullet points. So we
 20 can see it says:

21 "With FR5000 you are specifying an insulation board
 22 that ..."

23 Then do you see the fourth bullet point down, it
 24 says:

25 "Has class 0 fire performance throughout the entire

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1 product in accordance with BS 476."

2 Do you see that?

3 A. Yes.

4 Q. First question: can you recall reading this datasheet at
 5 the time you worked on the Grenfell project?

6 A. The answer is no, but I strangely remember something
 7 different, and I ... and I can't be sure where I saw it.

8 Q. Ah, okay.

9 We are going to come to a few datasheets, so it may
 10 be that another one jogs your memory more. This is the
 11 FR5000 datasheet.

12 A. The one I was thinking of, or at least I thought the
 13 first one that we had received didn't have any or very
 14 little colour on the document. But I could be wrong
 15 about that. Sorry.

16 Q. I see, okay.

17 Can we just stick with this one for the moment. Can
 18 you see a little bit further down, under "Applications"
 19 at the bottom of where we've got to on the page, it
 20 says:

21 "Celotex FR5000 can be specified in a variety of
 22 applications including:

23 •" Pitched Roofs.
 24 •" Walls.
 25 •" Floors."

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1 Do you see that?

2 A. Yes.

3 Q. Now, do you agree with me, on the basis of what we can
 4 see here, that the datasheet makes no reference to the
 5 product being suitable for use within a rainscreen
 6 cladding system?

7 A. Not explicitly, no.

8 Q. Would you also agree that the datasheet makes no
 9 reference to the product being suitable for use on
 10 buildings with a storey above 18 metres?

11 A. You haven't drawn it to my attention, but no.

12 Q. You can take it from me it's not on this page, and this
 13 is just a two-page product datasheet. Perhaps the
 14 operator can just show us the second page
 15 {SEA00005841/2}. There is a more detailed technical
 16 data on that second page.

17 On "Physical Properties", you can see at the bottom
 18 of that section:

19 "Fire propagation. BS 476: Part 6. Pass.
 20 "Surface spread of flame. BS 474: Part 7.
 21 Class 1."

22 Do you see that there?

23 A. Yeah.

24 Q. But there is nothing about 18 metres in this datasheet.
 25 Now, as we can see from this page, and if we can go

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1 back to the first page {SEA00005841/1}, the datasheet
 2 confirmed that the product was class 0. We saw that in
 3 the fourth bullet point, didn't we?

4 A. Yes.

5 Q. Do you agree that it doesn't say there that the product
 6 is of limited combustibility?

7 A. No.

8 Q. Now, Celotex FR5000 was a PIR, polyisocyanurate,
 9 insulation product, wasn't it?

10 A. Yes.

11 Q. Were you aware, during your time on the Grenfell
 12 project, that PIR was a combustible insulation product?

13 A. Erm ... I understood it charred when subjected to flame.
 14 In other words, it -- that was my understanding of the
 15 product.

16 Q. Where did you get that understanding from? What was
 17 that based on?

18 A. Erm ... my -- the practice I worked in before I started
 19 at Studio E, so this is going back to -- it would have
 20 either been 1998 or 1999, I remember a Celotex rep
 21 coming in and discussing the benefits of
 22 polyisocyanurate as against polyurethane.

23 Q. And specifically addressing fire performance?

24 A. Specifically addressing its fire performance, yeah.

25 Q. And that's where you were told it chars; is that right?

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1 A. Well, that's my recollection. That's how old my
 2 recollection is of what I understood the properties of
 3 PIR were.
 4 Q. Did you know when you were working on the project that
 5 PIR products don't meet the criteria for materials of
 6 limited combustibility as defined in Approved
 7 Document B?
 8 A. Sorry, do I know now or --
 9 Q. Did you know then?
 10 A. I didn't. As we discussed, I wasn't aware of the
 11 requirement at the time. So ...
 12 Q. During your time on the Grenfell project, can you
 13 explain why you thought Celotex FR5000 was suitable to
 14 be used within the overcladding system?
 15 A. Why did I think it was?
 16 Q. Yes.
 17 A. Erm ... it had been put forward by Max Fordham, who
 18 I knew had -- who I understood had undertaken this sort
 19 of project several times, or many times, and I guess
 20 I made an assumption that they had used this before in
 21 similar circumstances. So it was based rather on
 22 inferring its acceptability from previous experience by
 23 Max Fordham.
 24 Q. Yes.
 25 A. That's a bit of hindsight on my part, but ... does

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1 that --
 2 Q. Yeah.
 3 A. Your question was why did I --
 4 Q. Yes, I'm just trying not to interrupt you, that's all.
 5 A. Just repeat your question.
 6 Q. Well, I have asked you why did you think Celotex FR5000
 7 was suitable to be used within the overcladding system?
 8 A. I had no reason to believe it wasn't, I think is
 9 probably more accurate, at the time.
 10 Q. During your time on the project, did you ever give any
 11 consideration to whether the product was compliant with
 12 the Building Regulations and associated guidance?
 13 A. The only one occasion was that ... the meeting with
 14 Harley, many months later.
 15 Q. Is that the Hays Galleria meeting?
 16 A. Hays Galleria meeting, yeah. I think that's the only
 17 recollection or evidence that I've ... I have.
 18 Q. Okay, we will come back to that meeting.
 19 Now, you have referred to class 0 in your witness
 20 statement with reference to the insulation. We have
 21 just looked at that. You said, "I've got no memory of
 22 reading this datasheet but I now note that it has
 23 class 0 fire performance". Do you remember saying that?
 24 Yes.
 25 Insofar as you understood it at the time, what was

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1 the relevance of the class 0 fire performance in the
 2 Celotex datasheet to the selection of that product at
 3 Grenfell Tower?
 4 A. I'm struggling a bit to understand exactly what you're
 5 asking me. What was the relevance?
 6 Q. Yes, what was the relevance of the fact it had class 0
 7 fire performance to the selection of that product for
 8 use at Grenfell?
 9 A. Class 0's fire performance, and class 0 -- you wouldn't
 10 want to use a hazardous material.
 11 Q. Does it follow from that that you thought if it was
 12 class 0, is wasn't hazardous?
 13 A. Yes. Yes.
 14 Q. Do you have a memory, a recollection, of noting at the
 15 time that it had class 0 fire performance?
 16 A. I can't specifically remember that detail from so long
 17 ago, no.
 18 Q. You don't remember checking any of the product
 19 datasheets and looking for the fire performance
 20 information?
 21 A. I mentioned that I had been aware and had used this
 22 product over many years. I suspect I knew that by --
 23 Q. I see. So you think because you had used it on other
 24 projects, you would have been aware of its class 0 fire
 25 performance?

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1 A. Or that it had a performance that made it acceptable for
 2 use in the external construction.
 3 Q. Just to be clear, none of those projects were high-rise
 4 residential, were they?
 5 A. No, they weren't.
 6 Q. Did you understand that class 0 relates principally to
 7 linings, lining materials?
 8 A. Erm ... it related to something on a surface. Yes, so
 9 it could apply to a paint, but it could also apply to
 10 a panel, is my ...
 11 Q. Just going back to my earlier question, how would
 12 class 0 be relevant to an insulation product in
 13 a rainscreen system, given that's going to sit behind
 14 the rainscreen in the cavity?
 15 A. Well, whether it's a lining or an insulation sitting
 16 within a cavity, you would not want it to support the
 17 spread of a fire. So I see those as relevant in both
 18 contexts.
 19 Q. I see.
 20 Did you know that a class 0 rated product doesn't
 21 infer any resistance to combustibility?
 22 A. I thought it did. I thought that essentially
 23 a resistance to combustibility is what class 0 is.
 24 Q. Yes.
 25 Let's now look at {CEL00000013}. Now, this is

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1 an updated product datasheet for the product
 2 Celotex RS5000, dated August 2014.
 3 Mr Operator, if we can just go one page on within
 4 this {CEL00000013/2}.
 5 I was just looking for the date, but you will have
 6 to take it from me at the moment that it's August 2014.
 7 Do you recall reading this RS5000 guide at the time
 8 that you worked on the Grenfell project?
 9 A. No. I'm ... I'm not sure we have it, or we received it.
 10 We may have done, but I don't recall seeing it.
 11 Q. You don't recall seeing it.
 12 If we look at page 5 {CEL00000013/5} of the
 13 document, we can see in the top left-hand side under
 14 "Fire Performance, Rainscreen Insulation", it says
 15 there:
 16 "Celotex RS5000 is Class 0 fire rated as described
 17 by the national Building Regulations having achieved
 18 both ..."
 19 Then it explains that it has a pass to BS 476,
 20 part 6, and then classification as class 1 in accordance
 21 with BS 476, part 7. Do you see that?
 22 A. Yes.
 23 Q. Did you understand at the time that in order to achieve
 24 class 0 there were two separate tests where the data
 25 would be relevant to whether you got class 0?

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1 A. No, at the time I wasn't aware of the ... the route to
 2 achieving --
 3 Q. Class 0?
 4 A. Yeah, no.
 5 Q. Okay.
 6 Then we can see that the product sheet goes on to
 7 say, under the heading "Building above 18 metres" -- do
 8 you see, just below that?
 9 A. Yes.
 10 Q. It says:
 11 "Celotex RS5000 has been successfully tested to
 12 BS 8414-2:2005 ..."
 13 Do you see that?
 14 A. Yes.
 15 Q. Then slightly later in that:
 16 "... [and] meets the criteria set out in BR 135 and
 17 is therefore acceptable for use in buildings above
 18 18 metres in height."
 19 Do you see that?
 20 A. Yes.
 21 Q. Do you recall reading that in Celotex product literature
 22 during your time on the Grenfell project?
 23 A. No. This was 2014, and, as I said, I don't think ...
 24 I don't think we have this -- we received this document.
 25 Q. Ever on the project? Do you recall ever ...?

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1 A. I think we would have identified it by now. I don't
 2 think so.
 3 Q. No. If you had read that, and you had seen reference to
 4 BS 8414 and BR 135, would you have understood what that
 5 meant?
 6 A. No.
 7 Q. Just below that, it gives details of the system tested
 8 to achieve the BS 8414. It says, "The system tested ...
 9 was as follows ..."
 10 Again, can you recall reading anything like that at
 11 the time you worked on the Grenfell project?
 12 A. No. I mean, I should add that by 2014 my involvement
 13 had scaled back and I wouldn't have been studying
 14 datasheets.
 15 Q. I'm just going to show you one more datasheet for the
 16 Celotex RS5000. This is {CEL00000012}. Again, this is
 17 dated August 2014, as per the earlier document for
 18 RS5000. This is a "Rainscreen Cladding Compliance
 19 Guide, When specifying Celotex RS5000 in buildings above
 20 18 metres"; do you see that?
 21 A. Yeah.
 22 Q. Again, do you have any recollection of seeing that
 23 document at the time you worked on the Grenfell project?
 24 A. No.
 25 Q. Okay, in which case I'm going to skip on in my questions

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1 and talk about a different product called K15.
 2 So as at July 2012, Studio E was in possession of
 3 a product datasheet for the product Kingspan Kooltherm
 4 K15. Can we just call that up. That's at
 5 {SEA00001009}. So there we have the Kingspan brochure
 6 that we know was in Studio E's possession at the time
 7 because we've seen that in your documents.
 8 Did you know at the time of the Grenfell project
 9 what type of insulation K15 was?
 10 A. I can't recall, but I think the -- my witness statement
 11 implies that I did, I think, because, as I recall,
 12 Andrew McQuatt mentions it as a phenolic.
 13 Q. That's correct, he does. Yes.
 14 A. So I remember that, but I can't be sure of the timings.
 15 Q. I was going to check whether you understood that it was
 16 a phenolic insulation product.
 17 A. Yeah.
 18 Q. Were you aware that K15 was a combustible insulation
 19 product at the time you worked on Grenfell?
 20 A. I was less sure of its properties, having not had the
 21 equivalent experience with a technical representative
 22 discussing its fire properties. However, I had seen it
 23 recommended, and that does appear in certainly the
 24 correspondence that we --
 25 Q. Yes.

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1 A. -- received through 2013, I think.
 2 Q. Yes. We will pick that up.
 3 Do you recall ever specifically researching its fire
 4 performance, K15?
 5 A. No.
 6 Q. Were you aware during your time on the Grenfell project
 7 that some K15 had been used as insulation within the
 8 building envelope?
 9 A. No.
 10 Q. You were never made aware of that?
 11 A. No.
 12 Q. Just one more question under this topic before we come
 13 to look at the chronology and precisely how the RS5000
 14 came to be suggested.
 15 Thinking back to 2012 and 2013, when you were
 16 involved in the selection of the products in the
 17 employer's requirements, were you aware of any industry
 18 guidance which warned about the combustibility of
 19 insulation products and the need to ensure that they
 20 were of at least limited combustibility?
 21 A. No.
 22 Q. Okay.
 23 So we're now going to turn to a more detailed
 24 consideration of the contemporaneous documents to see
 25 how it came about that FR5000 came to be in the NBS

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1 specification .
 2 Just some general questions to start with.
 3 Is it fair to say that the main objective of the
 4 overcladding was to improve the thermal performance of
 5 the building?
 6 A. Yes, I believe it was, yes.
 7 Q. Was another objective to improve the appearance of the
 8 building?
 9 A. Sorry, just take one step back. I thought the need to
 10 upgrade the heating, replace the windows and the
 11 cladding were, in a sense, an integral scope.
 12 I wouldn't try and put one above the other.
 13 Q. Yes.
 14 A. Yeah. Sorry, and your next question was?
 15 Q. Would you agree that another objective was to improve
 16 the appearance of the building?
 17 A. Yes.
 18 Q. I want to focus for a moment on the consideration given
 19 to the thermal performance of the insulation, and we are
 20 going to see shortly that some of the correspondence on
 21 the project refers to something called a U-value; is
 22 that correct?
 23 A. Yes.
 24 Q. Now, just to educate everyone, do you agree with me that
 25 a U-value is a measure of heat loss through a building

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1 element, such as through a wall?
 2 A. Heat transfer, yeah.
 3 Q. Heat transfer, fair enough.
 4 Do you agree that it's measured in watts per metre
 5 square kelvin?
 6 A. Yes.
 7 Q. So you see the W-m2K; do you see that?
 8 A. Watts per square metre kelvin, yes.
 9 Q. Do you agree that the lower the U-value the better; ie
 10 the lower the value, the better the material's
 11 performance in insulating against heat loss in winter
 12 and heat gain in summer?
 13 A. Correct, yeah.
 14 Q. Now, can we turn to {SEA00004295}. These are the
 15 minutes of the design team meeting that was held on
 16 Thursday, 24 May 2012, and we can see that you are
 17 present at that meeting. You are the last name on that
 18 present list .
 19 I want to go to page 2 {SEA00004295/2} under the
 20 heading "Services". So if we can zoom in and look at
 21 the second paragraph under "Services", we see this :
 22 "Design team need environmental design criteria :
 23 U-values, ventilation openings etc to progress cladding
 24 design."
 25 Do you see that?

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1 A. Yes.
 2 Q. "Options discussed: overcladding, internal lining, fixed
 3 windows with acoustic louvers[sic]."
 4 Then we see "MF" is noted in the action column on
 5 the right; do you see that?
 6 A. Yes.
 7 Q. That would refer to Max Fordham; is that correct?
 8 A. Yes.
 9 Q. Then I just want to look at what you say about this in
 10 your witness statement. That's at {SEA00014273/39}.
 11 I want to look at paragraph 81. There you say, with
 12 reference to those minutes:
 13 "The minutes state that the design team needed
 14 environmental criteria such as U-values to progress the
 15 cladding design. This was an action for Max Fordham, as
 16 I believe their design of the heating system was based
 17 in part on the performance of the external envelope of
 18 the building."
 19 Do you see that?
 20 A. Yes.
 21 Q. So do you mean by that that it was your understanding
 22 that Max Fordham would provide environmental design
 23 criteria which would include U-values?
 24 A. Yes. Yes, it would.
 25 Q. And are you saying that because Max Fordham was

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| | | | | |
|----|---|----|---|------|
| 1 | designing the heating system, they were also required to | 1 | INDEX | |
| 2 | determine a suitable measure of thermal efficiency for | 2 | | PAGE |
| 3 | the entire building? | 3 | MR TOMAS REK (affirmed) | 2 |
| 4 | A. They would be the ones to initiate the process, yes, of | 4 | | |
| 5 | determining the appropriate design standards -- design | 5 | Questions from COUNSEL TO THE INQUIRY | 2 |
| 6 | criteria . | 6 | | |
| 7 | MS GRANGE: Yes. | 7 | MR BRUCE SOUNES (continued) | 146 |
| 8 | Mr Chairman, if I turn up the next email, that's | 8 | | |
| 9 | probably going to take me about five minutes to do, so | 9 | Questions from COUNSEL TO THE INQUIRY | 146 |
| 10 | I'm happy to stop there if that's convenient, or I can | 10 | (continued) | |
| 11 | do that next. It doesn't really make sense to break | 11 | | |
| 12 | halfway through it . | 12 | | |
| 13 | SIR MARTIN MOORE-BICK: Experience suggests that things take | 13 | | |
| 14 | longer than one thinks they should, so would it be | 14 | | |
| 15 | sensible to stop there? | 15 | | |
| 16 | MS GRANGE: I think it would, yes. | 16 | | |
| 17 | SIR MARTIN MOORE-BICK: All right. | 17 | | |
| 18 | Well, Mr Sounes, we will stop there for today. I am | 18 | | |
| 19 | afraid I will have to ask you to come back tomorrow for | 19 | | |
| 20 | more questions. | 20 | | |
| 21 | I just remind you not to talk to other people about | 21 | | |
| 22 | your evidence or anything related to what we're | 22 | | |
| 23 | discussing overnight. All right? | 23 | | |
| 24 | THE WITNESS: Okay. | 24 | | |
| 25 | SIR MARTIN MOORE-BICK: Well, thank you very much. You go | 25 | | |

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| | | |
|----|---|-----|
| 1 | with the usher now and she will look after you. | 196 |
| 2 | Ms Grange, before we rise, are you expecting to be | |
| 3 | able to finish Mr Sounes tomorrow? | |
| 4 | MS GRANGE: I would hope so, but it will be tight, because | |
| 5 | there's quite a few topics still to cover with him, so | |
| 6 | I'm not going to make that promise, but I will use best | |
| 7 | endeavours. | |
| 8 | SIR MARTIN MOORE-BICK: I'm sure he would be -- | |
| 9 | MS GRANGE: I do appreciate that. I fully appreciate that. | |
| 10 | We will absolutely do our best to try and finish . | |
| 11 | SIR MARTIN MOORE-BICK: I understand there is a lot to ask | |
| 12 | him. | |
| 13 | MS GRANGE: Yes. Thank you. | |
| 14 | SIR MARTIN MOORE-BICK: Right. Well, we will get back to | |
| 15 | him at 10 o'clock tomorrow, please. | |
| 16 | 10 o'clock tomorrow. | |
| 17 | (4.30 pm) | |
| 18 | (The hearing adjourned until 10 am | |
| 19 | on Thursday, 12 March 2020) | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |

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