

OPUS 2

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Grenfell Tower Inquiry

Day 75

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1 Monday, 23 November 2020
 2 (10.00 am)
 3 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to
 4 today's hearing. Today we're going to hear the first of
 5 a number of witnesses who are or were employed by
 6 Kingspan.
 7 Yes, Ms Grange.
 8 MS GRANGE: Yes, Mr Chairman. Could we have
 9 Mr Ivor Meredith, please.
 10 SIR MARTIN MOORE-BICK: Thank you.
 11 MR IVOR JOHN MEREDITH (affirmed)
 12 SIR MARTIN MOORE-BICK: Thank you very much, Mr Meredith.
 13 Sit down, make yourself comfortable.
 14 (Pause)
 15 Good. Right, yes, Ms Grange.
 16 Questions from COUNSEL TO THE INQUIRY
 17 MS GRANGE: Yes, thank you.
 18 Mr Meredith, can you give the Inquiry your full
 19 name, please?
 20 A. Ivor John Meredith.
 21 Q. I want to start by thanking you for attending this
 22 public inquiry today to give evidence, it is very much
 23 appreciated.
 24 If you have any difficulty understanding any of the
 25 questions I'm going to ask you, please ask me to repeat

1

1 the question or put the point in a different way.
 2 If you feel that you need a break at any time,
 3 please just let us know. We will take scheduled breaks,
 4 one in the morning, one in the afternoon, but if you
 5 need any further breaks, please just let us know.
 6 The other thing I would ask you to do is just try
 7 and keep your voice up, because there is a lady just
 8 sitting to your right there who is transcribing a clear
 9 note of everything that is said, so if you can speak
 10 clearly into the microphones, that would be great.
 11 Now, you have provided us with a witness statement.
 12 Can we go to that. It's {KIN00022312}. It's dated
 13 12 May 2020. If we go to page 75, there we can see that
 14 date. Is that your signature?
 15 A. Yes.
 16 Q. Have you read that witness statement recently?
 17 A. Yes.
 18 Q. Can you confirm that the contents are true?
 19 A. Yes.
 20 Q. Have you discussed your statement or your evidence with
 21 anybody before coming here today?
 22 A. Only with my legal team.
 23 Q. Okay. Thank you.
 24 Now, just to start, I'm going to ask you some
 25 questions about your background and experience.

2

1 Now, when were you first employed by Kingspan, can
 2 you remember?
 3 A. I think it was January 1999.
 4 Q. Yes.
 5 A. I studied building at university. I was working on the
 6 production line when I saw an advert for a technical
 7 adviser position at Kingspan. I was successful with
 8 that application.
 9 Q. Yes, great. So you were working on the production line
 10 at Kingspan; is that right?
 11 A. Yes.
 12 Q. When you saw an advertisement for --
 13 A. Yes.
 14 Q. -- its technical department?
 15 A. Yes.
 16 Q. So how old were you around that time?
 17 A. 22, I think.
 18 Q. Yes.
 19 You said you had a qualification in building; is
 20 that right?
 21 A. Yeah.
 22 Q. What qualification was that?
 23 A. It's a diploma, it's a Higher National Diploma.
 24 Q. Great.
 25 Now, you tell us in your witness statement, if we

3

1 can look at paragraph 1A on page 1 {KIN00022312}, that
 2 you worked at Kingspan for a long time; you worked there
 3 from February 1999 up until August 2015. That's almost
 4 16 years; yes?
 5 A. Yes, that's correct.
 6 Q. During that time, you tell us in that paragraph that you
 7 held the following roles, we can see that in the bold
 8 text there. You say technical adviser, February 1999 to
 9 October 2005.
 10 A. Yeah.
 11 Q. Then technical project leader, November 2005 to
 12 January 2015; yes?
 13 A. Mm-hm.
 14 Q. Then just towards the bottom of that page, technical
 15 project manager between February 2015 and August 2015.
 16 A. Yes.
 17 Q. That's right, isn't it?
 18 A. Yes, yeah.
 19 Q. Now, Philip Heath, who was the technical manager at
 20 Kingspan between 2001 and 2010, he says in his witness
 21 statement that he promoted you from a technical adviser
 22 to being the technical projects manager in 2005, within
 23 the technical team, rather than in 2015. So you say you
 24 made it to technical project manager in 2015, and he
 25 says in his witness statement that was 2005. Can we

4

1 just check, are you sure that it was technical project
 2 manager in 2015?
 3 A. My job role, although essentially remained the same,
 4 I think my title did change somewhere between 2005 and
 5 2015, sorry.
 6 Q. Yes. That's okay.
 7 A. But essentially I was doing the same job role. It
 8 was -- that was just when I got my business cards
 9 printed, I think.
 10 Q. I see, yes.
 11 When you were promoted in 2005, who did you report
 12 to?
 13 A. Philip Heath.
 14 Q. And he was the technical manager; yes?
 15 A. Yes.
 16 Q. How regularly would you report to Mr Heath?
 17 A. I'd say at least three or four times a week.
 18 Q. And was that mainly by email or was that also in
 19 face-to-face meetings?
 20 A. We shared an office for a considerable duration.
 21 I think it was about maybe three years.
 22 Q. Right. Yes. Can you remember roughly when you were
 23 sharing that office with Mr Heath?
 24 A. Not directly, no.
 25 Q. No, okay.

5

1 What about Mr Malcolm Rochefort, who was the UK
 2 technical director, how often would you report to him?
 3 A. I think I only really started talking to him in my
 4 latter two-thirds of my employment at Kingspan, I think.
 5 Q. Yes.
 6 A. Yeah.
 7 Q. Again, when you say talking to him, would that be with
 8 face-to-face meetings or would it be mainly email
 9 exchanges with Mr Rochefort?
 10 A. There would be a monthly technical meeting where all the
 11 issues of the business were discussed from a technical
 12 perspective.
 13 Q. Yes.
 14 A. And if my line manager, Philip Heath, wasn't available,
 15 I would sometimes go and speak to Malcolm if the enquiry
 16 was urgent.
 17 Q. And those monthly technical meetings, would you
 18 routinely go along to those with Mr Heath and
 19 Mr Rochefort?
 20 A. Yes.
 21 Q. Yes.
 22 A. Towards the latter part of my time at Kingspan, yes.
 23 Q. When you say towards the latter part, what kind of
 24 period of time do you think you're talking about, when
 25 you would all be there at monthly technical meetings

6

1 together?
 2 A. I'd say maybe after 2008 --
 3 Q. Yes.
 4 A. -- until the end.
 5 Q. Now, you have told us in your witness statement that --
 6 and this is the same bit there that we were looking
 7 at -- from 2005, you supported -- it's under the
 8 technical project leader. You have got, "Technical
 9 Project Leader Nov 2005 - Jan 2015", and you say that
 10 you supported Kingspan business development and UK
 11 certification requirements, and this includes sourcing
 12 all the fire testing for Kingspan; is that right?
 13 A. This was all the fire testing for Kingspan Insulation
 14 Limited UK, yes.
 15 Q. You have also stated --
 16 A. Sorry, can I correct you there?
 17 Q. Yes.
 18 A. It was -- I did the majority of the large-scale testing.
 19 There was a number of small-scale tests, the class 0
 20 tests, which I was not directly involved in.
 21 Q. Yes, that's helpful. But you were managing all of the
 22 large-scale fire tests; that's right, isn't it?
 23 A. Yes, that's correct.
 24 Q. Yes.
 25 You have also stated that, when you were technical

7

1 project manager -- and I appreciate it may not be
 2 completely clear exactly when that role started -- you
 3 say "managing the Project Team and the
 4 highrisetechnical (sic) helpdesk". We see that there;
 5 yes?
 6 A. Yes.
 7 Q. Can you just help us, what was the high-rise technical
 8 helpdesk?
 9 A. In 2012 we started experiencing a lot of enquiries with
 10 regards to the performance of K15 at high-rise, so
 11 rather than let the frontline technical team deal with
 12 it, I created an email address which was distributed to
 13 myself and my colleagues where we were able to get
 14 a handle on the questions being asked and deliver the
 15 correct answers.
 16 Q. When did you first become involved in the fire testing
 17 of the K15 product, can you help us on that?
 18 A. I think it was the first test, which was in 2005, if
 19 I recall correctly.
 20 Q. Did you receive any training before you started to carry
 21 out that role?
 22 A. It was on-the-job training. This was a new test method
 23 at the time, so I witnessed a test of the previous
 24 variant, Fire Note 9, so it was just a case of applying
 25 that to K15.

8

1 Q. When you say you witnessed a test of the previous
 2 variant, Fire Note 9 -- so we know Fire Note 9 was the
 3 precursor to BR 135, wasn't it?
 4 A. Yes, yes.
 5 Q. When you say you witnessed that test to Fire Note 9,
 6 what was that a test of, can you remember?
 7 A. That was an external wall system, so it was a rendered
 8 insulation. I believe it was with a company called
 9 PermaRock.
 10 Q. Right, yes.
 11 A. It was the K5 product, not K15.
 12 Q. Right, I see, yes.
 13 When you started to become involved in this
 14 large-scale testing for Kingspan, what knowledge did you
 15 have of the Building Regulations and the practical
 16 guidance in Approved Document B on fire safety?
 17 A. I had an understanding of the limitations with regards
 18 to combustible insulations --
 19 Q. Yes.
 20 A. -- and the requirement for an alternative route to
 21 compliance.
 22 Q. So you knew, did you, that Approved Document B, the
 23 primary route was to say all insulation materials on
 24 tall buildings needed to be of limited combustibility?
 25 You knew that, did you?

9

1 A. Yes, yes.
 2 Q. And you knew that there was an alternative route to
 3 compliance through full-scale fire testing?
 4 A. Yes.
 5 Q. If we look on page 2 of your witness statement now
 6 {KIN00022312/2}, at paragraph 3(a), we can see there
 7 that you're asked about your knowledge of K15 in the
 8 questions, including, at (a), when K15 was first
 9 developed. You say this:
 10 "I believe around 2004 I was not involved in the
 11 PPDS (Product Process Production Development System) at
 12 that time."
 13 So is that right, that you believe that K15 was
 14 first developed around 2004? Is that your recollection?
 15 A. In 2003/2004 I was on the technical helpdesk, so I was
 16 on the front line dealing with the architects and
 17 enquiries. We'd always be asked to provide
 18 an alternative product, sometimes through the
 19 distributors.
 20 Celotex were putting a PIR product forward for use
 21 within glazing systems, and, when asked for
 22 an alternative, and then when we looked at the
 23 regulations, we started to consider a phenolic foam was
 24 an appropriate solution. So we started putting that
 25 forward, but then we came across the 18-metre rule, and

10

1 that was when we started to source a bespoke product for
 2 that situation, but it needed to have testing,
 3 basically, to justify its use.
 4 Q. Yes, I understand. Thank you, that's very helpful.
 5 Now, the first marketing material that we can find
 6 in what's been disclosed to us appears to have been
 7 issued in 2001. If we could just have a look at that.
 8 This is {KIN00020720}. So if you can see, in that top
 9 right-hand corner there is a small date there. It says,
 10 "First issue March 2001". Do you see that?
 11 A. Yes, I do.
 12 Q. And it's headed "Kooltherm K15 Rainscreen Board". Do
 13 you see that there?
 14 A. Yes.
 15 Q. Do you remember being aware of this first issue of the
 16 marketing material in 2001?
 17 A. That date doesn't seem right in my recollection.
 18 Q. Yes, okay.
 19 A. I should have seen it if it was there, yeah.
 20 Q. If we look on this page at the second bullet point, it
 21 says there:
 22 "Specifically designed for use within rainscreen
 23 cladding systems".
 24 Do you see that there?
 25 A. Yes.

11

1 Q. I don't think we need to go back to it now, but you tell
 2 us in your witness statement -- this is at
 3 paragraph 3(e) at page 2 {KIN00022312/2} -- when asked
 4 about the purpose or intended use of K15, you call it
 5 a cladding system insulant in your statement. Would you
 6 agree that it was specifically designed, though, for use
 7 within rainscreen cladding systems?
 8 A. Yes. That version of that product, yes.
 9 Q. You also say in your statement -- this is paragraph 4,
 10 page 2 -- that cladding is a high-rise application.
 11 Perhaps let's just look at that, at page 2, paragraph 4
 12 of your statement, if we can look down the page. You're
 13 asked the question there:
 14 "At what stage in the development of the product did
 15 Kingspan consider that it was suitable for use as
 16 insulation in external cladding systems on high-rise
 17 buildings?"
 18 And you say this:
 19 "Cladding is a high rise application. The
 20 insulation is fit for purpose if used with the correct
 21 components."
 22 Do you see that there?
 23 A. Yeah.
 24 Q. When you say those words, "Cladding is a high rise
 25 application", can you help us a little bit more what you

12

1 meant by that?

2 A. What I meant was rainscreen cladding is predominantly

3 used on high-rise buildings, as opposed to alternative

4 methods like brick facing and that sort of thing.

5 Q. Right, okay. That was your understanding, was it?

6 A. Yeah.

7 Q. Can you help us as to whether any fire testing had been

8 completed on the K15 product before 2001? I know you

9 weren't quite sure about that 2001 date, but were you

10 aware of any fire testing having been done on the K15

11 product before that time?

12 A. No large-scale fire testing.

13 Q. No.

14 Can we go, then, to an email chain I want to look at

15 now. This is {KIN00005048}. This is from

16 November 2003. We can see at the top there it's a chain

17 that involves Malcolm Rochefort, Philip Heath, and

18 you're cc'd on that top email.

19 I just want to start with the bottom email in the

20 chain, at the bottom of that first page, sent by

21 Mr Heath at 16.47. So it's Philip Heath to Gwyn Davies,

22 Malcolm Rochefort, and then you and Steve Huxham are

23 copied in there. Do you see that?

24 A. Yeah.

25 Q. On 11 November 2003. He says:

13

1 "Could we undertake a small trial with K15 with the

2 Lemtec 25 micron facing to both surfaces ASAP. This is

3 to assist in the large scale facade test we are planning

4 for early next year."

5 Then he says:

6 "The plan is to undertake two tests ..."

7 And then the cost of the test is around £14,000. Do

8 you see that?

9 A. Yes.

10 Q. Where he's referred there to the "Lemtec" 25-micron

11 facing, do you think he means the "Lamtec", spelt with

12 an A?

13 A. He does mean the Lamtec.

14 Q. Is that the foil facer of the K15 product?

15 (Pause)

16 A. I'm not sure at this point in time, sorry.

17 Q. Okay, yes, fine. But K15 did have foil facings, didn't

18 it, on either side of it?

19 A. Yes.

20 Q. When we see -- because we will see it in a number of

21 places -- reference to something like 25 microns or

22 50 microns referring to the foil facer, what's that

23 telling us? Is that thickness or is it weight? What is

24 that?

25 A. I think it's the weight per -- it's an American

14

1 description. I think it's the weight per square foot or

2 something like that --

3 Q. Yes.

4 A. -- of the foil layer in the core of the laminate facing.

5 Q. I see.

6 If we go up the page, the email immediately above is

7 sent by Gwyn Davies, and he says there, the same day:

8 "No problem.

9 "Please confirm thickness and panel dimensions.

10 Would 100 m2 be enough? This will be also pentane

11 blown."

12 Do you see that there?

13 A. Yes.

14 Q. Just help us on what that means, "pentane blown".

15 A. This is a -- it's a blowing agent used to create the

16 foam.

17 Q. Yes. And that blowing agent, is it a liquid blowing

18 agent used?

19 A. I'm not sure. It's ...

20 Q. And it's used when the foam is manufactured; is that

21 right?

22 A. Yes. This was about the time that Kingspan were buying

23 an alternative technology.

24 Q. Yes, I'm going to come to that with you in a moment,

25 we'll come to look at that.

15

1 But at this point, it does look like what they're

2 proposing at this stage will be pentane blown, doesn't

3 it?

4 A. Yes.

5 Q. Was your understanding that the K15 product that was

6 being sold in 2003 was pentane blown?

7 A. I can't recollect.

8 Q. Okay, yes.

9 Let's go now into 2004, and we're going to look at

10 an activity report that you produced in January 2004.

11 If we can go to {KIN00005054}.

12 If we look at the top of that page, we can see this

13 says it's an activity report by you on 26 January 2004.

14 Do you see that there?

15 A. Yes.

16 Q. Then if we go down to the third paragraph, if we can

17 zoom in on that third paragraph headed "Phenolic

18 Development - K15", there we can see it says:

19 "Looking at the potential for a Class 'B' phenolic

20 product that will achieve acceptability for above 18m in

21 façade construction by Building Regulations. The

22 product has been made pentane blown with a heavier grade

23 foil facing (25 micron). I will be testing within the

24 SBI on 29/01/04 and if successful results are obtained

25 we will be moving towards a large scale testing scenario

16

1 (BS 8414) performed in conjunction with steel frame
 2 system market leaders Metsec.”
 3 Do you see that there?
 4 A. Yes.
 5 Q. So we can see that this appears to be talking about the
 6 development of K15, doesn't it?
 7 A. Yes.
 8 Q. And its testing?
 9 A. Yes.
 10 Q. Now, there it says, "The product has been made" -- in
 11 the second sentence there, second line down -- "pentane
 12 blown with a heavier grade foil facing (25 micron)". So
 13 is that the K15 as you understood it to be when this
 14 report was written in 2004, January 2004?
 15 A. Okay, I was lobbying within the business for an improved
 16 fire performance product for this application, so I was
 17 seeking to have the 25-micron facer, which would offer
 18 more fire resilience or resistance, I was using the
 19 single burning item test as a -- to benchmark the
 20 performance, because I wanted an improved product for
 21 use in this application --
 22 Q. Yes.
 23 A. -- above the standard.
 24 Q. So that's an improved product for use above 18 metres;
 25 yes?

17

1 A. Yes.
 2 Q. Can you help us now as to how different that product was
 3 to the K15 that had been being sold up to that point?
 4 A. As far as I'm aware, I was just looking at the --
 5 an improved facer at that time.
 6 Q. Yes. So it was that heavier grade foil facing, the
 7 25-micron?
 8 A. Yeah.
 9 Q. I see, yes.
 10 I just want to show you now a major changes
 11 spreadsheet that's been put together by Kingspan for
 12 this Inquiry. If we go to {KIN00022307}, and we'll need
 13 the native version, and the tab at the bottom of the
 14 Excel spreadsheet titled "Major changes".
 15 If we go to line 4 of this spreadsheet, there we can
 16 see February 2004 on the left-hand side. Have you got
 17 that?
 18 A. Yes.
 19 Q. And it says there the change, "25 micron foil used in
 20 facer", do you see that there?
 21 A. Yes.
 22 Q. So this is a spreadsheet that's been put together by
 23 the Inquiry because we wanted to know what the different
 24 changes had been to the K15 product over time.
 25 A. Yeah.

18

1 Q. And that's what we see there.
 2 So, as you've explained, that product was given
 3 a heavier grade foil facing because, what, you thought
 4 that might have a better chance of passing in the
 5 large-scale fire testing? Is that right?
 6 A. It would offer more stability to the product under fire.
 7 Q. Yes.
 8 A. So yes.
 9 Q. Can you help us, was that foil facer perforated or
 10 unperforated?
 11 A. I believe that we had to -- sorry, Kingspan had to
 12 change to a perforated facer for manufacturing reasons.
 13 It was unable to produce it with an unperforated
 14 25-micron foil.
 15 Q. And wasn't that change when the new technology K15 came
 16 in, which we're going to come to in a little while, when
 17 you bought the Dutch company?
 18 A. Yes.
 19 Q. The Kesteren technology?
 20 A. Yes.
 21 Q. Am I right, then, that before that, the 25-micron foil
 22 that would have been used in 2004 and 2005 was
 23 unperforated?
 24 A. Yes, that's correct.
 25 Q. Yes.

19

1 Now, if we just go back to the activity report we
 2 were looking at, {KIN00005054}, and I want to ask you
 3 a little bit more.
 4 You have already mentioned it. You have said you
 5 were doing some testing under the single burning item
 6 tests. You say that there in the third sentence.
 7 Was that testing under the European testing and
 8 classification system?
 9 A. Yes.
 10 Q. Yes.
 11 A. That's the EN 13501 Euroclass testing.
 12 Q. Yes, and we've had Dr Lane explain to us what that
 13 testing is.
 14 You said earlier that that was to benchmark. So was
 15 that you testing it out on a smaller scale to get some
 16 sense of how it was performing in fire?
 17 A. The BRE indicated that if the product was Euroclass B,
 18 then it would stand a good chance of being successful
 19 when tested to BS 8414.
 20 Q. Right.
 21 A. So that's what I wanted for the product.
 22 Q. Who was it at the BRE that gave you that advice, can you
 23 remember?
 24 A. It was either Phil Clark or Sarah Colwell.
 25 Q. Right.

20

1 A. Probably Sarah Colwell.
 2 Q. And can you help us, did you do those single burning
 3 item tests?
 4 A. Yes, I think we tried.
 5 Q. And did it get a B in those tests?
 6 A. I think we only achieved Euroclass C.
 7 Q. Right, yes.
 8 We can see from this paragraph that the plan is, if
 9 you get some successful results with that smaller scale
 10 testing, "we will be moving towards a large scale
 11 testing scenario (BS 8414)".
 12 Can you help us, when was that first large-scale
 13 cladding test to BS 8414 carried out on K15?
 14 A. I think I recollect around 2005.
 15 Q. Yes.
 16 If we look at your witness statement on this, if we
 17 go to page 54 {KIN00022312/54}, paragraph 115(a), it's
 18 in the bottom half of that page, at (a), with reference
 19 to a May 2005 test, you're asked:
 20 "Was that the first test to BS 8414 carried out by
 21 Kingspan on a system incorporating K15?"
 22 You say:
 23 "Yes if this is the 60mm K15 with the
 24 non-combustible board in front."
 25 Now, we can tell you that the test to BS 8414

21

1 carried out on 31 May was carried out on a 60-millimetre
 2 K15 product, so does that mean that it's likely that
 3 that was the first test to 8414 on a system
 4 incorporating K15?
 5 A. That would be the first test on a system.
 6 Q. Yes.
 7 A. I did -- I have a recollection of testing without
 8 a facing, just to understand the performance without
 9 a cladding system in front of it.
 10 Q. Yes, I think we've got some records of that, and I'm
 11 going to take you to that in a moment, like a naked
 12 test, I think someone calls it --
 13 A. Yes.
 14 Q. -- with no board in front.
 15 A. No cladding in front of it.
 16 Q. Just the insulation, yes.
 17 Can we go now to an email from 19 March 2004, this
 18 is {KIN00003685}. If we look at the top half of the
 19 email first, we can see there this is an email that
 20 you've sent to someone called Mr Chilvers, Phil
 21 Chilvers, at the LABC Services, and also Andy Bowers at
 22 Tower Hamlets, and the heading is "Insulation above
 23 18m". Do you see that?
 24 A. Yes.
 25 Q. You have copied in here Steven Huxham, and is it right

22

1 that he was the business development manager for K15?
 2 Is that right?
 3 A. Yes, that's correct.
 4 Q. We can see from the first paragraph of your email there
 5 that the product under discussion is K15. It says:
 6 "Further to our recent discussions regards the above
 7 mentioned issue and the use of Kingspan Kooltherm K15
 8 (phenolic) insulation in facades above 18m we would ask
 9 you to comment on the following."
 10 Then there's further paragraphs underneath, and you
 11 say in the second paragraph:
 12 "K15 is a classed under a Building Regulations as
 13 being 'Class O' rated ..."
 14 Then you give the BS 476-6 and 7 references. You
 15 say it:
 16 "... exhibits less than 5% 'Smoke Obscuration' when
 17 measured under BS 5111: Part 1. It is also a thermoset
 18 material and therefore does not run, melt or drip when
 19 effected by heat. When subjected to a flame source
 20 a phenolic foam will form a surface char in much the
 21 same way as wood. This surface char will protect the
 22 underlying foam from the fire. Phenolic foam will also
 23 resist chemical breakdown at a significantly higher
 24 temperature than any other thermoset insulation. These
 25 are all very important quality when looking at fire

23

1 resistance of buildings and means of escape in the event
 2 of a fire."
 3 Do you see that there?
 4 A. Yes.
 5 Q. Then if we look at the third paragraph, I want to read
 6 that with you. You say:
 7 "Reading section 13.7 AD ... B ..."
 8 Pausing there, what we now know as 12.7 was back
 9 then 13.7 in a previous version of ADB; that's right,
 10 isn't it?
 11 A. I think so.
 12 Q. So it says:
 13 "Reading section 13.7 AD ... B 'in a building with
 14 a storey of 18m or more above ground level' the document
 15 suggest 'insulation material used in ventilated cavities
 16 in external wall construction 'should' be of limited
 17 combustibility'. Unfortunately the product does not
 18 meet the criteria for limited combustibility (BS 476
 19 part 11) as described in AD B. Therefore it is
 20 pigeonholed with the combustible insulations even though
 21 the char that forms when in contact with a flame source
 22 'limits the combustibility' of the product. Having
 23 spoke to the BRE regards their 'guidance' paper BRE 135,
 24 the purpose of the publication is so that products that
 25 are classed as combustible can be incorporated above 18m

24

1 in ventilated facades as long as attention is given to
 2 the correct detailing i.e. fire breaks etc. The first
 3 publication of this document provided statements of fact
 4 for basic construction types utilising a range of
 5 insulations from highly combustible EPS to less
 6 combustible Mineral Fibre materials, giving
 7 recommendations on their real use in ventilated façades.
 8 Within this document guidance is given for the use of
 9 fire barriers at every two storeys with combustible
 10 insulations. As the second edition is considered an
 11 extension of the document and not an amendment or
 12 replacement we believe this advice to still be credible
 13 as long as all risk areas have been assessed and the
 14 correct preventative measures have been adopted."

15 Do you see that there?

16 A. Yes.

17 Q. So those are long paragraphs, but the first point
 18 I wanted to ask you about this is: can we take it from
 19 all of that that you were well aware in March 2004 that
 20 K15 was not a product of limited combustibility?

21 A. Yes, that's correct.

22 Q. And you were well aware that, according to ADB, in order
 23 to be classified as a material of limited
 24 combustibility, a material would need to be tested to
 25 part 11 of BS 476 and meet certain criteria, or be

25

1 classified as A1 or A2 under the European classification
 2 system; that's right, isn't it?

3 A. Yes, that's correct.

4 Q. And K15 was never tested to part 11 of BS 476, was it?

5 A. I think I remember doing one at a later stage, but it
 6 was never going to meet that -- those performance
 7 requirements. I think we just did it just to box off
 8 that question.

9 Q. I see, yes. So it didn't get anywhere close to meeting
 10 the requirements it needed to meet to be of limited
 11 combustibility; is that right?

12 A. Yes, that's correct.

13 Q. Yes.

14 Is it also fair to say, based on this, that you did
 15 have a good understanding at the time of the relevant
 16 regulatory regime and the relevant guidance? You had
 17 obviously looked at it in detail by this point?

18 A. Yeah. We'd taken guidance on this document to try and
 19 understand what were the routes to compliance.

20 Q. Who had you taken that guidance from?

21 A. I think we'd spoke to everyone and anyone we could that
 22 had a knowledge of this document. So we'd talked to the
 23 BRE, I think we spoke to Anthony Burd at the time, we
 24 would speak to insurers, architects, anyone --
 25 fire engineers, that it was ... you know, this was kind

26

1 of a new area at the time, I think, utilising these
 2 products in this situation.

3 Q. Yes.

4 Now, looking at this email and the wording that you
 5 use in the third paragraph, looking at it now, do you
 6 think your description of the combustibility of the
 7 product is fair and accurate there?

8 You say, in the fourth line down:

9 "... it is pigeonholed with the combustible
 10 insulations even though the char that forms ... 'limits
 11 the combustibility' of the product."

12 Do you see that there?

13 A. Yeah, some of this terminology is pulled out of
 14 a standard answers document that was in circulation
 15 within Kingspan. I think it was maybe some FAQs from
 16 the EPFA website.

17 Q. Yes, I see.

18 Did you agree with those standard answers? Did you
 19 think that they were correct in terms of what you knew
 20 about its fire performance?

21 A. I believed them, yeah.

22 Q. When you say it was "pigeonholed with the combustible
 23 insulations", what do you mean by that, because it was
 24 a combustible insulation, wasn't it?

25 A. What Kingspan were trying to say was that phenolic was

27

1 a better combustible insulation than the other
 2 combustible insulations.

3 Q. I see.

4 A. And I think that was a fair comment.

5 Q. Okay, yes.

6 Then if we look on at the short fourth paragraph
 7 after that long third one, you say there:

8 "This product has been regularly accepted above 18m
 9 with many ventilated facades systems as long as
 10 proprietary fire barriers have been adopted."

11 Do you see that there?

12 A. Yes.

13 Q. Now, was that right, as far as you understood it, that
 14 in March 2004, the product had been regularly accepted
 15 above 18 metres with many ventilated façade systems?

16 A. As far as I understand, yes.

17 Q. Where would you have got that information from? How
 18 would you know that it had been regularly accepted above
 19 18 metres?

20 A. Because it was being used and we weren't ... it was
 21 being -- yeah, because it was being -- the
 22 specifications were being accepted.

23 Q. I see. So what you're saying is specifications were
 24 being written for buildings at this time --

25 A. Yeah.

28

1 Q. -- with K15 in them for above 18 metres, and those were
 2 simply being accepted?
 3 A. Yes.
 4 Q. Did you know on what basis they were being accepted?
 5 (Pause)
 6 A. Probably off the back of the guidance in BR 135, which
 7 states that you have to use fire barriers.
 8 Q. So do you think people at that time understood BR 135 to
 9 mean: provided you've got fire barriers in there, you
 10 can use phenolic foam even though it's combustible?
 11 A. That's how we interpreted BR 135 at the time.
 12 Q. I see.
 13 A. Yeah.
 14 Q. Okay. Was that your understanding at the time, that
 15 that's how you could justify K15 being used above
 16 18 metres, that it was looking back to the language of
 17 BR 135? Was that your understanding?
 18 A. It quickly evolved as soon as BS 8414 and Fire Note 9
 19 were readily available test methods.
 20 Q. I see.
 21 A. So then once they were set in stone as available, that
 22 was our route to compliance.
 23 Q. I see.
 24 If we go to the fifth paragraph of this email, you
 25 say there:

29

1 "Kingspan Insulation Ltd have tested a phenolic
 2 board behind a mortar render system at the BRE facility
 3 in March 2002. The product satisfied the criteria of
 4 the test (BS 8414-1:2002) by having no fire growth in
 5 the facade above the 5 m mark above the 3 mega watt
 6 combustion chamber. As a direct result of these
 7 discussions I have opened dialogue with the FRS
 8 department at the BRE and we are currently devising
 9 a test configuration using Kooltherm phenolic in
 10 a ventilated facade. As we are confident of this
 11 product's performance we have proposed to test the
 12 phenolic insulation without the use of fire barriers.
 13 On successful completion of this test we will have
 14 approval though BS 8414-1:2002 for using phenolic foam
 15 insulation (K15) above 18m without additional
 16 fire barriers."
 17 Do you see that there?
 18 Now, that first sentence there, just starting with
 19 that, you say:
 20 "Kingspan ... have tested a phenolic board behind
 21 a mortar render system at the BRE ... in March 2002."
 22 Is that right? Was there a large-scale BS 8414 test
 23 in March?
 24 A. This was, I think, the PermaRock test, the render
 25 system.

30

1 Q. Was that with K15?
 2 A. No, that was with Kooltherm K5.
 3 Q. So that was with a different phenolic board, is that
 4 right, that test?
 5 A. Essentially the same phenolic core --
 6 Q. Yes.
 7 A. -- with a different facer.
 8 Q. How was the facer different?
 9 A. It was -- it would be a glass tissue facer on the K5,
 10 but this was a product with a render directly in front
 11 of it.
 12 Q. Yes, I understand.
 13 A. So it's not directly comparable to a ventilated facade.
 14 Q. No.
 15 A. I'm just a bit taken back by my comments there about
 16 "without fire barriers".
 17 Q. Yes.
 18 A. The purpose of testing a render system is you would
 19 normally need fire barriers above -- at high-rise, but
 20 with -- if you had a BS 8414 test you could actually
 21 prove the use of the system without fire barriers.
 22 Q. Right.
 23 A. So I think I might have been just getting a little bit
 24 confused there with the ventilated -- with the
 25 unventilated test with a render test.

31

1 Q. Right, I see, yes.
 2 Are you aware that BS 8414-1 was not published until
 3 13 December 2002? So, where you say there in the first
 4 line that there was this test at the BRE facility in
 5 March 2002 and the product satisfied the criteria of
 6 BS 8414-1:2002, in fact we know that BS 8414-1 wasn't
 7 published until December 2002. Can you help us?
 8 A. Yeah, I recall we were testing to a draft version of the
 9 BS.
 10 Q. I see, yes.
 11 A. So for all essential purposes, it was the final test
 12 method.
 13 Q. I see, yes.
 14 Were you personally involved in that test in 2002?
 15 A. I witnessed it, and I looked over the test report, so
 16 yeah.
 17 Q. Yes.
 18 A. I was there.
 19 Q. Were you in the Burn Hall when the test took place?
 20 A. I was in the Burn Hall, yes.
 21 Q. You said it was with a glass tissue facer; was that
 22 a facer that was likely to perform, as far as you
 23 understood it, better than, say, the 25-micron
 24 foil facer?
 25 A. No. If anything, the foil would have better

32

1 performance.
 2 Q. I see.
 3 Who else at Kingspan was involved in that test?
 4 A. I can't recall, I'm afraid.
 5 Q. Okay. Yes, it's a long time ago.
 6 Do you remember how the tested system performed?
 7 A. This is the rendered system?
 8 Q. Yes.
 9 A. It was successful.
 10 Q. Right. Was there ever any formal test report produced?
 11 A. Yeah, but this would be owned by PermaRock.
 12 Q. I see. I see.
 13 Now, I want to move now to ask you about the
 14 Kesteren technology transfer that you have already
 15 referred to this morning.
 16 Now, we know that Kingspan acquired a Dutch company
 17 in around 2003 named Marec, a manufacturer of insulation
 18 that used a different technology in the manufacturing
 19 process when producing phenolic foam. That's right,
 20 isn't it?
 21 A. I think it was called Tarec. T-A-R --
 22 Q. Right. The name of the company?
 23 A. Yeah.
 24 Q. I see, yes.
 25 Is it right that this technology was then used to

33

1 produce K15 and was referred to internally at Kingspan
 2 as "new technology" or "Kesteren technology"; is that
 3 right?
 4 A. Yes, that's correct.
 5 Q. Is it right that Kesteren was the name of the plant in
 6 the Netherlands where it originated?
 7 A. Yes, that's correct.
 8 Q. Now, were you aware of what fire testing that new
 9 technology foam had been subjected to prior to
 10 acquisition of that company by Kingspan? Were you ever
 11 told that?
 12 A. I think we were told that it was class 0 to the UK test
 13 methods.
 14 Q. Okay. But nothing else?
 15 A. Nothing else, no.
 16 Q. Were all of Kingspan's phenolic products transferred to
 17 that new technology, as far as you understood it at the
 18 time?
 19 A. I believe some of the duct range, the duct insulation,
 20 may have remained the old technology.
 21 Q. Right.
 22 A. But I'm not sure.
 23 Q. The Inquiry understands that a Kesteren technology
 24 transfer group was set up to manage the transition from
 25 the old technology K15 to the new technology K15; is

34

1 that right?
 2 A. I believe so, yes.
 3 Q. Were you part of that group?
 4 A. I'm not sure if I was directly.
 5 Q. Okay. Did you have some involvement with that group?
 6 A. I may have. I don't recall.
 7 Q. Okay.
 8 Can you help us, how did new technology or Kesteren
 9 technology K15 differ from old technology K15?
 10 A. This is where the -- I'm limited on my chemical
 11 understanding of these products, so ...
 12 Q. Okay.
 13 A. I was told that it was a better, more robust product,
 14 more easily manufactured.
 15 Q. Okay.
 16 Is it right that the new technology K15 introduced
 17 perforations to the foil facer?
 18 A. That's correct.
 19 Q. I think you tell us in your witness statement that you
 20 believe that the perforated foil was essential for
 21 stable production; is that right?
 22 A. Yes, that's the case.
 23 Q. What does that mean, essential for stable production?
 24 A. I think it required a certain amount of drying. We had
 25 drying ovens installed, and I know they had various

35

1 problems with those ovens and they had to put new ovens
 2 in, so the product was improving slightly after the
 3 changeover.
 4 Q. Yes. You say there as well that you believe all
 5 Kooltherm process moved to perforated foil; is that
 6 correct?
 7 A. That's my understanding, yes.
 8 Q. You also say that Kingspan kept meticulous records of
 9 production batches to ensure traceability. Was that
 10 your understanding?
 11 A. Each production run would have an individual number, and
 12 there would be continuous factory production control on
 13 that run, and it would be tied back to a standard
 14 operating procedure.
 15 Q. Yes.
 16 A. So yes.
 17 Q. Just to be absolutely clear, old technology K15 had
 18 unperforated foil facers, and new technology had
 19 perforated foil facers; that's right, isn't it?
 20 A. As far as I understand, yes.
 21 Q. If we can go back to that schedule of changes we looked
 22 at before. This is {KIN00022307}. I want to look at
 23 row 7 this time.
 24 So here we have "Date" on the left-hand side,
 25 September 2006, and we can see the change. It says

36

1 there:
 2 "Kesteren Technology SOPs with perforated facing."
 3 I appreciate you haven't written this, but SOPs,
 4 what would that probably stand for?
 5 A. Standard operating procedure.
 6 Q. Yes, thank you.
 7 In the detailed description, it tells us:
 8 "Following its purchase of a Dutch manufacturer of
 9 phenolic foam, Kingspan adopted its methodology for
 10 producing phenolic foam. This was referred to in
 11 Pembridge as 'New Technology' or 'Kesteren
 12 Technology' ..."
 13 Pembridge is the place in Herefordshire, isn't it,
 14 where Kingspan --
 15 A. Yes, that's correct.
 16 Q. -- is based?
 17 It says:
 18 "This was referred to in Pembridge as 'New
 19 Technology' or 'Kesteren Technology' and had been being
 20 run successfully in Holland for many years before
 21 Kingspan acquired the business."
 22 I want to look at that column N on the right-hand
 23 side. It says there:
 24 "The PPDS shows that Vincent Coppock (R&D
 25 Manager) ..."

37

1 Is that the research and development manager?
 2 A. That's correct, yes.
 3 Q. "... was the Project Manager. His role was to work with
 4 the Dutch manufacturer to understand the Kesteren
 5 Technology and bring that technology to Pembridge,
 6 including arranging any trials. Malcolm Rochefort
 7 (Technical Director) updated the status of the PPDS
 8 confirming that fire testing was required for this
 9 project. Philip Heath (Technical Services Manager)
 10 signed off the part of the PPDS to confirm that
 11 physical/fire tests and certification were
 12 completed ..."
 13 Do you see that there?
 14 A. Mm-hm.
 15 Q. PPDS, does that stand for product and process
 16 development system?
 17 A. That's correct.
 18 Q. So that's a system for monitoring the development of
 19 that new product; is that right?
 20 A. That's an internal system that was devised, I think, as
 21 a requirement of ISO 9000.
 22 Q. I see, yes, a quality control process?
 23 A. Yeah.
 24 Q. So it's a quality control process to ensure that you
 25 understand the attributes of the new product; is that

38

1 right?
 2 A. That's correct.
 3 Q. Do you agree with what's said there in terms of who had
 4 responsibility for different aspects of this, including
 5 that Philip Heath undertook the fire testing and
 6 certification for the new technology K15?
 7 A. Yeah. This is the problem I had with this system, that
 8 although it's signed off, it doesn't necessarily mean
 9 that it's done, it means that it's in hand, I think.
 10 Q. I see.
 11 A. Because this -- the certification and the fire testing
 12 for these products, we were doing it for years after the
 13 changeover. So, yeah.
 14 Q. So I think what you're saying is after the change had
 15 been made, and certainly all products, including K15,
 16 were being produced with this technology, you were still
 17 trying to bottom out its fire performance; do you agree?
 18 A. We received the reports from Kesteren, but to obtain the
 19 certification, and because this came from a different
 20 marketplace with different market requirements, we
 21 needed to apply the UK test methods and the UK testing
 22 regimes to actually get the product signed off.
 23 I think we introduced our portfolio to the BBA, and
 24 they were in agreement that they would accept the
 25 product based on the test evidence that we had. So the

39

1 certification was -- it was ongoing, basically.
 2 Q. Yes. I'm going to take you back as a special topic to
 3 look at the BBA certification a little bit later.
 4 In terms of what's said there:
 5 "Philip Heath ... signed off the part of the PPDS to
 6 confirm that physical/fire tests and certification were
 7 completed ..."
 8 Can you help us as to what fire tests were involved
 9 in that signing-off process?
 10 A. I think at this time we were CE marking the products, so
 11 we were probably going through the European EN 13501
 12 fire tests.
 13 Q. Yes. Can you remember, specifically in relation to K15,
 14 whether it achieved any particular European EN 13501
 15 classification before the sign-off by Philip Heath?
 16 A. I can't recollect.
 17 Q. Okay.
 18 So can you help us as to what certification had
 19 actually been completed for the new technology K15
 20 before it was launched?
 21 A. We had British Board of Agrément certificates for most
 22 of the phenolic range, the standard, the floor board,
 23 the K3, the wall board, the K8. I think we may have had
 24 certification for K12 then. So we would have contacted
 25 the BBA, and they came in four times a year anyway, so

40

1 they would have monitored that process change.
 2 Q. Including on K15?
 3 A. K15 was not subject to certification at that point.
 4 Q. Right. So when K15 was being sold after this change, it
 5 was not subject to certification at that point; is that
 6 right?
 7 A. No, it took us quite a few years to obtain British Board
 8 of Agrément certification for K15.
 9 Q. Yes.
 10 Can you help us as to what test reports were
 11 received from Kesteren before you launched the product?
 12 A. I remember seeing BS 476-6 tests and BS 476-7, the
 13 surface spread of flame.
 14 Q. Yes, so those relevant to national class 0?
 15 A. Yeah.
 16 Q. But any other larger scale fire testing, did you get any
 17 such results from --
 18 A. I don't think there was any large-scale testing at that
 19 time.
 20 Q. Or European classification results? Single burning item
 21 testing?
 22 A. I think there was -- yeah, there was some SBI testing.
 23 Q. Can you remember what that said?
 24 A. I think there was a variety of classifications between B
 25 and C. However, the Kingspan facings were -- the UK

41

1 facings were predominantly different to those used in
 2 Kesteren, so it was a case of repeating these tests.
 3 Q. Yes, that's because their facings were perforated and
 4 your facings, prior to that, had been unperforated;
 5 that's right, isn't it?
 6 A. Sorry, the facings previously were unperforated --
 7 Q. Yes.
 8 A. -- in Pembridge, and the facings after were perforated.
 9 Q. Yes.
 10 A. As to the facings in Kesteren, I wasn't really aware --
 11 Q. Okay.
 12 A. -- of what they were.
 13 Q. I see.
 14 A. But I know that they weren't necessarily appropriate for
 15 the UK market.
 16 Q. Yes.
 17 I now want to ask you about the large-scale
 18 fire testing of K15. If we look at your witness
 19 statement at page 50 {KIN00022312/50}, you were asked at
 20 paragraph 111:
 21 "Who within Kingspan held overall responsibility for
 22 planning and arranging testing to BS 8414 on systems
 23 incorporating K15?"
 24 You say:
 25 "This would be myself as leader of the Project Team

42

1 and I would report to Tony Milchap(sic) or Philip Heath
 2 as the Technical Managers who in turn would report to
 3 the Technical Services Team lead by the Technical
 4 Manager."
 5 Do you see that there?
 6 A. Yes.
 7 Q. Who was it that Mr Heath and Mr Millichap reported to?
 8 Was that Mr Rochefort?
 9 A. Yeah. That would be Mr Rochefort, the technical
 10 director.
 11 Q. Yes.
 12 If we look at page 51 {KIN00022312/51} of your
 13 statement at paragraph 114(b), you tell us there that
 14 you project-managed all BS 8414 testing between 2002 and
 15 2014. That's right, isn't it?
 16 A. I believe that to be correct, yes.
 17 Q. You state in (c) just below that -- we ask whether you
 18 were present, and you say, "I was present at all the
 19 tests". Is that right?
 20 A. I believe that to be correct, yes.
 21 Q. Who appointed you to that role as project manager for
 22 all of that large-scale testing?
 23 A. That would have been my technical manager and the
 24 technical director at the time. So Malcolm Rochefort
 25 and Philip Heath or Tony Millichap.

43

1 Q. Yes.
 2 Philip Heath has said in his witness statement that
 3 you were given a large degree of autonomy. Would you
 4 agree with that?
 5 A. We were a very busy business. I was tasked with doing
 6 the testing and I was asked to find out what and how we
 7 were supposed to test. So ... but I was coming up
 8 against a brick wall, really, in the marketplace,
 9 because there were certain elements that didn't want to
 10 be involved in testing, and the BRE were still learning
 11 about the test method, so they weren't being able to
 12 give us really good guidance on the approaches to take.
 13 Q. I see.
 14 When you say you were coming up against a brick wall
 15 because there were certain elements that didn't want to
 16 be involved in testing, what do you mean by that? Which
 17 elements weren't wanting to be involved in testing?
 18 A. We started an association called Rainscreen Works where
 19 we sought to bring the cladding manufacturers, the
 20 fire barrier manufacturers, the framing people, into the
 21 fold so they could help us fund this testing, because,
 22 you know, at £10,000 a time, it was ludicrously
 23 expensive for us to get something that would be -- would
 24 cover a large proportion of the market. So we
 25 approached the major cladding manufacturers to try and

44

1 involve them in a BS 8414 test, and they refused at the
 2 time, because they were happy that they were being
 3 included in high-rise without this test evidence.
 4 Q. When you say happy they were being included in
 5 high-rise, do you mean happy that phenolic foam was
 6 being included in high-rise?
 7 A. No, they were --
 8 Q. Oh, happy that their product --
 9 A. They were happy that their products were currently being
 10 used in high-rise in front of, say, a non-combustible
 11 cladding -- a non-combustible insulation. Therefore,
 12 they felt that they didn't need to do any further
 13 testing.
 14 Q. Which cladding manufacturers were you thinking of here?
 15 A. I think it was Trespa, Eternit, all the leading cladding
 16 manufacturers we approached.
 17 Q. Yes.
 18 Now, back to Philip Heath. He says that you were
 19 given a large degree of autonomy, but he also says that
 20 he maintained a general supervisory role over you; is
 21 that right?
 22 A. That's correct, yes.
 23 Q. Were decisions about what components and materials to
 24 use in large-scale fire tests collective decisions of
 25 the technical team?

45

1 A. They were collective decisions between myself and my
 2 line managers.
 3 Q. Yes.
 4 A. And I tried to seek advice from the technical team where
 5 it was appropriate.
 6 Q. Yes.
 7 I just want to show you some passages in some other
 8 witness statements and get your view on it.
 9 If we look at Tony Millichap's statement, where he's
 10 dealing with your role in large-scale fire testing, if
 11 we go to {KIN00020821/56}, 11.13, he says there:
 12 "As I say above, the Fire Focus Group decided the
 13 testing strategy and delegated the execution of the
 14 strategy to Ivor Meredith, who would specify some of the
 15 finer detail, such as fire barriers, to address the
 16 variables in line with his experience and then go away
 17 and select the agreed materials."
 18 Do you see that there?
 19 A. Yes.
 20 Q. Is that an accurate description of how it worked in
 21 practice?
 22 A. I think somewhere around 2010 we introduced a fire focus
 23 group --
 24 Q. Yes.
 25 A. -- so I could get more official feedback from the other

46

1 parts of the business.
 2 Q. Yes.
 3 A. So, yeah, that's true, but I also utilised my
 4 line managers as well.
 5 Q. Who was part of that fire focus group?
 6 A. I think it was myself, Philip Heath, Justin Davies,
 7 Gwyn Davies, Vincent Coppock, Malcolm Rochefort,
 8 Linzi Hobbs.
 9 Q. So it was a big group of people?
 10 A. Yeah.
 11 Q. In terms of the design of the test rigs, if we go to the
 12 next paragraph down at 11.14, the top of the next page
 13 {KIN00020821/57}, he says this:
 14 "Ivor Meredith was responsible for the design of the
 15 test rig, including the preparation of drawings and
 16 plans. I would have overseen this process, providing
 17 technical input and feedback if necessary, particularly
 18 with regards to whether the test rig design was
 19 realistic."
 20 Do you see that there?
 21 A. Mm-hm.
 22 Q. So is that right, that you would design the test rig and
 23 prepare the drawings and the plans for it?
 24 A. No, I would use an external designer or contractor. But
 25 a cladding system would have a set number of elements in

47

1 it, and we would take advice from an appropriate
 2 architect or designer that we were incorporating the
 3 elements correctly.
 4 Q. Did Tony Millichap provide any technical input on how to
 5 design a test rig?
 6 A. I think Tony's input was like everyone's input; it was
 7 with regards to what materials we were essentially
 8 using.
 9 Q. He would have responsibility for that; yes?
 10 A. Yes.
 11 Q. Before his time, would that then have been Philip Heath?
 12 A. It would have been Philip Heath, yes.
 13 Q. Yes.
 14 Can you remember ever getting any feedback from
 15 Tony Millichap or Philip Heath about whether or not the
 16 test rigs you were designing were realistic and
 17 representative of cladding systems actually available on
 18 the market?
 19 A. We would have discussions with regards to what we were
 20 going to receive from the BRE after this, what the test
 21 result was going to mean. What we wanted was for the
 22 test result to have a large scope of application, for it
 23 to mean that our product could be used in conjunction
 24 with a number of different systems. Because of the cost
 25 and the time it took to arrange a test, we needed to get

48

1 as much out of it as possible. And this was our current
2 understanding with the BRE guiding us to test with
3 a non-combustible cladding system --

4 Q. Yes.

5 A. -- that we would be approved for all non-combustible
6 cladding systems. However, this -- after the test, they
7 removed that proviso.

8 Q. Yes, we're going to come on to this in just a minute.
9 I think what you're saying is your understanding was,
10 prior to the test you did in 2005 -- is that right --

11 A. Yeah.

12 Q. -- that the BRE had said, "If you can test one
13 non-combustible outer exterior, we will give you some
14 kind of report that says you can use it for any
15 non-combustible outer exterior"; is that right?

16 A. Yes, that's correct.

17 Q. And your evidence is that they then, I think you say in
18 your witness statement, pulled the rug from under your
19 feet and changed their minds; yes?

20 A. Yes, correct, yes.

21 Q. We're going to come back to that.

22 Just back to how you set up the test rig and
23 selected the materials. If we then look at
24 paragraph 11.16 in Mr Millichap's statement, he says:
25 "Ivor Meredith was responsible for checking that the

49

1 built system conformed with the drawings and plans.
2 However, the BRE (or other test house) always thoroughly
3 examined the build-up and would only sign-off on it
4 jointly with Ivor Meredith when it was satisfied that it
5 conformed with the drawings and plans."

6 Do you see that there?

7 A. Yes.

8 Q. Would you agree with that, that that's what the BRE did,
9 that they would always thoroughly examine the build-up
10 and only sign off on it when they were satisfied that it
11 conformed with the drawings and plans?

12 A. Yeah, the BRE would go through the build-up with
13 a fine-tooth comb and make sure that it was the same as
14 the plans that we were presenting.

15 Q. Right. And was that the case for all tests to BS 8414
16 carried out on systems incorporating K15?

17 A. Yes, definitely.

18 Q. Okay.

19 Who was it at the BRE that would be going through it
20 with a fine-tooth comb and checking it?

21 A. I think Phil Clark had the sort of control of the
22 laboratory, but there were guys underneath him that were
23 running around with clipboards checking this kind of
24 thing.

25 Q. Okay, thank you.

50

1 If we look at the next paragraph in Mr Millichap's
2 statement, he says at 11.17 there:

3 "Ivor Meredith was primarily responsible for
4 checking draft test or classification reports. Although
5 there was a lot of interest in draft test reports
6 internally when we were sent them, generally,
7 Ivor Meredith would be the only one to look at them in
8 detail and others would not really see the reports until
9 the final copy was produced and circulated.
10 Ivor Meredith would then explain the contents of a test
11 report to me and the rest of the technical team."

12 Do you see that there?

13 A. Yes.

14 Q. Now, do you agree with his description of how it worked
15 in practice within Kingspan in terms of who would be
16 looking at the test reports, and whether he would only
17 look at them in detail once the final copy was produced
18 and circulated? Is that an accurate description?

19 A. I would often circulate a draft, sometimes in paper
20 instead of email, to prevent it being used. But really
21 we would only check it to ensure that the correct
22 terminology was used for the Kingspan products --

23 Q. Right.

24 A. -- so it was then adequate for release into the
25 marketplace.

51

1 Q. When he says at the end of that paragraph,
2 "Ivor Meredith would then explain the contents of a test
3 report to me", would your managers be reading the test
4 reports themselves?

5 A. They would often need guidance as to where the product
6 was meeting the pass/fail criteria.

7 Q. I see. So --

8 A. So I would show them the graphical data at the back of
9 the report.

10 Q. And then, what, you would give them guidance on whether
11 that satisfied the criteria in BR 135?

12 A. At the time, yes.

13 Q. Does that mean that, without your guidance, they
14 wouldn't have been able to read and understand all of
15 the test reports themselves?

16 A. I don't think that's completely the case. This was
17 a very expensive test, this was a lot of money being
18 spent in this area, so I think they read it cover to
19 cover.

20 Q. Yes.

21 If we look at paragraph 11.21 now -- this is
22 a similar point to the one we looked at before, but
23 I just want to ask you about this -- in the middle of
24 page 58 {KIN00020821/58}, Mr Millichap says:

25 "From Kingspan, Ivor Meredith was responsible for

52

1 ensuring that the test rig matched the specification .
 2 However, the BRE were fastidious in examining the test
 3 rigs and their agreement to the drawings and
 4 specification provided.”
 5 Do you see that there?
 6 A. Yes.
 7 Q. Again, do you agree with that?
 8 A. Yes, I agree with that.
 9 Q. Yes.
 10 Now, can we just look at Philip Heath's witness
 11 statement. This is at {KIN00020709/29}, and I want to
 12 look at paragraph 4.43 on page 29. He says this :
 13 “Any written advice provided as to the use of K15
 14 over 18 metres (beyond the provision of product
 15 literature and, once received, the BBA and LABC
 16 certification), would have received input from either
 17 Ivor Meredith, Andrew Pack or myself, with Ivor Meredith
 18 providing the primary input into any bespoke advice as
 19 he was considered within Kingspan to be an expert in
 20 this regard. I would therefore only provide my input
 21 where he requested it or where he was unavailable.”
 22 Do you see that there?
 23 A. Sorry, whose statement is this?
 24 Q. Yes, sorry, this is Philip Heath's statement.
 25 A. Okay. Sorry, could you rephrase the question?

53

1 Q. I wanted to ask you in particular about where he says in
 2 the fourth and fifth line that you were considered
 3 within Kingspan to be an expert in this regard. So he
 4 starts the paragraph talking about any written advice
 5 provided about the use of K15 over 18 metres would have
 6 received input from various people, including you, and
 7 you would have provided the primary input into any
 8 advice about that, as you were considered within
 9 Kingspan to be an expert in that area.
 10 Is that how you understood it at the time? Did you
 11 understand people to think you were an expert in this at
 12 the time?
 13 A. Because I was the one that performed the test --
 14 Q. Yes.
 15 A. -- then I was the one with the expertise to understand
 16 the test .
 17 Q. Yes. So to that extent you agree with what he's said
 18 there?
 19 A. Yeah. Yes.
 20 Q. You sound a little bit doubtful. Is there something you
 21 want to qualify?
 22 A. I was very much involved in producing test reports, but
 23 I don't know if I was too busy to actually get involved
 24 in the literature side of it. I know I steered clear of
 25 the latter versions of the literature . It was

54

1 circulated to a wide group, and I was just involved in
 2 testing , predominantly. So, you know, we had the test
 3 evidence and that was what we'd provided to the
 4 marketing department.
 5 Q. I see. So when you talk about literature , are you
 6 talking about the marketing literature for K15?
 7 A. Yeah, any written advice, really .
 8 Q. Any written advice? So your evidence is , what, you
 9 would steer clear from that and just keep your focus on
 10 the testing ; is that right?
 11 A. Well, steer clear of the literature side of it . I was
 12 involved in written advice to customers.
 13 Q. Yes.
 14 A. So I did some of that . But we agreed our approach.
 15 Q. I see. So you steer clear of the literature side, but
 16 you agree that you were involved in some written advice
 17 to customers?
 18 A. Yeah.
 19 MS GRANGE: Yes, and I'm going to take you later to some of
 20 the written advice you gave on a couple of big projects .
 21 Yes.
 22 Mr Chairman, just one more question before I perhaps
 23 take a break.
 24 SIR MARTIN MOORE-BICK: That's all right, you take your own
 25 course.

55

1 MS GRANGE: Adrian Pargeter now, Mr Pargeter, who is the
 2 head of technical and marketing for Kingspan, if we
 3 could just look at his third statement. This is at the
 4 top of page 23 {KIN00022610/23}, paragraph 3.25. So
 5 he's asked:
 6 “Who was more senior to Mr Meredith in this specific
 7 area of work within Kingspan?”
 8 He is talking about K15 and testing of K15, and he
 9 says this :
 10 “No one at Insulation UK was more knowledgeable than
 11 Ivor in this specific area of work, although Ivor always
 12 reported to someone in a position more senior to him
 13 within the business.”
 14 Do you see that there?
 15 A. Yes.
 16 Q. Again, would you agree with that, that there was no one
 17 within Kingspan that was more knowledgeable than you,
 18 but that you always reported to someone in a position
 19 more senior to you within the business?
 20 A. Yes, that's correct.
 21 MS GRANGE: Yes.
 22 Mr Chairman, I think that's probably a good moment
 23 for a break.
 24 SIR MARTIN MOORE-BICK: Yes, good, all right.
 25 Well, Mr Meredith, we are going to have a short

56

1 break now. We will come back at 11.35, please, and
 2 I have to ask you on this occasion and others when you
 3 leave the room, please don't talk to anyone else about
 4 your evidence or anything that touches on your evidence.
 5 You can talk to people about anything else, but not
 6 about your evidence. All right?
 7 THE WITNESS: Okay.
 8 SIR MARTIN MOORE-BICK: Thank you. Would you like to go
 9 with the usher, please.
 10 (Pause)
 11 Good, 11.35, please.
 12 (11.18 am)
 13 (A short break)
 14 (11.35 am)
 15 SIR MARTIN MOORE-BICK: Right, Mr Meredith, all ready to
 16 carry on?
 17 THE WITNESS: Yes.
 18 SIR MARTIN MOORE-BICK: Good. Thank you very much.
 19 Yes, Ms Grange.
 20 MS GRANGE: Thank you.
 21 I want to talk now about the 2005 BS 8414 test. We
 22 know that, on 31 May 2005, Kingspan tested a system at
 23 the BRE using K15 as recorded in report 220876, and that
 24 test report is then dated 8 December 2005. We also
 25 know -- but we're not going to get into it now -- that

57

1 the BR 135 classification report in relation to that
 2 test was not issued until ten years later, on
 3 28 September 2015. That's right, isn't it?
 4 A. That's correct.
 5 Q. Now, whose decision was it to undertake that May 2005
 6 8414 test?
 7 A. It was a market requirement for the use of an insulation
 8 above 18 metres, so it was a needs must.
 9 Q. Right, yes. And who within Kingspan authorised that
 10 test to be undertaken? Who would have been the ultimate
 11 decision-maker?
 12 A. It would have been between Philip Heath and
 13 Malcolm Rochefort. But due to the expense, it would
 14 have gone to the managing director.
 15 Q. And the managing director at that time, who was that?
 16 A. Peter Wilson, I believe.
 17 Q. What was the purpose of carrying out that test? What
 18 did Kingspan hope to achieve by it?
 19 A. To show that K15 could be accepted for use above
 20 18 metres.
 21 Q. Did you have discussions with the BRE about how that
 22 test might be used prior to it being carried out?
 23 A. The BRE were learning as we were learning. Every test
 24 we performed, they would send many people to watch it,
 25 because they were still agreeing their EXAP rules, their

58

1 scope of application. So there were no firm rules to
 2 say: if you tested in this configuration, it would be
 3 acceptable for use in these scenarios. So -- although
 4 the BRE had suggested that if we test with
 5 a non-combustible cladding, we will be acceptable for
 6 use with all non-combustible cladding systems.
 7 Q. Who was it who suggested that within the BRE?
 8 A. I believe it was Sarah Colwell.
 9 Q. When you say you believe, were you present when that
 10 conversation took place or did someone tell you about
 11 it?
 12 A. I would have had that conversation with her on the
 13 telephone or face-to-face.
 14 Q. Yes.
 15 You have said in your witness statement -- just for
 16 the transcript, this is at paragraph 115(e) on page 55
 17 {KIN00022312/55} -- the decision to carry out this test
 18 was a collective decision with all senior members of the
 19 technical team to test the particular system that was
 20 tested in 2005; that's right, isn't it?
 21 A. I collated the materials together and would have
 22 presented them to my line manager. This was the -- the
 23 one in 2005 was our first step of potentially many
 24 tests, so it was agreed that this was a good starting
 25 point.

59

1 Q. And your line manager, was that Philip Heath at the
 2 time?
 3 A. That would have been Philip Heath at the time, yes.
 4 Q. Yes.
 5 I want to show you an email that you wrote to
 6 David Hoare and Sarah Colwell of the BRE on 30 May 2005,
 7 this is the day before the test took place. This is at
 8 {KIN00004791}. If we could blow that up a little bit
 9 more. Yes.
 10 So it's from you to those two individuals at the
 11 BRE. What you do there is essentially list people who
 12 are going to be attending the test tomorrow. Do you see
 13 that there?
 14 A. Yes.
 15 Q. You have yourself at 1, Philip Heath at 3, Steve Huxham
 16 at 4, and others within Kingspan. At 6 you have
 17 Andrew Schutt from Eurofox. I think he helped you build
 18 the rig, didn't he?
 19 A. Yes, that's correct.
 20 Q. In the second to last paragraph in this email beginning
 21 "Please", I just want to read this out, you say:
 22 "Please could you only discuss the results with
 23 myself or my boss (Philip Heath) I don't know whether
 24 there will be a few moments after the test to do this
 25 (after attendees 4-7 have left) or whether we could fit

60

1 this in on Wednesday. I would like a copy of the video
 2 preferably to turn into mpeg format."
 3 Then you ask about the video and what they can
 4 offer.
 5 So just focusing on that first part of that
 6 paragraph, where you said, "Please could you only
 7 discuss the results with myself or my boss
 8 (Philip Heath)", why was that? Why did you want to have
 9 that discussion only when the other attendees had left?
 10 A. Because I didn't want our sales team running away with
 11 news about a successful test until myself and Phil had
 12 understood how we could disseminate that information to
 13 the marketplace.
 14 Q. Right, I see. So you wanted it to be a decision that
 15 you and Philip Heath took first about how successful --
 16 A. Well, we needed to understand the results and what we
 17 could then do with it so he could -- we could relay it
 18 back up the chain to the Kingspan management.
 19 Q. In fact, did that discussion take place after the test?
 20 Was there a discussion with just you and Philip Heath
 21 and the BRE about the test afterwards?
 22 A. There would have been a point where -- I don't know if
 23 Phil was involved in it -- I would have got the
 24 so-called green light from the BRE staff. They're not
 25 officially allowed to say, but they can give you

61

1 a print-out of the unverified thermocouple data, and you
 2 can see quite clearly that the 600 degrees temperature
 3 threshold was not hit at the second level thermocouples,
 4 therefore that was seemingly a test success.
 5 Q. Yes.
 6 A. Obviously that isn't ratified until you get the full
 7 test report, but it's very rare that they would screw up
 8 their thermocouple results that badly that you didn't
 9 get the pass that you thought you'd got.
 10 Q. I think what you're saying is that if you can see it
 11 hasn't reached the 600 degrees, given that the test
 12 standard allows you to hit that but for no more than
 13 30 seconds --
 14 A. Yeah.
 15 Q. -- if it's not hit that at all, then you have some idea
 16 that it's met that particular part of the BR 135
 17 criteria; would you agree?
 18 A. Yes, that's correct.
 19 Q. And there are other parts of the BR 135 criteria, aren't
 20 there?
 21 A. I recollect it's breaching the top of the rig, and
 22 I think falling debris is part of the LPCB certification
 23 side of that test method, so --
 24 Q. Mechanical performance?
 25 A. Yeah, yeah.

62

1 Q. In terms of the materials used in the test, can we go to
 2 Philip Heath's witness statement first on page 72, this
 3 is {KIN00020709/72}.
 4 A. Sorry, can I just add?
 5 Q. Yes.
 6 A. I saw the name David Hoare there.
 7 Q. Yes.
 8 A. He was actually probably my principal contact in written
 9 form or discussions prior to Phil Heath -- not
 10 Phil Heath, sorry, Phil Clark taking over the Burn Hall.
 11 So although I would discuss with Sarah as much as
 12 I could, it would be David would be my day-to-day
 13 contact.
 14 Q. Yes, that's really helpful.
 15 A. So it might have been him that I had that discussion
 16 with about the non-combustible boards.
 17 Q. I see. So the discussion that you thought might have
 18 been with Sarah Colwell about being able to extrapolate
 19 from this test might have been with Philip Hoare?
 20 A. David Hoare, yes.
 21 Q. Sorry, David Hoare.
 22 So now looking at Mr Heath's witness statement,
 23 page 72, {KIN00020709/72}, at 11.11 at the bottom of
 24 that page -- we might have looked at this before -- it
 25 says:

63

1 "Ivor Meredith would have selected the exact
 2 materials. However, the decision to use a
 3 representative non-combustible cladding panel in the
 4 2005 BS 8414 Test would have been the result of more
 5 general discussions, which are likely to have taken
 6 place primarily between me, Ivor and the commercial team
 7 but also as part of wider discussions with the Technical
 8 Team. I agreed with the approach taken and the use of
 9 the selected panels as being representative of
 10 non-combustible cladding panels."
 11 Do you see that there?
 12 A. Yes.
 13 Q. Do you agree with what he said there about the decision
 14 to use a representative non-combustible cladding panel
 15 would have been the result of more general discussions
 16 with him, you and the commercial team, and also wider
 17 discussions within the technical team? Do you agree
 18 with that?
 19 A. Yes, I agree with that.
 20 Q. Now, we know it's right, isn't it, that you built the
 21 test rig yourself with some help from Eurofox? Is that
 22 right?
 23 A. That's correct, yes.
 24 Q. Who designed the rig for this test, can you help us?
 25 A. We -- I worked with Eurofox. We took guidance from the

64

1 BRE on the position of the fire barriers, based on what
 2 they had seen previously with other cladding systems.
 3 Q. What advice did they give you about that? What kind of
 4 advice?
 5 A. I think it was in respect of the positions of the
 6 fire barriers.
 7 Q. Is how to position the fire barriers in order to pass
 8 the test?
 9 A. The proximity of the fire barriers to represent floor to
 10 floor fire barrier requirements.
 11 Q. I see. So where the fire barriers should go --
 12 A. Yeah.
 13 Q. -- to be representative of how it would work in
 14 practice --
 15 A. Yes, yes.
 16 Q. -- on a cladding system? I see.
 17 Let's go to the test report now, {BRE00002511}.
 18 This is the test report. As I mentioned earlier, the
 19 test was done on 31 May 2005, but the test report itself
 20 is dated December 2005. We can see that there in the
 21 bottom right-hand side.
 22 If we look on at page 6 {BRE00002511/6} within this
 23 report, under the heading "Trade name" -- we've got
 24 "Description of product" at the top of this page, if we
 25 can blow that first half up. We have, under "Trade name

65

1 and specimen identification code or number" we have:
 2 "Kooltherm K15 Zero ODP Phenolic Rainscreen
 3 Insulation Board."
 4 Do you see that there?
 5 A. Yes.
 6 Q. Can you help us, what does that mean? We know what
 7 Kooltherm K15 is there, but "Zero" --
 8 A. Zero ozone depletion potential. This was just
 9 the latest marketing terminology for the product.
 10 Q. I see.
 11 A. I think it was ... yeah, it was because all our products
 12 we were claiming zero ODP when they were zero ozone
 13 depletion potential.
 14 Q. Was this old technology K15, since new technology was
 15 yet to be produced in the UK?
 16 A. I think it must have been.
 17 Q. Yes. That's our understanding, but we wanted to check
 18 with you.
 19 A. Yeah.
 20 Q. What about the foil facers, were they perforated or
 21 unperforated?
 22 A. If it was old technology, it would have been
 23 unperforated.
 24 Q. Was it your understanding that the K15 used in this test
 25 was the same product that was being offered for sale by

66

1 Kingspan in the market at this time, so in May 2005?
 2 A. I believe it was, yes.
 3 Q. Now, staying on page 6, if we look two below that, we
 4 get "Fixing Details" in bold, and we've got details of
 5 the Kooltherm again in the first line. Then if you look
 6 at the end of the second line, we can see it gives
 7 a description of the cladding that was used for this
 8 test, and you have:
 9 "1200 mm x 900 mm x 6 mm thick cement particle
 10 boards, manufactured by UAC, were mechanically fixed at
 11 600 mm centres to an aluminium railing system which was
 12 also mechanically fixed to the block work substrate."
 13 Do you see that there?
 14 A. Yes.
 15 Q. As far as you were aware, were those cement particle
 16 boards non-combustible?
 17 A. It was a non-combustible cement particle board
 18 manufactured by UAC Berhad, they were a Middle Eastern
 19 manufacturer. But, yes, it was non-combustible, as far
 20 as I was aware.
 21 Q. Is that description of the outer cladding given there
 22 correct, that it had those dimensions, 6-millimetre
 23 thick cement particle boards manufactured by UAC? Is
 24 that description accurate?
 25 A. Yes, that's definitely accurate.

67

1 Q. Can you remember who ordered the boards that were to be
 2 used as that outer cladding?
 3 A. There's probably a record in my email. I know I --
 4 I think I got them from speaking to Andrew at Eurofox.
 5 He put me onto a cement particle board supplier,
 6 I believe.
 7 Q. Yes.
 8 A. And I got a shipment sent across for the purposes of
 9 this test.
 10 Q. And they were based in the Middle East, this
 11 manufacturer?
 12 A. Yes.
 13 Q. So not a UK company?
 14 A. Not a UK company, no.
 15 Q. Do you know whether any record was kept of the boards
 16 that were used, other than what we see on this test
 17 report?
 18 A. I was under the impression the BRE take a sample of all
 19 the different elements of the build-up.
 20 Q. Right.
 21 A. This is something that, if you go for certification, as
 22 opposed to just testing, this was something we were
 23 moving towards and hoping to achieve eventually. So
 24 later tests I would ask the BRE to keep a sample of the
 25 insulation board and a sample of all the other materials

68

1 so it could be tied back to the test result.
 2 Q. Yes.
 3 What discussions had taken place within Kingspan as
 4 to what should be used as the external outer surface on
 5 this test rig? How had you come to fix upon these
 6 particular cement particle boards manufactured by that
 7 manufacturer?
 8 A. We tried to involve lots of different cladding
 9 manufacturers, hoping that they would put something
 10 towards the test and help us build the rig. There was
 11 a bit of a reluctance at that time, so we just took
 12 a non-combustible board that was available and we just
 13 fitted it to the outside of the cladding to represent
 14 a non-combustible cladding system. That was the idea,
 15 that was what we were working towards.
 16 Q. And when you say "a non-combustible board that was
 17 available", available to who, in what market?
 18 A. That you could buy in the UK market.
 19 Q. Right.
 20 A. Obviously this wasn't supposed to be a cladding system,
 21 this was just supposed to be representative of
 22 a non-combustible outer layer. The point of BS 8414 is
 23 the fire will, regardless of the materials, inevitably
 24 break into the space above the window, and it's the
 25 speed it spreads up the insulation, how the

69

1 fire barriers stop it from spreading, the buckling of
 2 the framing system for the cladding, and to some degree
 3 the type of cladding used, which will decide whether
 4 this system meets the requirements.
 5 Q. Yes, and that's quite an important point I think you
 6 have just made there. You said this wasn't supposed to
 7 be a cladding system, this was just supposed to be
 8 representative of a non-combustible outer layer.
 9 A. Yes.
 10 Q. So would you accept that, as constructed, it wasn't
 11 representative of a real life, real world cladding
 12 system at that time?
 13 A. No, we were looking just to put a non-combustible layer
 14 on the outside, so it could be extrapolated by the BRE
 15 to apply to many non-combustible outer layers, or any
 16 non-combustible outer layer.
 17 Q. I see.
 18 You began that answer with "no"; did you in fact
 19 mean yes? The question I put to you was:
 20 "So would you accept that, as constructed, it wasn't
 21 representative of a real life, real world cladding
 22 system at that time?"
 23 You said, "No". Do you mean no?
 24 A. It's not directly representative.
 25 Q. Right.

70

1 A. Yes.
 2 Q. Right, thank you.
 3 Who in Kingspan had been involved in those
 4 discussions about what outer layer to choose?
 5 A. It would have been myself and Philip Heath. We were
 6 solely, perhaps naively, looking for a non-combustible
 7 board just to go on the outside. This was our first
 8 real step into this testing --
 9 Q. When you say, "We were solely, perhaps naively, looking
 10 for a non-combustible board", what do you mean when you
 11 use the words "perhaps naively"?
 12 A. Well, later, after seeing a lot of tests, I would
 13 understand that the size of the cladding panel would
 14 potentially have a bearing. There is a multitude of
 15 factors.
 16 Q. Yes.
 17 A. This is why the BRE couldn't tie down any EXAP rules at
 18 the time.
 19 Q. Yes.
 20 A. Because it was just going off in too many different
 21 directions, basically, the variations that could be --
 22 you could get in one cladding system. So to get
 23 a catch-all test result was not possible.
 24 Q. Yes. So I think what you're saying is each time you
 25 tested, you realised how complex this area was in terms

71

1 of system testing.
 2 A. Definitely.
 3 Q. And that unless you have actually tested the system
 4 you're using, you actually can't predict how it's going
 5 to perform in fire, can you?
 6 A. Not at that point, no.
 7 Q. No.
 8 A. I mean, the BRE did suggest that there would be --
 9 myself and Phil had a meeting with the BRE when Kingspan
 10 Metl-Con, we went down there with the director, and the
 11 discussions were, "Okay, we want to approve these five
 12 systems", and they were five systems, and the BRE were
 13 talking about somewhere in the region of £300k's worth
 14 of testing. But that wouldn't box off anything, that
 15 would just tell them -- they would be able to then tell
 16 us how much more testing we'd have to do to actually get
 17 where we needed to be. So it was an impossible
 18 situation for us.
 19 Q. That meeting you have just talked about with the BRE,
 20 can you remember roughly when that occurred?
 21 A. I can't, unfortunately. I think it was -- it might have
 22 been some time after this test, and before
 23 Kingspan Metl-Con did their testing.
 24 Q. A couple of times you have referred to EXAP rules.
 25 A. Extended application rules.

72

1 Q. Exactly. For the benefit of those listening, what you
 2 mean is rules that might allow you to take one test and
 3 extrapolate into other scenarios, that's what you mean
 4 by that?
 5 A. Yeah, there are known EXAP rules for, say, the roofing
 6 test.
 7 Q. Yes.
 8 A. But there aren't any at this point -- well, there
 9 weren't any that I was aware at this point for BS 8414.
 10 Q. No, yes. So for fire resistance, you sometimes got EXAP
 11 rules; is that fair?
 12 A. That's correct.
 13 Q. But for this kind of large-scale fire testing, there
 14 were no such rules, were there?
 15 A. No, and the rules would only be created after a number
 16 of tests were completed.
 17 Q. Yes, precisely.
 18 Can we look at the second witness statement of
 19 Adrian Pargeter at this point, {KIN00020824/100}, and
 20 I want to look at paragraph 10.57 there.
 21 He is talking there, we can see in the first line,
 22 about the 2005 BS 8414 test. He says there in the first
 23 line it:
 24 "... refers to a 6mm UAC cement particle board being
 25 used as the external cladding element of the system

73

1 tested. This would be unusual and would not be
 2 representative of an external cladding element because
 3 such material is not designed for an external
 4 application and may be subject to degradation upon
 5 weathering. However, having investigated the issue
 6 further, Kingspan is of the belief that the test report
 7 incorrectly references the type of cladding used and
 8 that the cladding actually used in the external cladding
 9 system tested in 2005 was a fibre cement board
 10 (non-combustible) (as opposed to cement particle board
 11 which is generally rated as Euroclass B), which would be
 12 more representative of an external cladding system used
 13 in practice at that time. But I think it likely that
 14 the fibre cement board was chosen to simply replicate
 15 a non-combustible façade element as representative of
 16 the cladding used at the time."
 17 Do you see that there?
 18 A. Yes.
 19 Q. I want to ask you, as the person who constructed the rig
 20 and was present and was intimately involved with it,
 21 whether you agree with what he says there, where he is
 22 saying it wasn't a cement particle board but it was
 23 a fibre cement board? Do you agree with that?
 24 A. I would struggle -- I'm not au fait with those sort of
 25 materials to know what the difference between the two

74

1 is.
 2 Q. Right. But as far as you were concerned, was the
 3 description given in the test report an accurate one?
 4 A. I would have sent the UAC datasheet to the BRE, and they
 5 would have then taken that information and used that to
 6 create the description, which appeared in the test.
 7 Q. Right, yes, and do you think you did have a UAC
 8 datasheet at the time?
 9 A. I believe I had something. It's a long time ago, so
 10 I can't recollect, to be honest.
 11 Q. I see.
 12 Let's go to a photograph, {KIN00005079}. This is
 13 a close-up photograph that I think you took of the
 14 cladding boards. So these are photographs from the rig
 15 in the 2005 test.
 16 Are the exterior cladding boards we're referring to
 17 here the ones at the bottom here in grey?
 18 A. Yes, that's correct.
 19 Q. Does that help in any way as to whether this was
 20 a cement particle board or a fibre cement board?
 21 A. I can't see whether that had fibres in it or particles,
 22 unfortunately, sorry.
 23 Q. Right, yes.
 24 I'll come to ask about it in a moment, but can you
 25 just explain to us what else we're seeing above that in

75

1 this photograph? What's the black bar across --
 2 A. Okay, that's the Promat RSB rainscreen barrier, which is
 3 a ventilated graphite-backed intumescent fire barrier
 4 that was on the marketplace at the time.
 5 Q. Right.
 6 A. That's our -- essentially our fire barrier at floor
 7 level.
 8 Q. So were there a number of those within this rig?
 9 A. There was one right the way across the rig horizontally
 10 at about -- I think it was 1 metre above the window
 11 aperture, and then again just below, half a metre below,
 12 the second level thermocouples.
 13 Q. Yes. I see. Otherwise, are we looking at the K15 and
 14 it's foil facer?
 15 A. That's the K15, yes, with the --
 16 Q. Underneath that?
 17 A. Yeah.
 18 Q. Yes. Okay.
 19 Just going back to what Adrian Pargeter said in his
 20 witness statement about it being a fibre cement board
 21 and not a cement particle board, have you ever been
 22 asked since that time exactly what material was used in
 23 the test?
 24 A. I think we would have just referred to the report, but
 25 it was --

76

1 Q. Yes.
 2 A. At the end of the day, it was a non-combustible board to
 3 represent a non-combustible cladding, so --
 4 Q. Yes.
 5 A. Like I say, it's accepted that a fire -- a flashover
 6 fire breaking out of a window will destroy the lintel
 7 and it will break into the lower part of the façade
 8 system through the cladding.
 9 Q. Yes.
 10 A. So if we were to do that test with a cladding that was
 11 20-mil or something that was totally impregnable, you
 12 wouldn't actually be testing the insulation because you
 13 would just be testing a non-combustible cladding system.
 14 So we put something there that would fail at that
 15 critical area, allowing the fire to get into the
 16 chimney, effectively, and then we would see if the
 17 fire barriers worked in conjunction with the K15.
 18 Q. Yes.
 19 Can we go now to a series of emails between you and
 20 Mr Clark and Mr Hoare in November 2005. This is at
 21 {BRE00003278}. This is a series of emails between you
 22 and Phil Clark and David Hoare in November 2005.
 23 In the top email, so in the most recent of the
 24 chain, you're proposing the actual text to be used to
 25 describe certain components in the test report.

77

1 A. Yes.
 2 Q. Do you see that? So you have written:
 3 "Phil,
 4 "With regards to the ventilated cavity barrier
 5 please use the descriptions below for the test report."
 6 So we can see you're giving text to put in the test
 7 report about what the materials were; is that correct?
 8 A. Yeah, I'm taking the manufacturer's description and just
 9 stripping it down, removing any company terminology like
 10 Promat RSB and Intumex LPSK. I'm just breaking it down
 11 into what the material was.
 12 Q. Yes.
 13 Then if we look in the fourth line down of the third
 14 paragraph, it's in black, it begins:
 15 "For the confidential section of the BRE Report ..."
 16 It's the second black paragraph as opposed to the
 17 blue text on that page, and do you see it says:
 18 "For the confidential section of the BRE Report
 19 I would propose ..."
 20 Can you help us, what is the confidential section of
 21 the BRE report?
 22 A. My understanding was that the BRE would hold a log of
 23 the materials utilised in the test, and it was the
 24 Promat RSB that was used, so therefore it needed to go
 25 in the actual -- the main folder that the BRE hold on

78

1 this test, but with regards to the version that we
 2 wanted to put out in the marketplace, we wanted to
 3 remove potentially the reference to the Promat product,
 4 because maybe they didn't contribute any monies towards
 5 this test method or this testing.
 6 Q. Or might it be that you wanted to remove reference to
 7 the specific product so that you could use it to say
 8 that it supported a wider range of cladding systems than
 9 the one specifically in this test? Could that also be
 10 the reason?
 11 A. We were looking to make the report general, yes. That
 12 was our end goal, was to have something that could be
 13 used in as much as it could, basically.
 14 Q. Yes. So the more generic the description of what was
 15 tested, the more helpful that would be, wouldn't it, for
 16 Kingspan in its marketing of K15?
 17 A. Yes, certainly. A fire barrier has an independent test
 18 requirement under the British Standard, so we were
 19 hoping eventually, say that the Promaseal RSB
 20 performed -- had one hour's fire resistance, we would
 21 want other one-hour fire resistant fire barriers to also
 22 be acceptable. I'm constantly thinking of the future
 23 marketing of the product here.
 24 Q. Yes.
 25 Back to that line about the confidential section of

79

1 the report, how had you become aware that there would be
 2 a confidential section of the report at all? How did
 3 you know that?
 4 A. I think that's just my terminology. I -- what -- I was
 5 happy for them to keep that information on file, I just
 6 wanted a more generic fire barrier discussed within the
 7 main report.
 8 Q. Yes.
 9 Can we go now to an email sent before the test, this
 10 is {KIN00005075}. It's an email you sent on
 11 26 May 2005. So if we can blow up that email, it's from
 12 you and it's to a number of generic technical services
 13 email addresses, and also copying in Malcolm Rochefort.
 14 Can you see that at the top?
 15 A. Yes.
 16 Q. You say:
 17 "Please find enclosed pictures of the BS 8414-1 test
 18 rig I have been constructing at BRE Watford this and
 19 last week."
 20 A. Mm-hm.
 21 Q. Do you see that there?
 22 Just to be clear, BS 8414-1 is a test on a masonry
 23 structure, isn't it, as opposed to a steel frame
 24 structure?
 25 A. Yes, that's correct.

80

1 Q. Then you say this :
 2 "The construction utilises an aluminium bracket
 3 system, 60mm Kooltherm K15, a 40mm ventilated cladding
 4 zone which is fitted with ventilated cavity barriers at
 5 floor level. The outer face is clad with a sacrificial
 6 cement board which will be destroyed by the 3 megawatt
 7 fire that will be breaking out of the aperture at the
 8 bottom of the facade. The idea is that the fire will
 9 not spread up the cladding zone of the remaining
 10 insulated construction outside of the burn area. When
 11 this happens we will have a verified K15 is the insulant
 12 of choice for use in high rise situations (as per the
 13 Fire Note 9 references in Part B of the
 14 Building Regulations).
 15 "A sample of the intumescent ventilated fire break
 16 is situated on my desk should you wish to have a closer
 17 look."
 18 Now, I'm going to come back in a moment to that
 19 description you give there of a "sacrificial cement
 20 board", I'll pick that up separately. But I just want
 21 to ask you for the moment: you have said at the end of
 22 that email that a sample of the intumescent ventilated
 23 firebreak, a cavity barrier, is on your desk and you
 24 invite people to go and see it if they want to. Why did
 25 you do that?

81

1 A. So they could be familiar with the kind of materials
 2 they needed to talk up to gain acceptability for use of
 3 K15.
 4 Q. Yes. As we have already discussed, it was a Promat
 5 Promaseal RSB cavity barrier; yes?
 6 A. Yes, that is correct.
 7 Q. Did you yourself select that particular cavity barrier
 8 for use in this test?
 9 A. I think it was one of the only ones available in the
 10 marketplace at the time, so I took it and ran with it,
 11 basically.
 12 Q. Did you understand that that cavity barrier used in that
 13 test was representative of the type of cavity barrier
 14 which might be used on a rainscreen cladding system?
 15 A. That was what Promat promoted that product as, yes.
 16 Q. I see.
 17 Were you aware that the Promat cavity barrier had
 18 a very high graphite content?
 19 A. It was a graphite -- yeah, it was an intumescent
 20 graphite cavity -- yeah, fire barrier.
 21 Q. What I want to put to you is that this particular
 22 cavity barrier was not a commonly used or widely
 23 available product. What's your response to that?
 24 A. I was not aware of that.
 25 Q. Yes.

82

1 On the test report itself, we see -- let's just go
 2 to this for a moment, {BRE00002511/6}. At the bottom of
 3 that page you see some words headed "Installation of
 4 Specimen", about three headings up. Do you see that
 5 there in black? It says:
 6 "Installation of Specimen: The test sponsor
 7 undertook the supply and installation of the test
 8 specimen. BRE staff undertook no supervision of this
 9 process."
 10 Do you see that wording?
 11 A. Yes.
 12 Q. Now, is that right? Because I think you have told us
 13 that in fact the BRE do carefully check the installation
 14 of the system, to check that what's installed is what
 15 was planned to be installed.
 16 A. I think this is a comment towards the certification
 17 approach of testing, where they would come into the
 18 factory, they would witness the production run, they
 19 would sign the production batches, we would then send
 20 them to the laboratory, they would then check with their
 21 records that the signed product is what's being
 22 installed onto the wall. That's what I believe they're
 23 talking about there. They would -- they were constantly
 24 checking, cross-referencing with drawings, the mounting
 25 of the insulation onto the facade.

83

1 Q. I see.
 2 Is what you mean that they're somehow trying to draw
 3 a distinction here between testing and certification by
 4 saying, in that second sentence, "BRE staff undertook no
 5 supervision of this process"?
 6 A. I believe that's what they're angling towards there,
 7 yes.
 8 Q. I see.
 9 But as far as you were concerned, did the BRE carry
 10 out careful checks of what was installed for this
 11 particular test?
 12 A. As far as I was aware, they were constantly monitoring
 13 what we were putting up on the wall.
 14 Q. Yes.
 15 If we go to page 33 of your witness statement now
 16 {KIN00022312/33}, and I want to look at paragraph (m) in
 17 the middle of that page. Here you're being asked about
 18 the BBA certificates, which we're going to come back to,
 19 for K15, but I want to ask you about something you say
 20 at lines 2 to 4 there about 8414 testing. You say this:
 21 "Therefore the PRODUCT when tested as part of
 22 a SYSTEM meets BR 135. You cannot strictly say K15 on
 23 its own meets BR 135 you have to talk system."
 24 Do you see that there?
 25 A. Yes.

84

1 Q. Now, you were aware at the time of the May 2005 test, is
 2 that right, that BS 8414 is a system test? Do you
 3 agree?
 4 A. We came to understand this, yes.
 5 Q. Did you understand that prior to this 2005 test?
 6 A. I believe so, yes.
 7 Q. Yes.
 8 It's right, isn't it, that no one component of the
 9 system can be picked out as suitable for use over
 10 18 metres following a test to BS 8414, can it?
 11 A. No, it's got to be tested as part of a system.
 12 Q. Yes. On the contrary, following the test in 2005, in
 13 order to build an external wall system incorporating K15
 14 which would be compliant, the exact system tested would
 15 have to be replicated, wouldn't it?
 16 A. Without any EXAP rules, yes, that's correct.
 17 Q. Yes. And just to be clear, there never were any EXAP
 18 rules, were there?
 19 A. No.
 20 Q. I now want to ask you about a spreadsheet that's been
 21 produced for the Inquiry by Kingspan. It was provided
 22 in response to questions from the Inquiry as to exactly
 23 what K15 product was tested during each test to 8414.
 24 It's dated 31 January 2020, and if we go to it, it's at
 25 {KIN00022357}.

85

1 What I'm going to do is ask you whether you can help
 2 us fill in some of the blanks or unknowns in this
 3 schedule. I take it you have not seen this schedule
 4 before?
 5 A. I don't think so, no.
 6 Q. No.
 7 So we can see that what the columns along the top do
 8 is they tell us the test date, the sponsor, the system
 9 tested, the result, et cetera, any report number. Then
 10 in the sixth column they tell us the properties of the
 11 tested insulation product. Do you see that there? It's
 12 the wider column in the middle of that page, "Properties
 13 of the tested insulation product".
 14 Then in the next column they tell us:
 15 "Was the tested insulation product the same as K15
 16 being offered for sale by Kingspan Insulation ... at the
 17 time?"
 18 And they say whether it was known or not known.
 19 Would you agree that that's quite an important
 20 question, whether what was tested was actually offered
 21 for sale by Kingspan at the time?
 22 A. Yes.
 23 Q. If we look at the first two tests that we've discussed
 24 already today, they're recorded on this spreadsheet, and
 25 we'll come back to this spreadsheet a number of times.

86

1 We can see that the first test listed is the naked
 2 insulation only test from December 2004. Do you see
 3 that?
 4 A. Yes.
 5 Q. We can see it says "Insulation only" in the third
 6 column, and there doesn't appear to have been a test
 7 report identified, it says, for this.
 8 A. This was purely an indicative test method.
 9 Q. Yes, that was my question. That was because it was
 10 purely an indication of how K15 behaved; is that right?
 11 A. Yes.
 12 Q. Yes.
 13 Going over to the next column, the properties of the
 14 insulation tested in that test, in December 2004, the
 15 naked test, are unknown. Can you help us any more about
 16 what --
 17 A. I believe it was a 60-millimetre Kooltherm K15.
 18 Q. So the same as what was tested, then, in May 2005?
 19 A. It's my understanding, yes.
 20 Q. Yes.
 21 Then if we look at the 2005 test, in the row below
 22 that, the 31 May 2005 test, we can see there that the
 23 insulation tested was 60 millimetres, properties of the
 24 insulation product tested, and I believe you just told
 25 us that that was old technology K15; that's right, isn't

87

1 it?
 2 A. I think it was, and from looking at the photos that you
 3 just showed me, I believe it was the unperforated
 4 version, yes, so old technology.
 5 Q. Yes.
 6 So in that column there, could we put in that it was
 7 a 25-micron unperforated foil that was tested at that
 8 time?
 9 A. I think that would be the case, yes.
 10 Q. Yes.
 11 As old technology, that would have been manufactured
 12 using a pentane blowing agent; is that correct?
 13 A. I can't quite remember the blowing agents used,
 14 actually.
 15 Q. Then staying with that 31 May 2005 column, when asked
 16 was the tested insulation product the same as being
 17 offered for sale by Kingspan Insulation at the time, it
 18 says "Unknown".
 19 Can you help us as to what your understanding was?
 20 Was your understanding -- I think you have already
 21 confirmed this to us, but just to be clear -- that the
 22 K15 you used on that May 2005 test was what was being
 23 sold to market?
 24 A. It was as far as I understood, yes.
 25 Q. So you would have been content at that time -- is this

88

1 right? -- to tell customers in your marketing material
2 that the K15 used in the 2005 test was the same as that
3 which was being offered for sale in 2005?

4 A. Yes.

5 Q. So I now want to ask you about BR 135 classification for
6 the 2005 test.

7 Now, we know that it wasn't received until
8 28 September 2015, over ten years after that test was
9 undertaken, but in terms of your evidence, what I want
10 to focus on is what happened in the months after the
11 May 2005 test about this.

12 If we can go to paragraph 31 of your witness
13 statement, towards the top of page 15 {KIN00022312/15},
14 you're asked the question there at 31:

15 "Between 2005 and 2014, were any customers or
16 prospective customers made aware that no BR 135
17 Classification Report existed for a cladding system
18 incorporating K15?"

19 Your answer is:

20 "Kingspan had testing that met the requirements of
21 BR 135. A classification report was additional expense
22 which really said no more than the test unless you could
23 add EXAP rules and give it some scope of compliance.
24 This is what we tried to do with offsite and the
25 original part 1 test without success."

89

1 Now, can I just check, does it remain your view that
2 a BR 135 classification report was an additional expense
3 which said no more than the test report?

4 A. This was additional monies to pay for a test -- to pay
5 for somebody to interpret the results, which
6 I personally found easy to interpret. I did not know
7 that a classification report was required. I understood
8 that you just needed to cross-reference your results
9 with the BR 135 document.

10 But it became apparent that -- at a later date that
11 it was prudent to get a BR 135 certificate to actually
12 validate your test results. But at the time, we just
13 didn't think it was needed.

14 Q. When you said there, "I didn't know that
15 a classification report was required", when are you
16 talking about then? When did you not understand that
17 that was required, and when did that change?

18 (Pause)

19 A. I say "required" because the marketplace asked for it.
20 That's why I say it was required. When we did the
21 testing in 2005, perhaps to 2008, we didn't feel that it
22 was a necessary thing to spend money on. We would want
23 to get a classification report when -- based on a number
24 of tests, that was my end goal. So a classification
25 report which would say, "Kingspan K15 is suitable for

90

1 use behind non-combustible cladding with this size
2 cladding panel, this size ventilated zone", et cetera,
3 et cetera. That was our end goal. But we obviously
4 didn't -- sorry, Kingspan didn't achieve that.

5 Q. Okay.

6 Let's just look at some emails now on this topic.
7 If we can look at {KIN00005156}. This is an email from
8 you to Sarah Colwell of the BRE on 24 March 2006. So we
9 know that you have had the December 2005 test report for
10 the May 2005 test, and this is now in March 2006, and
11 you write in the first line:

12 "Sarah,

13 "I hope all is well.. Further to our meeting last
14 month have you progressed with the K15 assessment to
15 BRE 135.. We could do with this ASAP. Please let me
16 know predicted time frame and costing?"

17 Do you see that there?

18 A. Yes.

19 Q. Would you agree that, at this time, Kingspan was very
20 keen to obtain a BR 135 classification for the 2005
21 test?

22 A. What I'm asking for here is an assessment of K15, not
23 just that particular test, but I'm looking for a BR 135
24 classification for a number of systems. I want them to
25 give us as much as they can, based on the evidence that

91

1 we've got to date, and potentially suggest what further
2 testing we need to do to actually gain a meaningful
3 certificate.

4 I am unsure as to whether you'll find any responses
5 in my email from the BRE with regards to this. They
6 seemed to not be able to respond to us.

7 Q. We'll come on to what we found in the email chains.

8 So are you saying that, at the time, you understood
9 BR 135 as something that could be used to classify in
10 a broad sense for a range of applications? Is that what
11 you're saying?

12 (Pause)

13 A. That's what we were looking for.

14 Q. Yes.

15 A. As to whether that was possible with BR 135 is
16 questionable.

17 Q. Yes.

18 That email there is referring to a meeting "last
19 month". It says:

20 "Further to our meeting last month have you
21 progressed ..."

22 Can you help us as to whether that meeting was about
23 BR 135 classification and, if so, what was discussed?

24 A. I would have been asking for scope of application on the
25 K15 test results and what we could do with that test

92

1 evidence, what we -- how we could apply it to the
 2 marketplace, what it actually meant in reality .
 3 Q. Yes.
 4 A. Because this was them that guided us down the route of
 5 testing with a non-combustible cladding board to
 6 represent non-combustible cladding systems, so,
 7 you know, we wanted -- I wanted to -- I wanted them to
 8 do what they said they were going to do, basically .
 9 Q. Yes. Again, you have talked about, "It was they that
 10 led us down this route of testing a non-combustible
 11 cladding board". Is that the conversations you were
 12 talking about earlier either with Sarah Colwell or with
 13 David Hoare?
 14 A. Yes, that's correct.
 15 Q. Yes.
 16 What was Sarah Colwell's response to this email, do
 17 you know?
 18 A. I don't know if she ever responded.
 19 Q. Right.
 20 What was your understanding at this time as to why
 21 the BR 135 classification was not forthcoming from the
 22 BRE?
 23 A. This is not -- we never requested a BR 135
 24 classification for the 2005 test. We were requesting
 25 assessments of the 2005 test to apply against BR 135.

93

1 Q. I see, so you were requesting extrapolations?
 2 A. Yeah.
 3 Q. That's your understanding, is it?
 4 A. Yes.
 5 Q. I see.
 6 Let's have another look at some other emails. Let's
 7 go to {KIN00003688}, which are some exchanges you had
 8 with Kingspan Offsite .
 9 Now, Kingspan Offsite are a subsidiary company of
 10 Kingspan; is that correct?
 11 A. That's correct, yes.
 12 Q. It's an email you write, at the top of the page, to
 13 Alan Scupham of Kingspan Offsite, copying in
 14 Simon Waller of Kingspan Offsite as well.
 15 You start this email by saying:
 16 "With regards our recent telecon about the
 17 performance of our Kooltherm K15 in ventilated cladding
 18 systems please find enclosed the two versions of
 19 BRE 135."
 20 I think what you're enclosing there is the
 21 publications, BR 135; is that correct?
 22 A. That's correct.
 23 Q. Yes. Then you say this in the second sentence:
 24 "As the test BS 8414 has no official pass or fail
 25 criteria these documents must be referred to in order to

94

1 make sense of the test report that is included within
 2 the following mail."
 3 Do you see that there?
 4 A. Yes.
 5 Q. So is it right, then, that you were clear at this point
 6 that BR 135 classification was required after the
 7 8414 testing?
 8 A. What I'm saying here is that the BR 135 must be referred
 9 to. I'm not -- I didn't believe you had to pay the BRE
 10 extra money for them to say that it's classified in
 11 accordance with this standard.
 12 Q. I see. So what you're saying is you thought anybody
 13 could take the 8414 test and work out for themselves
 14 whether the BR 135 criteria pass/fail were met; is that
 15 right?
 16 A. This sort of information, we were targeting it at
 17 fire engineers, people that -- the people that would
 18 read this test, we were expecting them to have the
 19 knowledge to be able to extrapolate that information
 20 that they were looking at.
 21 Q. I see, yes.
 22 Now, you go on in this email to set out in some
 23 detail the history of the relevant regulatory regime in
 24 this area. So in the second paragraph you're talking
 25 about the BRE publishing a paper in 1960, and then you

95

1 talk about 1983, BRE published guidance document. So
 2 you're setting out your understanding of the history of
 3 the relevant regulatory regime.
 4 You talk then about:
 5 "On the 11th June 1999 a fire at a fifth floor flat
 6 which spread up the outside of the 14 storey block in
 7 Irvine ..."
 8 So that's the Garnock Court fire; is that correct?
 9 A. That's correct.
 10 Q. And you're explaining what happened thereafter.
 11 A. I think I got this text out of Sarah Colwell's
 12 presentation that she sent to me.
 13 Q. I see, so this is information you have learned from the
 14 BRE?
 15 A. Yes.
 16 Q. If we look in the sixth paragraph down, if we keep going
 17 down this email, we can see at the end of the fifth
 18 line -- so it's in the large paragraph there beginning
 19 "Approved Document B... stipulates ", so let's read this
 20 together. You say:
 21 "Approved Document B... stipulates that in
 22 buildings with stories (sic) over 18 metres (which is
 23 traditionally the height of a fireman's ladder) the
 24 cladding and the insulation must conform to stricter
 25 requirements than for low level buildings. ADB requests

96

1 that the material ... is either limited combustibility
 2 or assessed in accordance with BRE 135 ..."
 3 Then in the next sentence you say this:
 4 "Kooltherm K15 has been successfully tested by the
 5 BRE (Building Research Establishment) to BS 8414: Part 1
 6 and assessed in accordance with BRE 135."
 7 Now, what I wanted to put to you is that that's
 8 actually not correct, is it, because it hasn't actually
 9 been assessed --
 10 A. No, I think --
 11 Q. -- in accordance with BR 135, has it?
 12 A. I think that was just bad terminology. What I meant was
 13 it can be assessed in accordance with BR 135 because it
 14 met the requirements.
 15 Q. I see.
 16 In the next sentence you say:
 17 "Where Kooltherm K15 is utilized above 18 metres, to
 18 fall within the requirements of Approved Document B
 19 horizontal ventilated cavity barriers must be introduced
 20 at every floor level above the 18 metre point ..."
 21 Do you see that there?
 22 A. Yes.
 23 Q. Can you help us as to why in this email to
 24 Kingspan Offsite you're not clarifying that K15 can only
 25 be used in one specific construction over 18 metres, ie

97

1 the one that had actually been tested in May 2005?
 2 A. Sorry, could you say that question again?
 3 Q. Yes. Why didn't you clarify in that part that
 4 Kingspan K15 can only be used in the specific
 5 construction that had been tested in May 2005?
 6 A. This was effectively an extension of an ongoing
 7 discussion that we'd had with Kingspan Offsite. They
 8 were preparing their own test data, or they were
 9 preparing to put their own tests forward of the systems.
 10 I think they were putting four systems in the
 11 marketplace. So they were looking to do that testing.
 12 Q. I see.
 13 Would you agree that that sentence, reading it now,
 14 gives the clear impression that there is no further
 15 requirement to using K15 over 18 metres other than
 16 properly spaced cavity barriers?
 17 A. I could -- it could be interpreted like that, yes,
 18 I agree.
 19 Q. You agree, yes.
 20 You then move to a section of the email which you
 21 have headed "For Internal ears only!" Do you see that
 22 there?
 23 A. Yes.
 24 Q. You say:
 25 "The BS 8414 flyer is currently being reviewed and

98

1 we will be removing the references to the fact that a
 2 Class 'O' material can be used below 18 metres (on
 3 request of our ASMs) also the assessment that it
 4 mentions is not officially available as I'm currently
 5 'discussing' the content with our friends at BRE FRS."
 6 I think that's BRE Fire Research Station; is that
 7 right?
 8 A. That's correct.
 9 Q. By "assessment" there, if we go back and look at what
 10 you say at the bottom of the page before, you say "also
 11 the assessment that it mentions" there. Were you
 12 referring to the BR 135 assessment for the 2005 test?
 13 A. Yeah, this was what I hoped to get off the BRE.
 14 Q. And were you discussing that with the BRE at the time?
 15 A. Yes, in the emails that we've just seen, I believe.
 16 Q. Did the BRE have reservations about providing a BR 135
 17 classification report for the 2005 test, as you
 18 understood it?
 19 A. I don't believe they had any -- I don't believe --
 20 I never requested one, so what I was asking for was
 21 expanded scope of application. I didn't want
 22 a classification report solely on what we tested, on
 23 what Kingspan tested; I wanted a classification report
 24 that meant something realistic to the marketplace.
 25 Q. Right. But you didn't get either, did you?

99

1 A. No.
 2 Q. If we go back to the second page of this email
 3 {KIN00003688/2} and look at the second paragraph, you
 4 say this:
 5 "The above mentioned assessment will be a more
 6 favourable document (that is easier to interpret) and
 7 will not include the bad pictures that are featured
 8 within the test report - although the construction
 9 achieved what can be diagnosed as a pass when cross
 10 referencing the documents it does look very destroyed..
 11 however the test is looking at mainly fire spread."
 12 Then you say:
 13 "It is because of this reason we haven't yet done
 14 a metlcon metal frame type scenario (BS 8414-2) ..."
 15 Do you see that there?
 16 A. Yes.
 17 Q. Would you accept, looking at this now, that you were
 18 well aware of the importance of the classification
 19 report at this time?
 20 A. I was aware of the importance of a classification report
 21 that gave us scope of application. Like I say, that was
 22 my, in hindsight, bad management that I never requested
 23 a classification report for the initial test, but
 24 I didn't believe it was required initially.
 25 Q. Let's look at an email now from April 2008. This is

100

1 {KIN00002584}. This is an email you wrote two years
 2 later. It's to Tracy Durman at a company called
 3 rainscreencladding.co.uk, and then Lee at
 4 rainscreencladding.co.uk.
 5 Are they part of something called LSC Limited, is
 6 that right? Can you recall?
 7 A. I can't recall directly, to be honest.
 8 Q. This email is about the fire barriers used in the 2005
 9 test. That seems to be the main subject.
 10 Can we read the first paragraph together. You say:
 11 "Sorry for the delay with this. Please find
 12 attached test data and picture showing installation of
 13 the Promat RSB being used in conjunction with Kooltherm
 14 K15 high performance phenolic rainscreen insulation. In
 15 order to adhere to our installation specification for
 16 the Rain Screen Barrier the product is fixed to a metal
 17 angle back to the substrata (calcium silicate or
 18 masonry) and the Phenolic should be closely butted to
 19 maintain insulation continuity. To meet the
 20 requirements of BR 135 fire barriers should be adopted
 21 at every intermediate floor level. To support this we
 22 have attached the BRE Report on the Kooltherm K15 and
 23 RSB system along with Kingspan's internal memos."
 24 Then you say this in the second paragraph:
 25 "In buildings which have stories (sic) over 18 metres

101

1 (which is traditionally the height of a fireman's
 2 ladder) the cladding and the insulation must conform to
 3 the stricter requirements laid out in Approved Document
 4 part B. The document requests that the material within
 5 the cavity is non-combustible or assessed in accordance
 6 with BRE 135 ... to show that the fire spread up the
 7 façade is limited. Kooltherm K15 has been tested by the
 8 BRE (Building Research Establishment) to BS 8414-1 and
 9 an assessment in accordance with BRE 135 will shortly be
 10 published."
 11 Do you see that there?
 12 My question, Mr Meredith, is: was that true? So
 13 we're almost three years after the test. Why did you
 14 write in 2008 that an assessment in accordance with
 15 BRE 135 will shortly be published?
 16 A. Because this is what we hoped to -- this is what
 17 Kingspan hoped to achieve.
 18 Q. So is what you're saying that Kingspan, what, were still
 19 in talks with the BRE about this at the time? Is that
 20 what you're saying?
 21 A. This was something we were looking to get out of the
 22 BRE, yes.
 23 Q. Were talks in fact going on with the BRE at that time?
 24 A. I think we pretty much hit a brick wall with the BRE.
 25 They weren't moving forward. I think we requested this

102

1 be looked at on a number of occasions and it just never
 2 came to fruition.
 3 Q. So is it right that you were still expecting to receive
 4 a BR 135 classification report for the 2005 test?
 5 A. We were looking for an assessment which would include
 6 the information gleaned in the 2005 test, yes.
 7 Q. Yes, right.
 8 In the next sentence -- so it's right in the middle
 9 of that second paragraph, it begins "To fall", six lines
 10 down -- you say this:
 11 "To fall within the requirements of Approved
 12 Document B Kooltherm K15 can continue above 18 metres,
 13 however horizontal ventilated cavity barriers must be
 14 introduced at every floor level."
 15 Do you see that there?
 16 A. Mm-hm.
 17 Q. Then you go on:
 18 "A material that doesn't achieve a Class 'O' would
 19 most likely not be able to pass the BS 8414 test ..."
 20 Again, can you help us as to why you're saying there
 21 that K15 can be used over 18 metres, and that the only
 22 limitation is for cavity barriers to be installed at
 23 every floor level?
 24 (Pause)
 25 A. Tracy and Lee, are they part of Promat or are they

103

1 a competitor fire barrier manufacturer?
 2 Q. I'm afraid I can't help you with that at the moment.
 3 I will see if anyone behind me can.
 4 Do you agree, taking that sentence and looking at it
 5 now, that you appear to be saying that K15 can be used
 6 over 18 metres, and that the only limitation is that
 7 horizontal ventilated cavity barriers are installed at
 8 every floor level?
 9 A. This is in respect of fire barrier usage, yes.
 10 Q. I see. So are you saying that that therefore affected
 11 how you gave the advice in this email, because you were
 12 referring principally to fire barriers?
 13 A. I understood this is what we were talking about here,
 14 was fire barriers, and not about the other elements of
 15 the cladding system.
 16 Q. I see.
 17 My other question for you is: why not make clear
 18 that it can only be used over 18 metres if the whole
 19 system construction is exactly the same as that that was
 20 tested in 2005?
 21 A. Because we hoped to get a larger scope of application.
 22 We had tests under way with Offsite that were looking at
 23 different cladding systems. We were hoping that this
 24 information could be thrown together and we could have
 25 something useful to go to the marketplace.

104

1 Q. Let's now look at an email exchange with a company
2 called Richardson Roofing in 2008, {KIN0003696/2}, the
3 first email from Gareth Mills on 29 February 2008 at
4 10.35.
5 A. Oh, right.
6 Q. Yes.
7 So the background to this is he's sending
8 Rob Henry-Duncan from Richardson Roofing supporting
9 documentation for K15. This is Gareth Mills to
10 Rob Henry-Duncan, the subject is "Kooltherm K15 use on
11 projects above 18m in height", and he says:
12 "Please find attached a letter I have produced
13 summarising the details regards the use of the Kooltherm
14 K15 on [high-rise] building and details of the
15 third party accreditation for the product."
16 Then if we go to the next email in the chain from
17 Rob Henry-Duncan, he says on 6 March at 11.11, back to
18 Gareth Mills:
19 "Gareth
20 "Thanks for your email. Can you please forward
21 details of the BRE test 135."
22 So he's asking for that there.
23 Then Gareth Mills writes to you on page 2 on
24 10 March 2008 at 12.52, and he says to you:
25 "This client has requested details of the BRE 135

105

1 info, following receipt of the attached letter. Do you
2 have any issues with me e-mailing the BS 8414 report as
3 I don't have a fax number for this practise (sic).
4 "Gareth."
5 Then if we go to the email above, which is your
6 response, so right at the bottom of that page
7 {KIN0003696/1}, 11 March, at 9.15, we can see you write
8 back to him, copying in Andrew Pack, and you say:
9 "Please Do Not Email the report if you can help."
10 Then you say:
11 "Instead ring up directory enquiries or speak to
12 roofing sales ..."
13 Then if we can go over the page {KIN0003696/2}:
14 "... ring the chap up and tell him you had to fax
15 it ..."
16 So you are talking about how to fax it:
17 "... and the only way to send it is to fax the
18 photocopy. As nobody asks for it we have yet to
19 individually scan and collate all 30 pages of the test
20 report - we could do that but it may take a week)."
21 Then you say this:
22 "If this report gets into the wrong hands we could
23 loose(sic) a lot of work and also make these sort of
24 jobs a lot more difficult for us to justify PFs use.
25 - That means a lot more and longer letters!) Richardson

106

1 Roofing cannot always be trusted .. do they do many
2 facades??"
3 So can you help us, Mr Meredith, why didn't you want
4 to email the report at this time in response to the
5 request that had been received, ie the 8414 report?
6 A. We were aware that there was a commercial advantage to
7 having test data of this type, and we were aware of
8 competitors trying to get hold of copies of reports.
9 What we didn't want to do was put a report into the
10 marketplace without the full story. It was important
11 that we understood what their cladding system was, and
12 that we needed to talk to them to show them that,
13 you know, "This information only represents this part of
14 the story, you need to go out and speak to other
15 cladding manufacturers to get more information on this.
16 This isn't your solution for use at high-rise, you've
17 got to, you know, tick a number of boxes".
18 Q. Why would the test in 2005 make it difficult to justify
19 the use of phenolic foam?
20 A. I had concerns of the pictures in the back of the
21 report. Although it met the BR 135 criteria, it showed
22 a lot of damage and, to the uneducated eye, this could
23 seem negative.
24 Q. Was your concern in fact that you were concerned that
25 someone would be able to read the report and decipher

107

1 that the test data applied only to the specific system
2 tested? Was that a concern you had?
3 (Pause)
4 A. I think, thinking back, that could have been -- there
5 could have been an element of that, definitely.
6 Q. And was there also in your mind a concern that the
7 build-up of that test was not representative or
8 realistic, and you didn't want people to work that out?
9 A. We knew that that -- sorry, Kingspan knew that that was
10 not directly representational, and we were still
11 awaiting assistance from the BRE to present that
12 information in a more acceptable light.
13 Q. It's right, isn't it, that Kingspan had been relying on
14 that test to promote K15 into the high-rise market for
15 three years by this time?
16 A. That's correct.
17 Q. 2008.
18 A. That's correct.
19 Q. And there was no other test to BS 8414 on which Kingspan
20 could rely in the market, was there?
21 A. That's correct, yes.
22 Q. Is it the case that the BRE didn't provide a BR 135
23 classification report at the time because they
24 considered it only to be an indicative and not
25 a representative test?

108

1 A. I don't believe that to be the case, no. The only
2 reason a BRE classification report was not issued was
3 because we didn't request that directly. We were
4 requesting an assessment of the K15 results to give them
5 scope of application.

6 Q. Can we go to a document now, {BRE00020074}. This is
7 some correspondence from 2015 when the BRE had been
8 asked to issue a classification report for this 2005
9 test. I want to look at the email from Adam Heath of
10 Kingspan from 8 September 2015, at the bottom of page 1
11 and on to page 2.

12 So at the bottom there, Adam Heath writes to a lady
13 called Vida Gaubsaite at the BRE, and he says, "Dear
14 Vida", and goes over the page {BRE00020074/2}:

15 "Thanks for the prompt response. On a slightly
16 related topic, it has come up in discussions recently
17 that we never commissioned a classification report for
18 our BS 8414-1 test (attached for reference). This test
19 was originally completed in 2005. I have 3 questions
20 really :

21 "Can a classification report be issued for this
22 test?

23 "How much will it cost?

24 "What is the timescale for delivery ..."

25 Do you see that there?

109

1 Just to be clear, you wouldn't have been aware of
2 these emails because you're not a recipient of them.

3 A. Yeah.

4 Q. Then we see that this request is sent on to Tony Baker
5 of the BRE, who writes at the top of page 1
6 {BRE00020074/1} on 9 September 2015 at 16.50, and he
7 says this :

8 "Hi Vida,

9 "This is not a straight forward one; in theory we
10 could issue a classification document, however I can
11 understand why one was not issued for this test as it
12 seems like an indicative type test.

13 "BS 8414 and BR135 is a system test and
14 classification system and from what I can see from this
15 report, there is no external weather protection system
16 included (e.g. render system or rain screen cladding).
17 Whilst they have a cement board overcladding, I doubt
18 this would be considered a complete system. Data such
19 as this has been misrepresented in the market in the
20 past."

21 Then he suggests that this question should be passed
22 by Steve Howard or Debbie Smith before a response is
23 sent. Do you see that there?

24 A. Yes.

25 Q. Now, do you agree with the view that Tony Baker of the

110

1 BRE expresses here, that the build-up of the 2005 was
2 not representative of a complete overcladding system?

3 A. I agree that it wasn't representative of a complete
4 overcladding system, yes.

5 Q. Did you or, as far as you were aware, anyone else
6 receive any indication from the BRE at any stage that
7 there was a problem with the provision of
8 a classification report to BR 135 for this test, because
9 it was only an indicative test?

10 A. This was a full test. The test report supports that.
11 However, what they -- the terminology "indicative" here
12 is because it's just -- it's not representational of
13 an official build-up. This was our attempt at --
14 you know, our first stab at showing that K15 could be
15 used in non-combustible systems.

16 So, yeah, I can agree with his stance at a later
17 date, but this was not the stance of the BRE back in
18 2005. I'm pretty confident if I'd have asked directly
19 for it, BRE 135 classification to the original 2005
20 test, they would have issued one.

21 Q. I see.

22 A. I never got any feedback from them to say that they
23 wouldn't issue that or there was a problem with that,
24 because they would have issued one based on -- it would
25 only have been applicable to that specific system. What

111

1 I wanted out of them was an assessment, which was what
2 never came to fruition.

3 Q. What I want to put to you is that that was why a BR 135
4 report was not issued in 2005 or 2006: wasn't it because
5 the BRE thought it wasn't actually representative of
6 a rainscreen cladding system?

7 A. I'm afraid, no, that conversation was never had. I --
8 this is purely my fault, my oversight. I believed that
9 you could extrapolate -- any knowledgeable building
10 engineer could extrapolate the 8414 results and just
11 apply them to BR 135, and could see that the data that
12 we had was representational of meeting the requirements.

13 Q. Would you accept now that, when you're looking at the
14 pass/fail criteria in BR 135, it does require expert
15 assessment by a body like the BRE as to whether it has
16 in fact passed those criteria?

17 A. Is that in the -- is that a change in the most recent
18 version, or was that always in there?

19 Q. No, I'm going to suggest to you that that was always
20 there.

21 A. Okay.

22 Q. That there always had to be some form of assessment to
23 the pass/fail criteria in BR 135 by persons who are
24 appropriately qualified to make that assessment.

25 A. I wasn't aware of that, I'm afraid.

112

1 Q. Can we just look at {KIN00004791} again, which is that
 2 email dated 30 May that we looked at previously. I said
 3 I would come back to this.
 4 About two-thirds of the way down, there is
 5 a sentence beginning, "COSHH data", towards the bottom
 6 of that page, four main paragraphs up:
 7 "COSHH data will follow in the morning for the
 8 Kooltherm K15 and the 6mm cement board that simulates
 9 the cladding."
 10 Do you see that there?
 11 A. Yes.
 12 Q. Again, the fact you were using the word "simulate", that
 13 suggests that it was only a representation, doesn't it,
 14 and it wasn't an actual rainscreen cladding system?
 15 A. Yes, that's correct.
 16 Q. And you have described in other emails that we looked at
 17 that the cement board was there to simulate the
 18 cladding, do you remember that? We looked at that this
 19 morning.
 20 A. Yes.
 21 Q. And that was for the same reason, wasn't it?
 22 A. We were looking for a non-combustible outer layer that
 23 would simulate the performance of a non-combustible
 24 outer layer on the outside of the chimney, because that
 25 was the -- what we saw as the critical criteria, was the

113

1 fire spread between the insulation, the ventilated
 2 cavity and the back of the cladding.
 3 MS GRANGE: Yes.
 4 Mr Chairman, I think that's a good moment to break
 5 for lunch.
 6 SIR MARTIN MOORE-BICK: I think it is, yes, thank you very
 7 much.
 8 Well, we're going to have a break now, Mr Meredith,
 9 so we can all get some lunch. As I mentioned to you
 10 earlier, please don't talk to anyone about your evidence
 11 or anything to do with it while you're out of the room,
 12 and we'll come back at 2 o'clock, please.
 13 THE WITNESS: Okay.
 14 SIR MARTIN MOORE-BICK: All right? Would you like to go
 15 with the usher, please.
 16 (Pause)
 17 Good, 2 o'clock, please. Thank you.
 18 (1.00 pm)
 19 (The short adjournment)
 20 (2.00 pm)
 21 SIR MARTIN MOORE-BICK: Right, Mr Meredith, ready to carry
 22 on?
 23 THE WITNESS: Yes.
 24 SIR MARTIN MOORE-BICK: Thank you very much.
 25 Yes, Ms Grange.

114

1 MS GRANGE: Yes, Mr Meredith, thank you.
 2 We were talking about the BR 135 classification just
 3 before the break, and I just have another question on
 4 that.
 5 Is another reason why Kingspan didn't press for
 6 a BR 135 classification report from the BRE that it
 7 would have made clear that the classification only
 8 applied to the specific system tested? Was that another
 9 reason why you didn't press for that?
 10 A. I can see that that can be considered advantageous in
 11 hindsight, but really it was my oversight at the time
 12 that I'd felt a classification report wasn't required,
 13 solely because I thought the results were easily
 14 interpreted, based on the information in BR 135. So
 15 that was my mistake. I can see how it could be
 16 considered that it was advantageous to the business, but
 17 that really wasn't the --
 18 Q. Okay.
 19 A. -- reason behind it.
 20 Q. Yes.
 21 Just thinking back to the 2005 test, did
 22 Philip Heath actually attend that test? We looked at
 23 an email where you listed out those that would be
 24 present, and his name was on that list, but we wanted to
 25 check whether you remember Mr Heath actually being at

115

1 that test?
 2 A. I don't know if he actually attended.
 3 Q. Okay.
 4 A. It would be in the BRE's records. It would be in the
 5 front of the report who attended on that day.
 6 Q. Okay, we can check, thank you.
 7 So I now want to, staying on the topic of the 2005
 8 test, look at how Kingspan used the data from that test
 9 in its marketing material.
 10 Can we go to {KIN00021738}, which is an activity
 11 report number 5 of 2005 that you have written. We can
 12 see that at the top of the page. Do you see that there?
 13 A. (Witness nods).
 14 Q. Written on 31 May.
 15 Was this activity report written for your boss,
 16 Mr Heath?
 17 A. Yeah, this is my monthly report.
 18 Q. It was drafted on the day of the test. Can you help us,
 19 did you write both the passages in black and those ones
 20 in red? Was that all your writing?
 21 (Pause)
 22 Is this ringing any bells, Mr Meredith?
 23 A. It's just the way it's set out, I'm just trying to read
 24 it, if it is me that's actually written that. Because
 25 it doesn't -- the way it's written, it doesn't look like

116

1 it was something that I'd written.

2 Q. Okay.

3 A. It looks like an additional addendum to my report.

4 Q. The red bit?

5 A. Yeah.

6 Q. Okay.

7 Just staying with the first paragraph at the top in
8 black, you say there in the second sentence -- so you
9 report that there has been a full-scale 8414 test, and
10 then you say:

11 "A successful test result will remove any
12 limitations on its use in high rise buildings (above
13 18metres) therefore increasing the market opportunities
14 (by at least 40%) and giving us an edge above all other
15 cellular plastic insulants used behind rainscreen
16 cladding."

17 So is that a true reflection of the purpose for
18 which a successful test was hoped to achieve?

19 A. This successful test would box off the question as to
20 whether the material was or could be acceptable for use
21 above 18 metres. It obviously doesn't highlight that
22 there are limitations. It doesn't remove all
23 limitations. And so --

24 Q. Yes, that was my question, because you say there --

25 A. Therefore, in hindsight, that's probably badly worded by

117

1 myself.

2 Q. Okay, you accept that?

3 A. Yeah.

4 Q. Because it suggests that you can remove any limitations
5 on its use. That's not right, is it? And you were
6 aware at that time that a successful test would only
7 mean that K15 could be used in that specific build-up
8 above 18 metres; that's correct, isn't it?

9 A. The strategy was to present that information to the
10 marketplace as a stepping stone for further testing.

11 Q. Right.

12 A. You know, we accepted that it wasn't going to answer all
13 the questions. It was showing that this is K15's story.
14 If you're using other components, which they inevitably
15 will be, they need to seek that guidance from the
16 appropriate cladding manufacturers. We were hoping that
17 this would bring other manufacturers to us to do further
18 testing and then eventually expand our scope of
19 application.

20 Q. Where you say the strategy was to present that
21 information to the marketplace as a stepping stone for
22 further testing, whose strategy was that?

23 A. It was what was agreed between myself and my seniors as
24 a -- as our only opportunity moving forward.

25 Q. Yes.

118

1 A. The marketplace wanted to use high-performance

2 insulations, but we needed to demonstrate its

3 suitability for use, but we were limited to the finances
4 with regards to this, because we weren't getting support
5 from other cladding manufacturers.

6 Q. Yes.

7 A. And we weren't getting support from the BRE with regards
8 to interpreting test results.

9 Q. Yes.

10 If we look on at the red text -- and I appreciate
11 you're not entirely clear whether you would have written
12 that -- it says:

13 "Hopefully you will have a positive result to
14 present in your report - this is the only major
15 remaining application where Rock mineral has been able
16 to get us removed from specifications."

17 Just on that, was that your understanding, that this
18 was the only major remaining application where rock
19 mineral was effectively out-competing Kingspan from
20 being included in specifications?

21 A. I believe that to be correct, yes.

22 Q. Yes.

23 Then it goes on, if I can pick it up in the fifth
24 line:

25 "Work will then continue with Zurich Municipal

119

1 insurance to get full acceptance of Phenolic foam in
2 facades and move to pushing Celotex out of the
3 [rainscreen] market place (and any other PIR producers
4 that are pushing product into this area). Further
5 driving the point that when high performance thermal and
6 fire requirements are needed phenolic is the product of
7 choice."

8 So, again, would you agree that that was the
9 objective that Kingspan were seeking to achieve: push
10 Celotex out of this market?

11 A. We were looking to push the other what we considered
12 inferior products out of the marketplace, certainly.

13 Q. After the May 2005 test, a flyer was produced by
14 Kingspan entitled, "What's lurking behind your façade?"
15 to market K15 for use over 18 metres. If we can go to
16 that at {KIN00005350}, this is the "What's lurking
17 behind your façade?" publication.

18 I want to look at the first paragraph that starts in
19 the red text, so it's a bit below that on that first
20 page. If we could just read it together, it says:

21 "Kingspan Kooltherm K15 Rainscreen Board has not
22 only been tested by the Building Research Establishment
23 (BRE) and awarded certification to BS 8414-1:2002, but
24 it has also been assessed and approved in accordance
25 with BR 135."

120

1 Now, can you agree with me that that was not the
 2 case, was it? It hadn't been assessed and approved in
 3 accordance with BR 135, certainly not by the BRE.
 4 A. We had personally -- we'd assessed it in accordance with
 5 that document, but it's unfair to say it had been
 6 approved by the BRE.
 7 Q. And it implies that it had been assessed and approved by
 8 the BRE, doesn't it, the way it's written?
 9 A. Yeah, it's badly worded.
 10 Q. The BRE complained about this flyer. Do you remember
 11 that?
 12 A. I think I have a recollection of that, yes.
 13 Q. And the flyer had to be withdrawn. Let's have a look at
 14 an email about that on 8 June 2006. Can we look at
 15 {KIN00005179} and the first email there. This is
 16 an email you write to the technical services generic
 17 email address about K15 promotional literature, and you
 18 say:
 19 "Please note the K15 'What's lurking behind your
 20 facade' flyer has been withdrawn by the marketing
 21 department partly because its considered not a good
 22 sales tack tick(sic) to highlight the fact that you
 23 don't need Class 'O' below 18 metres.
 24 "Also the BRE have complained about the use of the
 25 word 'approved' and 'certification' in our text. These

121

1 are privileges that would cost us an additional 20K...
 2 "Therefore when referring to this test method please
 3 use the following text ..."
 4 Then you're proposing some different text to use,
 5 and the text you propose is then:
 6 "Kingspan Kooltherm K15 has been successfully tested
 7 to BS 8414-1 and when assessed in accordance with
 8 BRE 135 it is acceptable for use above 18metres in
 9 accordance with the English, Scottish and Irish
 10 Building Regulations."
 11 Do you see that there?
 12 A. Yes.
 13 Q. Would you agree that this text that you propose is also
 14 giving the impression that K15 has been assessed to
 15 BR 135? You say, "and when assessed in accordance with
 16 BR 135 it is acceptable for use above 18metres"; do you
 17 see that, in your wording?
 18 (Pause)
 19 A. What I'm trying to imply there is when it's
 20 cross-referenced with that other document, it's
 21 acceptable for use above 18 metres.
 22 Q. But "assessed" is ambiguous, isn't it, at best, there?
 23 It might imply to the reader that it's been through some
 24 sort of formal assessment process in accordance with
 25 BR 135, doesn't it?

122

1 A. I would choose "approved", would be less ambiguous,
 2 but -- well, if it would be approved, it would be
 3 more -- but I see what you're saying, I can understand
 4 where you're coming from, definitely.
 5 Q. Can you see now how that text might have been
 6 misleading, and might have led readers to believe there
 7 was a BR 135 classification report assessing that
 8 8414 test against the pass/fail criteria in 8414(sic)?
 9 (Pause)
 10 A. Yeah. I don't think we ever -- Kingspan ever intended
 11 to imply that there was a BR 135 report. It was just
 12 purely that the test results are meeting the
 13 requirements of. But, yes, I can see now in hindsight
 14 that they are ambiguous.
 15 Q. That does require some form of expert assessment,
 16 doesn't it, given that you've got to look at things like
 17 mechanical performance, the full test duration, has it
 18 reached the top of the rig? It isn't simply a question
 19 of reading off the thermocouple data, is it? It's more
 20 sophisticated than that.
 21 A. But it is all there in the report. But, yeah, I agree
 22 what you're saying.
 23 Q. Can you confirm that the text you suggested there was
 24 then regularly used in response to technical queries
 25 from customers?

123

1 A. I can imagine it was, yes, because I targeted this at
 2 the technical services department.
 3 Q. Yes.
 4 Going back to the complaint before this about the
 5 previous wording, do you know who it was at the BRE who
 6 had complained about the content of the previous flyer?
 7 A. I don't know if it was Tony Baker.
 8 Q. You think it could have been him?
 9 A. I think it could have been him, yeah.
 10 Q. I now want to ask you about the change in production at
 11 Pembridge from the old technology K15 to the new
 12 technology K15.
 13 If we can look at Mr Heath's witness statement, this
 14 is at {KIN00020709/13}, paragraph 3.18, and I want to
 15 look about three lines down. He's dealing with this
 16 change in technology, and he says three lines down:
 17 "... it appears that K15 using new technology was
 18 first produced in Pembridge in or around September 2006
 19 for certain product thicknesses. It appears that all
 20 thicknesses produced using old technology had been
 21 transferred to new technology by August 2007 ..."
 22 Do you see that?
 23 A. Yes.
 24 Q. Does that sound right to you in terms of your
 25 understanding of when the new technology K15 came

124

1 onstream?

2 A. Yeah, there was a transition where they agreed the

3 standard operating procedures based on each thickness.

4 Q. I now want to show you a letter very recently received

5 from the Inquiry from Adrian Pargeter at Kingspan. If

6 you go to {KIN00024104}, this is a letter of

7 23 October 2020, so very recent, this letter.

8 I take it you haven't seen this letter before today?

9 A. No.

10 Q. It's addressed to Debbie Smith at the BRE, this letter,

11 dated 23 October, and if pick it up at paragraph 1, he

12 says:

13 "We are writing ... [about] a number of BS 8414 test

14 reports and corresponding classification reports

15 featuring ... Kooltherm K15 ..."

16 Then in the second paragraph he says:

17 "As you may be aware, Kingspan is currently involved

18 as a core participant in the Grenfell Tower Public

19 Inquiry. As part of our co-operation with requests for

20 information from the Inquiry we have undertaken

21 a comprehensive review of all past and current test data

22 which relates to K15, including BS 8414 tests."

23 Then he says in the next paragraph:

24 "Through our review we have now concluded that tests

25 carried out in 2005 and 2014 featured product that was

125

1 not sufficiently representative of the product currently

2 sold into the market place. We have listed these

3 reports and a small summary of their construction

4 build ups below."

5 Then if we go down to the table on page 1, the first

6 entry on his list is the test 220876, the test that was

7 carried out in May 2005 with no classification report,

8 we see that on the left-hand side at the top of the

9 table.

10 Then if we go over to page 2 {KIN00024104/2}, under

11 this heading "Test Report 220876 ... 8th December

12 2005" -- so that was the date of the test report for the

13 May 2005 test. He says in the first paragraph that:

14 "Due to the age of this test, a lot of details and

15 information were hard to come by."

16 Then if we look at the second paragraph, he says:

17 "On a full review of raw materials and the

18 manufacturing processes, it became apparent that the K15

19 manufactured in 2005 would not be representative of the

20 product currently sold on the market from 2006 to today.

21 While both products are still phenolic foams, Kingspan

22 is now of the view that there are sufficient differences

23 to consider withdrawing this test report."

24 Do you see that there?

25 A. Yes.

126

1 Q. So Kingspan are now telling us that the product tested

2 in 2005 was so different from the product sold after

3 2006 through to today that it's withdrawing the test

4 report and it's writing to the BRE saying that.

5 Now, would you agree that, far from being something

6 that Kingspan recently concluded, it was well known from

7 September 2006 onwards that the 2005 test was undertaken

8 with old technology K15? That's right, isn't it?

9 A. I think that was common knowledge, yes.

10 Q. And you were aware, weren't you, that the fire

11 performance of the new technology product was different

12 from the product tested in 2005?

13 A. Yes.

14 Q. You flagged that issue specifically to Philip Heath and

15 Malcolm Rochefort more than once; would you agree?

16 A. Yes, that's definitely --

17 Q. I'm going to take you to some of those emails where you

18 are raising concerns about the new technology K15 in

19 a moment.

20 Can you help us, why did Kingspan continue to rely

21 on the 2005 test data after September 2006, when the new

22 technology was introduced?

23 A. It was very difficult. Although I was constantly

24 pushing back, trying to box out the formulations used,

25 and the different characteristics of the product, I was

127

1 basically being told that the materials were the same,

2 the new technology was essentially better, and in a lot

3 of properties it was, but it performed differently in

4 fire. I wouldn't say worse, it just performed

5 differently.

6 Q. You wouldn't say it performed worse?

7 A. No, I wouldn't say it performed worse, it just performed

8 differently.

9 Q. Were you given directions from your managers about this,

10 about continuing to rely on the 2005 data even though

11 the product had changed?

12 A. The process that Phil alluded to, the actual completion

13 of the SOP for the new technology, my impression was

14 that went on for a couple of years. So they obviously

15 procured the business, and then it took quite a while

16 before old technology was phased out.

17 Q. Did you feel comfortable telling customers that the K15

18 product that Kingspan were selling had been successfully

19 tested to BS 8414-1?

20 (Pause)

21 A. I think I had concerns over the new technology, which

22 I voiced. In hindsight, obviously now, definitely,

23 without -- you know, I'm very sorry for what's happened,

24 you know, so this is ... you know, we should have

25 perhaps been clearer in our marketing.

128

1 Q. Okay.
 2 Well, we'll come on to the 2007/2008 tests in
 3 a moment, but just before we do, I want to look at some
 4 other things that were going on at the time.
 5 If we go to paragraph 9 of your witness statement,
 6 at the top of page 5 {KIN00022312/5}, and this very much
 7 picks up on the theme you have been talking about
 8 already today, at A at the top of that page you say:
 9 "Kingspan tried on numerous occasions to obtain
 10 a bigger scope of application for K15 to BS 8414 parts 1
 11 & 2. After performing indicative testing of K15 to
 12 BS 8414-1 exposed to the full fire load without cladding
 13 we arranged to test behind a non-combustible building
 14 board. We did this as the BRE advised that if we tested
 15 behind a non-combustible building board they would give
 16 us scope to say that the system tested to could meet the
 17 BR 135 requirements when used behind all non-combustible
 18 cladding types. Unfortunately after testing
 19 successfully i.e. meeting the BR 135 requirements the
 20 BRE moved the goalposts and retracted this statement
 21 leaving us a little in the lurch."
 22 Now, we have been discussing this already, and you
 23 have explained to us that it was either Sarah Colwell or
 24 David Hoare that you had had these discussions with
 25 about extended application of the test.

129

1 Did you ever think to get that in writing from the
 2 BRE, given how important it was to Kingspan's strategy,
 3 that that's what the BRE were promising they could do?
 4 A. I don't think I ever got any responses to
 5 Sarah Colwell's emails. I don't know if that's correct,
 6 me saying that, or not. But ... yeah, I think I would
 7 have wanted that in writing after -- I'd be shocked if
 8 I didn't try.
 9 Q. Yes.
 10 When was it exactly, because it's not clear from
 11 your statement, when the "BRE moved the goalposts and
 12 retracted this statement leaving us a little in the
 13 lurch"? Can you help us as to when that was?
 14 A. Shortly after the 2005 full BS 8414-1 test.
 15 Q. Who was it who retracted the statement and left you in
 16 the lurch at the BRE?
 17 A. I would have thought it's Sarah Colwell, but then it
 18 could have been David Hoare or it could have been
 19 Sarah's husband, Richard Colwell, who was working around
 20 the Burn Hall at the time.
 21 Obviously I was looking for them to steer me as to
 22 what we would need to test so we could get our scope of
 23 application, and it was them that pointed us down the
 24 non-combustible route, so we went out and sourced
 25 a non-combustible board, and then after the testing we

130

1 were -- they didn't want to really know about it, and
 2 they said that -- you know, it was a verbal
 3 conversation, I believe, that they said that they didn't
 4 want to move that forward.

5 And then myself and Phil went down at a later date
 6 and had a meeting with one of the directors of the BRE,
 7 quite a big meeting with lots of heavy-hitters in there,
 8 and they started describing, you know, the number of
 9 different tests we would have to do just to get five
 10 different build-ups tested, and this was where they were
 11 talking about 300 grand's worth of testing, and then
 12 they would know how many more tests we'd have to do to
 13 get a certification.

14 I think that was when Phil took the stance that,
 15 you know, maybe we've done what we can, maybe we need to
 16 put this out to the other component suppliers.

17 Q. You go on in your statement here and describe that
 18 meeting. You say:

19 "Shortly after this, myself, Philip Heath Technical
 20 Manager and the Director of Kingspan Offsite went to the
 21 BRE (Sarah Colwell and Tony Baker and the Director of
 22 the BRE were in attendance I believe) to attempt to
 23 obtain this when Kingspan launched the offsite division
 24 that included about 5 different build ups (lining,
 25 substrate, K15 insulation, cladding). The meeting

131

1 became very heated as the BRE could not commit to
 2 a route to getting full and comprehensive certification
 3 for the systems to BS 8414 parts 1 & 2."

4 Then you say:

5 "The meeting finished with the BRE stating that even
 6 after 15 tests (at £8,000 test costs alone) they could
 7 not commit to being able to give Kingspan scope of
 8 application as they simply did not have the knowledge of
 9 these systems. This was very apparent as at a lot of
 10 the tests we conducted numerous BRE personnel would wish
 11 to witness the testing. All they could commit to was
 12 that after we conducted 250k of test work they would
 13 hopefully be able to identify some extended application
 14 rules that would allow them to write something more
 15 comprehensive about the performance of the systems."

16 So I think that's what you're describing in your
 17 statement.

18 Can you be more precise about when that meeting, the
 19 one that became heated, took place, do you know?

20 A. It was some time after the 2006 testing and before
 21 Kingspan Offsite performed their testing.

22 Q. Who was the director of Kingspan Offsite that attended
 23 with you, can you remember?

24 (Pause)

25 A. Stephen something was the technical director. I know it

132

1 was Anthony Wilkinson was the guy at my level that I was
 2 dealing with, but I can't remember the directors at that
 3 time, unfortunately.
 4 Q. How did this meeting become heated? How did that
 5 happen?
 6 A. Because the BRE didn't have answers to the questions.
 7 They couldn't give us a line in the sand where it --
 8 they couldn't tell us what we needed to do to get
 9 certification or approval. It just wasn't possible.
 10 And that was where my boss -- they were talking about,
 11 you know, two years' budget for a product just to
 12 justify its use in the marketplace, and it was something
 13 that we couldn't ... we weren't comfortable with at the
 14 time.
 15 Q. Yes.
 16 A. It was the expense, the resource, and the fact that
 17 there was no kind of line in the sand after we'd done
 18 that work. After we'd done that work, they would be
 19 able to come back to us and say where the position was
 20 then. They weren't going to say definitely, you know,
 21 you'll be acceptable for this or that.
 22 Q. Yes.
 23 A. So we were very, very disappointed that they couldn't
 24 answer any of our questions, basically.
 25 Q. Do you accept that even if at some earlier stage you

133

1 thought that the May 2005 8414 test data could be used
 2 in a representative way, at this meeting the BRE made
 3 absolutely clear to Kingspan that this was not the view
 4 they took and they were not prepared to extend the scope
 5 of that test?
 6 A. At this point, we were looking at the test we did in
 7 2005 and potentially the five system tests that Offsite
 8 were going to do, and we were looking to lump all those
 9 tests together, and then the BRE could present us their
 10 picture on that. But it was at that point that they
 11 kind of said, "Well, you know, we need you to do a hell
 12 of a lot more testing, you know, you're not going to get
 13 what you want, the only thing you can do at the moment
 14 is you test a specific system and we will give you the
 15 classification for that system".
 16 Q. Yes.
 17 A. There was no flexibility, really. So as a component
 18 manufacturer that has no allegiance to cladding system
 19 or, you know, framing system or rainscreen barrier type,
 20 we had no route to market apart from to simply present,
 21 "This is what we have, you know, you have got to go and
 22 speak to the other component manufacturers if you want
 23 full acceptability of use".
 24 Q. I think the answer to the question I posed, therefore,
 25 is: yes, you did, certainly by this stage, understand

134

1 that you couldn't be using that data in a representative
 2 way; do you agree?
 3 A. If I remember -- I don't think I walked out of that
 4 meeting thinking that that data was irrelevant, but
 5 I did walk out of that meeting, like Phil did -- we were
 6 scratching our head as to the way forward, really.
 7 Q. Did you ever think or discuss with Mr Heath that,
 8 actually, maybe K15 shouldn't be used on buildings above
 9 18 metres at all?
 10 (Pause)
 11 A. In my earlier years at Kingspan, I was criticised for
 12 being very negative. That was the first feedback I'd
 13 ever got through my line manager from my director. So
 14 I tried to sit on some of my opinions a little bit,
 15 because they weren't doing me any benefit to my career.
 16 It was my first job, so I tried to be a little bit more
 17 positive about things. So my job was simply: go out
 18 there and try and get what verification you could from
 19 the marketplace to verify that the system was suitable
 20 or a product was suitable.
 21 Q. So does it follow that you felt under pressure to find
 22 some way in which to justify the use of K15 over
 23 18 metres?
 24 A. I was continually under pressure for this. But this
 25 wasn't helped by the fact that the main certification

135

1 bodies who we'd supported in getting the test method
 2 accepted and putting it out there weren't helping us,
 3 really, to promote their test methods, you know.
 4 Q. Yes.
 5 Would you agree that none of the marketing material
 6 put out by Kingspan refers to the specific system
 7 tested, including the cement particle board?
 8 A. I requested an addendum to the literature which put the
 9 reader in contact with the technical department.
 10 Q. Yes.
 11 A. That if there was a building above 18 metres, they
 12 needed to speak to the technical department and go
 13 through the specifics with us. It was our intention to
 14 highlight to them at that point that they would --
 15 you know, we didn't have all the answers, you needed to
 16 go out and source these from the other component
 17 manufacturers.
 18 Q. Yes.
 19 Would you agree that the marketing material uses the
 20 generic wording "non-combustible cladding" in relation
 21 to that 2005 test to BS 8414, it doesn't refer
 22 specifically to cement particle board?
 23 A. Yeah, I would agree that the literature says that, and
 24 in hindsight it's an oversight, isn't it?
 25 Q. And technical queries also used the same wording, didn't

136

1 it, "non-combustible cladding"? It didn't descend into
 2 the particulars of the materials used, did it?
 3 A. No, because we considered the 6-mil cement particle
 4 board to be a worst-case non-combustible cladding.
 5 Q. Right.
 6 A. Any other non-combustible cladding would -- you don't
 7 get a 6-mil rainscreen cladding of that type, so
 8 anything else would be considerably more resilient. So
 9 it was our belief that this was a kind of a worst case.
 10 Q. But you wouldn't have known, would you, because you had
 11 only done that one 2005 test? I think as you mentioned
 12 earlier this morning, it's not until people started
 13 testing all manner of different exterior panels that
 14 people realised it can have a very significant impact on
 15 the way it performs, doesn't it?
 16 A. Yeah.
 17 Q. Let's just look at the Kingspan marketing literature.
 18 If we can go to {KIN00003545}, which is the ninth issue
 19 of the product literature for K15. Now, we can see that
 20 ninth issue in the top right-hand corner, March 2011.
 21 Are you aware that this issue was not actually
 22 updated until July 2016?
 23 (Pause)
 24 Were you aware of that, or was that not something
 25 you would know how long --

137

1 A. I kept sort of -- you know, I wasn't directly involved
 2 in the literature side of it. I may have been on the
 3 circulation for proofreading literature, but it was
 4 primarily the responsibility of the marketing manager.
 5 Q. Okay, yes.
 6 A. We were there to advise and present the new test
 7 evidence when we had it, but, like I say, I was that
 8 busy, I just -- you know, things like this just floated
 9 past in the day to day, really.
 10 Q. If we look at the third bullet point on that side, it's
 11 been highlighted in yellow there in this version, the
 12 first bullet point says:
 13 "Successfully tested to BS 8414:2002, can meet the
 14 criteria within BR 135 and is therefore acceptable for
 15 use above 18 metres."
 16 Do you see that?
 17 A. Yes.
 18 Q. And that's a claim about K15 as a product, isn't it?
 19 A. Yes.
 20 Q. Would you agree with me, looking at that now, that that
 21 statement, "is therefore acceptable for use above
 22 18 metres" is wholly misleading? It doesn't say that
 23 it's only suitable for use above 18 metres in one
 24 specific configuration, does it?
 25 A. No.

138

1 Q. I note also, under BS 8414, it doesn't tell you whether
 2 it's tested to 8414-1 or 2, does it, there?
 3 A. No.
 4 Q. If we go to --
 5 A. I think that's a --
 6 Q. Sorry.
 7 A. That would be a typo. I don't think that was
 8 deliberately done.
 9 Q. Okay.
 10 If we go to page 2 {KIN00003545/2}, under "Typical
 11 Constructions", these are typical design details --
 12 sorry, look at these typical constructions first. So
 13 you see figure 1, "Insulated Rainscreen Cladding
 14 Systems", and then if we go down, "Insulated Rainscreen
 15 Cladding Systems (terracotta clay tile external
 16 finish)". Do you see that?
 17 A. Yes.
 18 Q. So the one first is a non-proprietary external finish,
 19 the second one is a terracotta clay tile external
 20 finish, and then the third one is, "Insulated Rainscreen
 21 Cladding Systems on Steel Frame". Do you see that
 22 there?
 23 A. Yes.
 24 Q. These typical design details are not said to apply only
 25 to buildings under 18 metres in height, are they?

139

1 A. No.
 2 Q. As at March 2011, when this marketing material was
 3 issued, K15 had not been tested as part of an external
 4 façade system clad in terracotta clay tile panels, had
 5 it?
 6 A. Sorry, what date was this again?
 7 Q. March 2011.
 8 A. No, it hadn't been tested.
 9 Q. By this time, K15 had been tested on a steel frame
 10 system four times, and it's right, isn't it, that not
 11 one of those tested systems could achieve the pass
 12 criteria in BR 135? That's right, isn't it?
 13 A. This is including the tests done by Offsite, yes, that's
 14 correct.
 15 Q. Moving down to page 6 {KIN00003545/6}, under the heading
 16 "Fire Performance" in the top right-hand corner, if we
 17 can zoom in on that, it says:
 18 "Kingspan Kooltherm K15 Rainscreen Board, and its
 19 rigid thermoset insulation core, are Class 0, as defined
 20 by the Building Regulations."
 21 Then it says:
 22 "... when subjected to the British Standard
 23 fire test specified in the table below, has achieved the
 24 result shown."
 25 Then below that it says:

140

1 "Kingspan Kooltherm K15 Rainscreen Board in the
2 construction specified in the table below, when
3 subjected to the British Standard fire test BS 8414:2002
4 (Fire performance of external cladding systems. Test
5 methods for non-load bearing external cladding systems
6 applied to the face of a building), has achieved the
7 result shown."

8 Do you see that there?

9 A. Yes.

10 Q. Then that sounds as though it might qualify the specific
11 construction, but if you see below, the construction
12 just says:

13 "6 mm non-combustible cladding fixed to an aluminium
14 railing system ..."

15 Do you see that there?

16 A. Yes.

17 Q. Those were the generic terms used which I was asking you
18 about earlier, weren't they, just referring to it as
19 non-combustible cladding?

20 A. Yes.

21 Q. Then on the right there, under "Result", it says:

22 "The tested product meets the criteria stated within
23 BRE 135 (Fire performance of external thermal insulation
24 for walls of multi storey buildings) and is therefore
25 acceptable for us above 18 metres in accordance with the

141

1 Building Regulations/Standards."

2 Do you see that there?

3 A. Yes.

4 Q. Would you agree with me, looking at it now, that that's
5 misleading, isn't it? The product on its own can't meet
6 the BR 135 criteria.

7 A. It does say, "Kooltherm K15 Rainscreen Board in the
8 construction specified ... when subjected to ..." meets
9 the following.

10 I agree with your comments, but also they have tried
11 to make clear the scenario here that it's just based on
12 this specific construction.

13 Q. I see. But it doesn't really go far enough, does it?

14 It certainly doesn't say that the product can only be
15 used in that specific situation, does it?

16 A. No, definitely not.

17 Q. And that statement that K15 was suitable for use with
18 any non-combustible cladding system was made by Kingspan
19 on many occasions after 2005, wasn't it?

20 (Pause)

21 A. Yeah. We were under the -- I think that information had
22 been released to the sales department and I don't think
23 we were able to claw it back after we'd told them,
24 I think.

25 Q. Yes. On the basis of that one 2005 test, Kingspan

142

1 continued to assert for many years that its product
2 could be used on buildings over 18 metres, didn't it?

3 A. Yes.

4 Q. And would you agree that this was despite the test not
5 being representative of a rainscreen cladding system and
6 only being on a masonry substrate, and, even more
7 fundamentally, Kingspan changing its product so that
8 what was sold to market actually performed worse in
9 fire, didn't it?

10 A. To some fire tests, it performed worse, yes.

11 Q. Yes. And, as a result, K15 ended up on many hundreds of
12 high-rise buildings, didn't it?

13 A. I believe so, yes.

14 Q. When it shouldn't have been anywhere near those
15 buildings, should it?

16 A. It should have been dependent on construction.

17 Q. It should have only been on buildings with that one
18 specific system specified, shouldn't it?

19 (Pause)

20 A. I think I'd have to look back at some of the letters we
21 wrote as part of this to support that, but I thought we
22 were kind of clear in saying that this wasn't the final
23 hurdle that you have to pass, this is just showing that
24 the K15 can meet --

25 Q. I see, okay.

143

1 A. I mean, there's intention and there's how it was implied
2 in the marketing literature, which was maybe a little
3 bit more misleading.

4 Q. Okay, yes. I will take you to some of those letters.

5 A. Yeah.

6 Q. So now looking at the testing, I want to move on and
7 just look at the testing you did in 2007 and 2008.

8 Now, you say in an email in 2008, which we'll go to
9 shortly, that 80% of the market was out of bounds to
10 Kingspan and K15 unless you could pass a BS 8414-2 test,
11 given the preference for steel frame build-ups; do you
12 agree?

13 A. Yes, that's the case.

14 Q. So would you agree it was critical that Kingspan and K15
15 obtained favourable fire tests on steel frame systems in
16 order to retain Kingspan's share of the high-rise
17 market?

18 A. That was one of the goals, yes.

19 Q. At this stage, and after the successful 2005 test, do
20 you recall what share of the over-18-metre market
21 Kingspan occupied approximately?

22 A. I would have only put that sort of information in my
23 reports, so I would have got it off a sales manager or
24 the sales director or something. I'm not really au fait
25 with sales, to be honest.

144

1 Q. Yes.
2 Let's look now at the 8414-2 test that you undertook
3 in partnership with Metsec, steel frame manufacturers,
4 and Sotech, who made aluminium cassette rainscreen
5 cladding, on 20 December 2007.

6 If we can look at the executive summary you prepared
7 after the test at {KIN00008847}. This is dated
8 7 January 2008. This is, you can see in the middle,
9 a strictly confidential executive summary version paper
10 that you produced. There's your signature and name at
11 the bottom. Do you see that?

12 A. Yes, I do.

13 Q. If we can go to the second page {KIN00008847/2} and the
14 third paragraph, under the heading "Project
15 Stakeholders", you say that it's a jointly run project
16 with Sotech and Metsec and Kingspan, costs split three
17 ways, and then in the next paragraph down you say:

18 "This information is essential to Kingspan for all
19 façade sales above 18mm ..."

20 I think you mean 18 metres not 18 millimetres; yes?

21 A. Yeah, that's correct.

22 Q. "... throughout the UK and Ireland. Not having evidence
23 that our product performs onto a steel frame is causing
24 job losses specifically in Scotland on a daily basis
25 (however we are fighting the case for each project with

145

1 the BS 8414-1 (onto masonry) test data performed in
2 2005."

3 So do you agree that at this stage test data from
4 8414-2 was desperately needed in order that you could
5 say that K15 could be used on steel frame structures?

6 A. At that point, the market was suggesting that we needed
7 a part 2 test. Well, that's what I felt strongly about
8 anyway.

9 Q. Yes.

10 You say in your witness statement to the Inquiry
11 that you were present at this test on 20 December 2007;
12 do you remember that?

13 A. Yes, I do.

14 Q. If we look under "Test Date" on the same page, it says
15 there:

16 "Originally the 14th of December then it moved to
17 the 17th and then at the last minute they switched to
18 the 20th December. I was on Holiday from the 15th and
19 Mark Swift was to attend on the 17th however he did not
20 make the 20th but we will soon have the DVD of the test
21 and we performed a full dissection (sic) on Tuesday so are
22 happy that we know exactly what happened."

23 Do you see that there?

24 A. Oh, right, okay.

25 Q. So this seems to suggest that you were on holiday as the

146

1 date changed, and then the test witnesses are listed.
2 If we go below this, we see there there's a heading
3 "Test Witnesses". It's John Egginton, Sotech;
4 James Gallear, Metsec; Tony Baker; Sarah Colwell;
5 Phil Clark, BRE.

6 A. Yeah, I actually witnessed the previous test which was
7 a failure on a non-combustible insulant.

8 Q. Yes.

9 A. That was where I'm getting confused, sorry.

10 Q. Yes.

11 Then if we go to page 6 {KIN00008847/6} of your
12 executive summary, the same document, and look at the
13 heading "The tested system" at the top of that page,
14 there in the first paragraph you say:

15 "Following much discussion we agreed on a system
16 that we and the BRE believed had the best chance of
17 passing."

18 Do you see that there?

19 A. Yes.

20 Q. When you say "we agreed on a system that we and the BRE
21 believed had the best chance of passing", who within
22 Kingspan was involved in those discussions?

23 A. This is -- the "we" would be myself, John Egginton from
24 Sotech, the chap from Metsec who escapes me, and maybe
25 Phil Clark or David Hoare, and it was to do with the

147

1 position of the fire barriers, really.

2 Q. Yes.

3 A. That was the ... obviously I think they were still
4 learning with this test, and there was an optimum
5 position for fire barriers to give it -- to be
6 representative of what's used floor to floor and to
7 actually meet the requirements.

8 Q. Right.

9 A. I think you could deviate the height of the
10 fire barrier, and I think -- I don't know, it might
11 suggest that there would be a better chance of passing
12 if the fire barriers were slightly higher.

13 Q. Slightly higher than the floor level, or slightly higher
14 than what?

15 A. Slightly higher than the aperture.

16 Q. I see.

17 A. So the window aperture. But this is -- you know, we're
18 spending big money on this and we're pushing everyone in
19 the laboratory to give us their feedback on, you know,
20 what they think works and what doesn't.

21 Q. Yes. So I think what you have just said there is that
22 members of the BRE were trying to help you design this
23 test so it had the best chance of passing; would you
24 agree?

25 A. Yeah. They were being helpful, I think.

148

1 Q. What involvement did Philip Heath and Malcolm Rochefort
2 have in this test?
3 A. Because this system was very much a Sotech system, as
4 such, the insulation incorporated in it, we were
5 restricted to installing it in the pattern that we
6 normally install our insulation, with the fixings that
7 we normally install, with the tape that we normally use.
8 So the design of the system was very much a Sotech --
9 because it was basically we were testing their
10 cladding --
11 Q. Yes.
12 A. -- with the Kingspan product within it.
13 Q. Who selected the K15 insulation that was sent to the BRE
14 for the test? Did you do that?
15 A. I think I just requested product from our production
16 department.
17 Q. Yes.
18 A. So it would have been Gwyn or Doug or something like
19 that.
20 Q. By this time, that would have been new technology or
21 Kesteren technology K15, wouldn't it?
22 A. I should imagine so, yes.
23 Q. And this was the first large-scale fire test on new
24 technology K15, wasn't it?
25 A. I think it was, yes.

149

1 Q. The foil facer that was used, that would be a perforated
2 foil, wouldn't it?
3 A. It would be a perforated foil, yes.
4 Q. If we just look at the spreadsheet that we looked at
5 earlier, {KIN00022357}, and we look at "Major changes",
6 we want to look in the sixth column on page 1 relating
7 to the 2007 test. So if we go down this page, and
8 again, and again ... Actually, I think I might have
9 a wrong reference there. I'll come back to that.
10 Let's go back to your report again, {KIN00008847/2},
11 at the bottom of page 2 now, under the heading "Result",
12 we can see there you say this:
13 "By 17minutes the top fire barrier had breached and
14 the raging inferno moved up to the top thermocouples and
15 pushed them past 600 degrees thus failing the simple
16 criteria of BR 135."
17 Do you see that there?
18 A. Yes.
19 Q. Then if we go over the page to the top of the next page,
20 page 3 {KIN00008847/3}, you say:
21 "The Phenolic was burning on its own steam and the
22 BRE had to extinguish the test early because it was
23 endangering setting fire to the laboratory."
24 Do you see that there?
25 A. Yes.

150

1 Q. Then in the third paragraph you say this, under the
2 heading, "Why did it fail":
3 "The new technology Phenolic is very different in a
4 fire situation to the previous technology which has
5 passed several similar tests. The old technology would
6 turn into a light ash and fall away leaving to substance
7 to feed the fire."
8 A. I think it's supposed to be "leaving no substance to
9 feed the fire" if it falls away, sorry.
10 Q. Yes, thank you:
11 "Please refer to Archive test pictures 47 and 48
12 which clearly shows this."
13 We will come back to those. Then you say this:
14 "The Phenolic burnt very ferociously and gave the
15 top cavity barrier a serious hammering. It did however
16 hold out and there was a slim chance that it may have
17 held out long enough for the crib to start burning down
18 and then this test would have been successful."
19 Do you see that there?
20 A. Yes.
21 Q. Now, would you agree that it became clear to you very
22 quickly that this new K15 could not repeat the fire
23 performance of old technology K15?
24 A. There's two things at play here. There's the -- my
25 first experience of an aluminium cladding system, which

151

1 I'd not seen before, and obviously there is the
2 performance of the new phenolic, which I'd not seen
3 before either.
4 Q. Yes.
5 A. So -- and because of this system, it kind of -- sorry,
6 the metalwork buckled, producing a chimney which kind of
7 flapped in front of the cladding, allowing it to leap
8 over the fire barriers, which allowed a large fire to
9 develop, which allowed the phenolic to become fully
10 involved in the test.
11 I was -- I mean, I was shocked, as you can see by my
12 words, that the phenolic was burning ferociously.
13 I think, you know, like I say, there's two things at
14 play: there's the cladding which is causing partially
15 the fault of failure, and there is also the new
16 phenolic, which I believe was improving as -- I believe
17 there was work being done to the ovens at the time,
18 I was told, to actually improve the performance of the
19 phenolic, and there was talk of fire barriers -- not
20 fire barriers, fire retardants being added or agents
21 being added to improve the material. So this is what
22 I wanted from this, so that's probably why I sent a very
23 animated report around to my superiors to make sure that
24 they were aware that I wasn't really overly pleased with
25 the new version, from this test's perspective.

152

1 Q. Would you agree that one of the things you were
2 particularly surprised about was that the phenolic was
3 burning on its own steam, as you record here?
4 A. Yeah, because I was brought up with those frequently
5 asked questions, answers, where I was told that it would
6 not contribute to fire growth and would die out under
7 its own steam.
8 Q. Yes.
9 A. So this was quite shocking for me, and the other guy
10 that attended, I believe.
11 Q. Yes.
12 You go on on page 3 to record your observations on
13 why the test failed and what improvements could be made
14 for future success. You note, if we go eight paragraphs
15 down, at the bottom of that screen as we can currently
16 see it, can you see it begins:
17 "Perforations in the Phenolic foil ..."
18 Can you see that?
19 A. Yes.
20 Q. It says:
21 "Perforations in the Phenolic foil facers have
22 caused a reduction in the Euroclass when tested in the
23 SBI [single burning item test]."
24 A. Yes.
25 Q. "Loss of the perforations may help?"

153

1 Can you see that there?
2 A. Yes.
3 Q. Can you help us: you were obviously aware that the
4 perforations had reduced the Euroclass when tested under
5 the single burning item test; when had you done those
6 tests and what was the level of reduction?
7 A. I felt -- this was a hypothesis of mine. I felt the --
8 okay, if I take you back to the old technology, when
9 I tried to test that to the Euroclass, the SBI, what
10 actually happened was the material would initially flash
11 fire and then it would drop, a light ash would fall and
12 it would block the flame, so it would sort of auto
13 extinguish the crib in the SBI test, so it would create
14 a void test. So it was actually impossible to get
15 a Euroclass, as far as I was aware, on the old
16 technology. So when the new technology, it tended to
17 remain more integral, it held together, and because it
18 was there, it glowed, and obviously if the flames were
19 continuous then it would at some point become involved
20 in the fire.
21 But you could see in this test that, and you can see
22 on the pictures of that terrible building, that there's
23 still pink foam on the outside of the building where
24 it's only a surface char. The material hasn't become
25 fully involved. You need to introduce quite a lot of

154

1 heat to actually get the product to go up.
2 So, you know, although I -- you know, I still
3 believe a lot of the information that I was given about
4 K15, that it's one of the better combustible insulants
5 in the marketplace.
6 Q. Back to my question: had you actually got formal SBI
7 testing done for the new technology foam, and what
8 classification did it achieve?
9 A. I think it was Euroclass C.
10 Q. Right. But would you agree, looking at that sentence
11 that I just read to you, or the two sentences, that you
12 clearly think at this time that the perforations may
13 well have caused a worsening of its fire performance?
14 That seems to be what you're speculating about at the
15 time.
16 A. I considered that a possibility, yes.
17 Q. Did you ever carry out investigations into why that
18 might be?
19 A. We thought it was potentially ignition of the blowing
20 agent.
21 Q. Because the perforations allow the ignition of the
22 blowing agent more readily; is that right?
23 A. More readily. Like I say, it was a hypothesis that was
24 never really proven. Although I lobbied for
25 a foil facer, an unperforated version on the one side,

155

1 it was impossible to manufacture the product in that
2 way, so I just had to test what I was given, which was
3 the perforated version.
4 Q. Did you discuss the effect on fire performance of the
5 introduction of perforations with anyone else within
6 Kingspan at this time?
7 A. I would have discussed it at the monthly technical
8 meeting. It was my current thinking, so I would have
9 discussed it with all my colleagues.
10 Q. Yes.
11 If we go to the paragraph below that one that we
12 just read, you say this:
13 "In all honesty from what I have seen the way the
14 phenolic burned is of the most concern. Therefore we
15 need to add a fire retardant. Which could also help us
16 get Class 0."
17 Do you see that there?
18 A. Yes.
19 Q. What was the reaction from Philip Heath and
20 Malcolm Rochefort to the news that this test had become
21 a raging inferno and performed so badly?
22 (Pause)
23 A. I can't remember their exact reactions. It might have
24 been that this was potentially the fault of the cladding
25 system at the time.

156

1 Q. Yes.

2 A. I can't remember any real sort of shock. But this was
3 the first time -- these were pioneering tests for
4 Kingspan. They weren't -- they hadn't been performed
5 before, so there was nothing similar done in Europe at
6 the time.

7 Q. We can see that you're clearly concerned about the way
8 the phenolic burned. Did Philip Heath and
9 Malcolm Rochefort share your concern about the fire
10 performance of the new technology K15 at this time?

11 A. Like I say, I think this might have been the time that
12 I was criticised for not being very positive about our
13 products -- or, sorry, the Kingspan products.

14 Q. So does it follow that you didn't think your managers
15 were concerned, or were concerned in the same way as
16 you?

17 A. I don't think they were concerned in the same way as me,
18 no.

19 Q. Yes.

20 A. I felt a tremendous responsibility for this, because the
21 buck stopped with the technical department to make sure
22 that it was suitable for the marketplace and we had to
23 do the testing.

24 Q. After you wrote this, and obviously this report was
25 delivered to the technical team, did you feel at the

157

1 time that your concerns about the fire performance of
2 new technology K15 were being taken seriously by
3 Philip Heath and Malcolm Rochefort?

4 A. I felt like I wasn't ever heard, actually, when it came
5 to issues like this.

6 Q. Did you actually have conversations with them as well as
7 writing this in which you said, "I'm really concerned
8 about how K15 performs, given the testing we've just
9 done, how it performs in fire"? Did you have those
10 conversations with them?

11 A. We were always -- there was always a new solution on the
12 horizon, we could try this, or we could do this, so
13 I was constantly being -- you know, there was something
14 round the corner that could help us move forward. So
15 I guess I was always hoping that that would be the end
16 of it, really.

17 Q. But do you actually have a specific recollection of
18 raising concerns with them?

19 A. I raised concerns on numerous occasions when it came to
20 new technology.

21 Q. About its fire performance?

22 A. Yeah.

23 Q. But you didn't think you were listened to; is that what
24 you're saying?

25 A. I might have been listened to, but they certainly didn't

158

1 respond to it.

2 Q. You said earlier that you thought it was around this
3 time that you were criticised for being too negative.
4 Who was it who criticised you for being too negative?

5 A. It would have been the managing director.

6 Q. So who was that, Malcolm?

7 A. Peter Wilson.

8 Q. Okay.

9 A. But that came secondary through my line manager.

10 Q. Okay.

11 Now, keeping with this document, underneath what you
12 have written are comments from the BRE. We can see that
13 at the bottom of that page. If we could go down the
14 page, and look at those. So here we can see it's
15 written:

16 "Comments from the BRE:

17 "The official line: It's a system failure no
18 individual component can be solely held responsible for
19 the failure.

20 "However (unofficial comments): It was apparent that
21 the insulation was fully involved in the test. Surface
22 spread of flame was apparent and the core continued to
23 burn when the flame source had been extinguished. They
24 stated they did not remember the product performing like
25 that last time."

159

1 Do you see that there?

2 A. Mm-hm.

3 Q. Who was it from the BRE who made these unofficial
4 comments that you have recorded here?

5 A. I feel it was Phil Clark. He was, I think, the most
6 easy to talk to and he was constantly available to
7 discuss testing with. So ...

8 Q. Yes.

9 A. And he was always there, and the other people, although
10 we'd request the presence of Sarah Colwell, Tony Baker,
11 those sort of people, they only, you know, came in
12 quickly just to witness the test from the back of the
13 room.

14 Q. Yes.

15 Was anyone at the BRE at this time aware that the
16 product tested on 20 December 2007 was a different one
17 from the product that had been tested in 2005?

18 A. I think I might have discussed this with Phil Clark,
19 you know, because I was looking to see -- you know,
20 I was looking to see his opinion on what he thought,
21 really, and I needed to glean as much information from
22 him as possible, so I was quite open with him.

23 Q. Right. When you say "I might have discussed it", how
24 sure are you that you did discuss it?

25 (Pause)

160

1 A. I'm sure I told him something about our new technology
2 and our ovens along the way.
3 Q. Okay.
4 A. Yeah.
5 Q. But other than Phil Clark, was there anyone else at the
6 BRE that you remember discussing or informing of that?
7 A. I might have voiced it to Tony Baker, because we were --
8 obviously the end goal, especially with the introduction
9 of the Kesteren technology, we were looking to spend
10 lots of money so we could justify potentially
11 certification for K15, and that's what I wanted, really,
12 was something that would ensure the formulation remained
13 constant, and we had visiting certification bodies who
14 would come in and, you know, make my life easier a bit
15 and make sure that, you know, we stuck to our
16 formulations.
17 Q. Yes.
18 Now, you have included in your executive summary
19 photographs from the 2007 test, as well as some
20 photographs from the 2005 test. I just want to look at
21 those now. If we can look on page 7 {KIN00008847/7} of
22 this report, I think we can see there the
23 K15/Sotech/Metsec system that was tested on
24 20 December 2007. We can see the clock on the right
25 there shows 13 minutes and 1 second. Do you see that

161

1 there?
2 A. Yes.
3 Q. So that's the rig at 13 minutes into the test.
4 Then if we go on to page 9 {KIN00008847/9} -- the
5 next page of the report is blank -- we can see the test
6 at almost 14 minutes, 13 minutes 57. Do you see that
7 there?
8 A. Yes.
9 Q. Then if we go to page 10 {KIN00008847/10}, that's
10 15 minutes in.
11 Then at page 12 {KIN00008847/12}, it's a bit faint,
12 but I think we can see it's 17 minutes and 43 seconds.
13 It's almost at the top of the rig by that point, isn't
14 it?
15 A. Yes, that's correct.
16 Q. We know from your summary that the top fire barrier was
17 breached around the 17-minute mark.
18 Now, if we could put side by side with that
19 photograph the photograph on page 21 {KIN00008847/21}
20 from the 2005 test. So on the right we can see the old
21 technology phenolic test 2005, do you see the caption at
22 the bottom?
23 A. Yeah, this is the naked test, isn't it, I think?
24 Q. Ah, is it?
25 A. It looks like it. There's no cladding system in there,

162

1 is there?
2 Q. Oh, I see.
3 A. And there's no fire barriers either, by the looks of it.
4 Q. I see. So that's 25 minutes in on that test.
5 A. Yeah.
6 Q. Yes, I see.
7 A. And you can see what I was saying there, that it just
8 fell away. It didn't move up.
9 Q. Yes, I see. So what you're doing by including these
10 photographs in the report, is it, is to try and
11 illustrate --
12 A. The difference in the --
13 Q. -- the difference in the way the K15 was performing?
14 A. I mean, to give a fairer picture I should have put the
15 picture of the test failure that was -- that happened
16 a week before with the mineral wool insulation, because
17 I believe that failed in a similar manner.
18 Q. Right.
19 A. Although not quite as dramatic, it was still -- the
20 cladding melted and the fire jumped up the side of the
21 façade.
22 Q. Yes.
23 If we carry on with photos of the 2007 test once the
24 crib's been extinguished, if we go to page 13
25 {KIN00008847/13} now and just look at that, these are

163

1 photos you have included. This is at, you can see,
2 36 minutes and 10, do you see that? This is after it's
3 been extinguished.
4 A. Yes.
5 Q. Then page 14 {KIN00008847/14}, you're including close-up
6 pictures then of the insulation after the test; is that
7 right?
8 A. That's correct, yes.
9 Q. Yes.
10 Then if you look at page 16 {KIN00008847/16}, that
11 shows the damage to the front of the rig and also the
12 wing wall. Can you see that there?
13 A. Yes.
14 Q. If we can contrast that with the photo on page 22
15 {KIN00008847/22}, which I think is what you were trying
16 to achieve in the report, from the 2005. If we can put
17 those two side by side, 22 and 16.
18 Now, this time, that page on the right, page 22,
19 isn't that the test you did do in 2005 with the
20 non-combustible cladding board on it?
21 A. Yes, that's correct.
22 Q. We can see the difference there between the test on the
23 right and the test on the left; yes?
24 A. Yes.
25 Q. Now, I appreciate they're not directly comparable

164

1 because one is on a masonry substrate and one is on
 2 a steel frame substrate, but, again, were you including
 3 these pictures in order to give the reader a flavour of
 4 how different the performance had been of the K15 in the
 5 2007 test?
 6 A. Yes, definitely .
 7 Q. We talked about your concerns just a moment ago. Was
 8 one of your concerns at this point that what Kingspan
 9 was actually selling to the public was potentially
 10 dangerous in terms of its performance in fire? Was that
 11 one of your concerns?
 12 A. I'd say certainly, yeah.
 13 Q. Did you ever give consideration or discuss with anyone
 14 else within Kingspan whether sales of K15 should be
 15 halted immediately and the product recalled from the
 16 market?
 17 A. I think, like I said before, the product was going
 18 through an evolution from old technology to new
 19 technology, so I was always being sort of suggested
 20 that, you know, we just need to box out these issues and
 21 the better variant will be round the corner,
 22 potentially .
 23 But, no, I never discussed that it should be
 24 fully -- we should not have it in the marketplace.
 25 I kind of sat on my hands with that a little bit. I was

165

1 the bottom of the rung. I was already told not to be
 2 too negative, so I was just going with the flow a little
 3 bit, I'm afraid to say.
 4 Q. Were you aware of anybody else considering that question
 5 within Kingspan, whether it should be removed from sale,
 6 given how differently it was performing?
 7 A. Nobody that was talking to me.
 8 Q. Okay.
 9 We'll come back to talk about class 0 much later,
 10 probably tomorrow, but in your report we saw that you
 11 said, "Let's add a fire retardant to the product". What
 12 was the response to that suggestion?
 13 A. I think my suggestion for a fire retardant was -- it
 14 came from the R&D people, because I was looking at --
 15 obviously we weren't successfully able to repeat the
 16 class 0 results that we had on the Kesteren technology,
 17 so I was just trying to be comprehensive and, you know,
 18 say, "Okay, well, if we needed it for class 0, it would
 19 be a benefit for this situation as well", to try and add
 20 a bit of weight to the argument, really, that we needed
 21 to do something.
 22 Q. Okay.
 23 Had any fire retardants been added to samples of K15
 24 for testing before this time, to your knowledge?
 25 A. Not as far as I'm aware. Like I say, my chemistry is

166

1 not brilliant, and I had been told that fire retardants
 2 had been added to PIR to modify the viscosity of the
 3 material, it wasn't specifically for adding
 4 fire retardancy. So, like I say, I'm not up on the
 5 chemistry, really .
 6 MS GRANGE: Okay.
 7 Mr Chairman, I think that would be a good moment for
 8 a break because I'm moving to the next test .
 9 SIR MARTIN MOORE-BICK: Well, are you going to a new topic?
 10 MS GRANGE: Yes.
 11 SIR MARTIN MOORE-BICK: All right. Well, then, we will have
 12 a short break.
 13 We will have a short break now, Mr Meredith. We
 14 will come back at 3.35, please, and again, please don't
 15 talk to anyone about your evidence.
 16 THE WITNESS: No problem.
 17 SIR MARTIN MOORE-BICK: All right, thank you very much.
 18 (Pause)
 19 Right, 3.35, please. Thank you.
 20 (3.17 pm)
 21 (A short break)
 22 (3.35 pm)
 23 SIR MARTIN MOORE-BICK: Right, Mr Meredith, all right?
 24 Thank you.
 25 Yes, Ms Grange.

167

1 MS GRANGE: Yes, thank you.
 2 Now, moving forward with the story, it's right,
 3 isn't it, that on 1 April 2008 there was another
 4 large-scale fire test with Sotech aluminium panels and
 5 a Metsec steel frame; that's right, isn't it?
 6 A. This is the one that we were just looking at the photos
 7 of, yeah?
 8 Q. No, that was from 2007, and this one is now
 9 1 April 2008.
 10 A. Yeah, there was two tests in the programme originally.
 11 Q. Yes.
 12 A. There was a mineral wool test and then a phenolic test.
 13 Both those first two tests failed .
 14 Q. Yes.
 15 A. The test was repeated with mineral wool only --
 16 Q. Yes.
 17 A. -- on Sotech's request.
 18 We could see that there were issues with the Sotech
 19 material for starters .
 20 Q. Right.
 21 A. You know, it failed with a combustible --
 22 non-combustible insulant, so, you know, we could see
 23 that that would be something that we'd have to not be
 24 used with, really .
 25 Q. So that test was also a fail, wasn't it, 1 April 2008?

168

1 A. Yeah.
 2 Q. I now want to move on to some testing that was
 3 undertaken in partnership with Kingspan Offsite, that
 4 subsidiary company of Kingspan, on 9 April and
 5 6 June 2008 using K15.
 6 If we can go to an internal email chain within
 7 Kingspan, this is at {KIN00008843/2}, and I want to
 8 start at the bottom of page 2. There's an email right
 9 at the bottom there at 9.37 on 9 June from you to
 10 Malcolm Rochefort and Vincent Coppock, copying in
 11 Philip Heath and Gwyn Davies, and the subject is "K15
 12 Problems", do you see that there?
 13 A. Yes. I see the top of it, anyway.
 14 Q. Don't worry, we will go to the body of it. Then we go
 15 over the page {KIN00008843/3} and we can see that you
 16 say this:
 17 "The question of K15s bad fire performance is no
 18 longer just an internal one. IT would seem Offsite had
 19 a very dramatic test failure.
 20 "Therefore I need to know how soon I can have
 21 samples of the OP90 Phenolic for [business] critical
 22 R&D."
 23 Is that research and development?
 24 A. Yes.
 25 Q. Yes:

169

1 "Once I have reviewed the information I will provide
 2 a more comprehensive report later however the attached
 3 picture shows the most recent K15 test performed by
 4 Offsite and K15 burning under its own steam 10 minutes
 5 after the test was put out. Offsite are gravely
 6 concerned that we are selling something that doesn't do
 7 what we say it does."
 8 Then it says:
 9 "To validate the new product from a fire point of
 10 view I would need samples of the following ..."
 11 Then you set out various requirements for the new
 12 testing. Do you see that there?
 13 A. Yes, I do.
 14 Q. Now, when you say there it's no longer just an internal
 15 one, ie the problem with K15 and its bad fire
 16 performance is no longer than just an internal one, do
 17 you say that there because it was already a matter which
 18 was known internally within Kingspan, including to
 19 Philip Heath and Malcolm Rochefort?
 20 A. Yes.
 21 Q. Now, on the face of this document, it appears that you
 22 had serious concerns about the performance of the
 23 product; is that fair?
 24 A. That's correct, yes.
 25 Q. The views of Philip Heath and Malcolm Rochefort, is your

170

1 answer the same as the answer you gave earlier about
 2 what their views were of how concerning this was?
 3 A. I think they were listening to me and looking for
 4 solutions, but I don't remember anything ... you know,
 5 they weren't as concerned -- I didn't feel they were as
 6 concerned as I was.
 7 SIR MARTIN MOORE-BICK: Sorry to interrupt you. Can I just
 8 ask: did they know about what's described here as a very
 9 dramatic test failure? Did they know about that?
 10 MS GRANGE: Yes, I think they're on this email chain.
 11 A. Yeah, they would have been -- they would have had --
 12 their opposite numbers in that part of the business
 13 probably would have communicated this to them as well
 14 and I'm not privy to it, but I obviously informed them
 15 of this -- you know, so far as I was aware, this was the
 16 first time they were hearing about it, but I wouldn't be
 17 surprised if they knew about it already.
 18 SIR MARTIN MOORE-BICK: Yes, thank you.
 19 Yes, Ms Grange.
 20 MS GRANGE: When Kingspan Offsite asked if Kingspan was
 21 selling something that "doesn't do what we say it
 22 does" -- that's what you have said there at the end of
 23 the third paragraph -- was anyone at Kingspan Offsite
 24 aware that the 2005 test had used a different version of
 25 K15?

171

1 A. I don't think so.
 2 Q. You don't think Kingspan Offsite were aware that it was
 3 a different product?
 4 A. No.
 5 Q. We can see that you're asking for samples of an OP90
 6 product in the second sentence there at the top of the
 7 page.
 8 A. Yeah.
 9 Q. "... I need to know how soon I can have samples of the
 10 OP90 Phenolic for [business] critical R&D."
 11 What's OP90 referring to?
 12 A. This was one of the latest considered modifications of
 13 the Kesteren technology. I think it might have been
 14 a fire retardant or an additive that was being
 15 considered by Vincent that was being talked about as
 16 a possible inclusion.
 17 Q. I see.
 18 A. So I was trying to push for this to be available, "Let's
 19 do a trial". Once they'd done a trial, and I would put
 20 it through that testing regime that I'd stipulated,
 21 you know, I'd be able to formulate, you know, our best
 22 route forward, really.
 23 Q. Yes, I understand. So if you got a product with
 24 a fire retardant added to it, you could do some testing
 25 and see how far that got; yes?

172

1 A. Yeah.
 2 Q. Yes.
 3 In the last paragraph of this email, you say:
 4 "In respect of using just one perforated side on the
 5 structural foil faced PFs [phenolic foams] it was agreed
 6 at the meeting that this could happen but how do we put
 7 it in place and make sure it happens??"
 8 "Is this a PPDS situation? Does anyone know the
 9 cost implications??"
 10 So what you're also suggesting there -- is this
 11 right? -- is that you might also test using one
 12 perforated side and one unperforated side?
 13 A. This was something I desired and in technical meetings
 14 it was said that this was a possibility, but I don't
 15 think it ever -- I don't think they could actually
 16 manufacture it when they tried.
 17 Q. Were you keen to return to an unperforated foil facer
 18 from a fire safety point of view?
 19 A. I wanted something that would comfortably meet the
 20 requirements.
 21 Q. Yes.
 22 If we go to another email in the same string, this
 23 is {KIN00003704}. If we look at the top of page 1, on
 24 9 June 2008, at 9.22 am, it's within the string "K15
 25 Problems", this is Philip Heath to Malcolm Rochefort,

173

1 you, Vincent Coppock, copying in Gwyn Davies. We can
 2 see he says:
 3 "Ivor, I think it is important we see the fire test
 4 report from Off-Site whilst also looking at the façade
 5 assembly, cavity widths and materials adopted within the
 6 test rig.
 7 "Any response to Off-Site on this matter should be
 8 run past myself before it is sent to the outside world.
 9 As you know, Off-Site are extremely reactionary.
 10 "With regards to their comment 'that we are selling
 11 something that doesn't do what we say it does' what
 12 statements are they referring to?"
 13 Do you see that there?
 14 A. Yes.
 15 Q. Now, what did you understand him to mean when he said
 16 "Off-Site are extremely reactionary"? He is obviously
 17 concerned about whatever response is sent to them.
 18 A. Yeah, Offsite would include any material that would help
 19 them sell their system, and they would often use
 20 a non-combustible -- a mineral wool type insulant.
 21 I know Phil and others in Kingspan felt this was not
 22 running with the Kingspan way, really. If you're going
 23 to sell a Kingspan system, it needs to include
 24 a Kingspan insulation.
 25 So I think he was concerned that the Offsite leg of

174

1 the business might not have been solely on the same page
 2 as the rest of the business.
 3 Q. I see. So are you saying that Kingspan Offsite were
 4 testing a system which didn't have the Kingspan
 5 insulation as part of it, and, what, were passing that
 6 off as --
 7 A. No, no, no, not at all. What I'm saying is Kingspan --
 8 they would use -- they would have no issues with using
 9 a mineral fibre insulant in their wall system --
 10 Q. I see.
 11 A. -- and marketing it as having a mineral fibre insulant
 12 in their wall system.
 13 Q. Yes.
 14 A. Phil and others in Kingspan believed that if you're
 15 selling a Kingspan system, it needs to have Kingspan
 16 insulation in there. He was a bit kind of, like many of
 17 us, offended by the fact that they would seek to use
 18 something else when really they should be sticking with
 19 their own.
 20 Q. Right, yes.
 21 In the meantime, Malcolm Rochefort has responded to
 22 you. If you look at the email below that on 9 June at
 23 9.42, he says to you:
 24 "Please expedite this trial.
 25 "Ivor, if you're confident that old process will

175

1 pass the test, we may have no choice but to provide old
 2 process K15 for Off site until the FR issue is sorted
 3 out."
 4 Do you see that there?
 5 A. Yes.
 6 Q. Then he says:
 7 "Gwyn, I know this is a nightmare for processing,
 8 but we can't carry on providing something that we know
 9 fails a fire test."
 10 So is what he is referring to there that you might
 11 have to make a batch of old technology K15 to provide to
 12 Offsite for the fire testing?
 13 A. Not just for the fire test; he is talking about
 14 providing old-process K15 to Offsite.
 15 Q. Generally?
 16 A. Generally, yeah. That's what he's angling at there.
 17 Q. I see.
 18 A. The thing is, there's a battle going on here, there's
 19 a transition that they're changing the technology from
 20 old to new, and this is not going to be good news to the
 21 processing manager, that we're trying to go back towards
 22 old technology. So, you know, he's going to want to
 23 focus on new technology and we need to get new
 24 technology sorted, not old technology. So it's quite
 25 an emotive comment there by Malcolm, but it's a fair

176

1 comment as well.
 2 Q. Which bit are you saying is the emotive comment? The
 3 "can't provide" --
 4 A. He's saying that you can't provide something -- which is
 5 true, you've got to provide the right solution for the
 6 job. So it does mean it's going to be a nightmare for
 7 production to have to produce old technology one day and
 8 new technology the next.
 9 Q. Yes.
 10 A. But if that's what the market needs to sell that
 11 product, then that's what we were going to have to do.
 12 Q. Right. But you didn't take him to be saying that,
 13 actually, new technology K15 shouldn't be being provided
 14 to anybody; not just Offsite, to anybody?
 15 (Pause)
 16 He says:
 17 "... we may have no choice but to provide old
 18 process K15 for Off site."
 19 A. Could you rephrase the question again, please?
 20 Q. Yes. So I think you said it's quite an emotive comment
 21 by him, that we can't keep providing a product that we
 22 know fails, but isn't it a fair reading of his email
 23 that what he is saying is we've got no choice but to
 24 provide old process K15 to Offsite until the FR issue is
 25 sorted out --

177

1 A. Yeah, no, sorry, the emotive nature is the upset to the
 2 production process by providing new technology one day
 3 and old technology the next.
 4 Q. Right, I see.
 5 A. So to satisfy Malcolm's desire that we provide old
 6 technology K15 to Offsite, or maybe to the market, until
 7 the FR issue is sorted out, that's going to be
 8 a nightmare for our production team. So that's why
 9 I said that was emotive.
 10 Q. Yes.
 11 Mr Rochefort has said in his witness statement that
 12 he was concerned that new technology K15 was not
 13 supplied to customers if the fire performance was
 14 inferior to old technology.
 15 Did you understand him to mean that, or understand
 16 him to say that on another occasion, that he was
 17 concerned that it wasn't supplied to customers if the
 18 fire performance was inferior?
 19 (Pause)
 20 A. I don't know what that refers to apart from this
 21 particular issue here.
 22 Q. Yes, he says, "This is why I responded in this way in
 23 this email". He's saying that, in this email, he is
 24 expressing a concern about providing it to customers.
 25 What I'm asking is: when you received this email, is

178

1 that how you understood it?
 2 (Pause)
 3 A. Yeah, I thought, to be honest -- reading it now, I think
 4 I might have thought that he was just talking about,
 5 "Let's make sure Offsite receive this product for their
 6 testing and maybe for their ongoing purchases until we
 7 can iron out the issues".
 8 Q. Right.
 9 A. So I don't -- you know, this was one -- this would have
 10 been a -- this would have caused a lot of trouble, this
 11 email, really. So I think they battled it out between
 12 them as to what they were going to supply going forward.
 13 Q. Yes.
 14 Just putting this email to one side for the moment
 15 and just thinking generally, did Mr Rochefort ever raise
 16 any concerns with you about supplying customers with new
 17 technology K15, given the fire risk it posed?
 18 A. I don't think -- as far as I recollect, Malcolm didn't
 19 raise issues with me, it would be me raising issues with
 20 him. I would always go to him with my problems, not
 21 vice versa. So ... I can't recollect, unfortunately.
 22 Q. Okay.
 23 Let's go now to another email chain from
 24 9 June 2008. So this is {KIN00020913/5}, and this email
 25 chain that we were looking at continues. I want to look

179

1 on page 5. We see at the bottom there the email from
 2 Mr Rochefort that we were just looking at, and then
 3 immediately above that there is an email from
 4 Gwyn Davies at 10.09, where he says:
 5 "Ivor - please confirm that the Old Process passes
 6 the Test as I was under the impression that the 'Old'
 7 K015 100mm trial I made a few weeks ago was no better
 8 either?"
 9 Do you see that there?
 10 So is the "'Old' K015 100mm trial" that he made
 11 a few weeks ago a reference to remaking old technology
 12 K15?
 13 A. I don't know. And this could be for any number of
 14 tests, so I'm not sure what this was for, unless this
 15 was -- no, I don't know, to be honest.
 16 Q. Okay. Let's look at your response, if that helps. If
 17 we go up to page 4 {KIN00020913/4}, we can see your
 18 response at 18.01 on 9 June. You say to Gwyn Davies and
 19 also Malcolm Rochefort, Philip Heath is copied:
 20 "Your(sic) correct the old process I recently tested
 21 unfortunately also failed. However the New process
 22 would not have had a chance.
 23 "Whereas old process will self extinguish, new
 24 process has proven itself in a vertical situation to
 25 continue to burn when the flame source is removed. We

180

1 do have a paper trail that shows considerably better
 2 performance with old tech however this cannot be applied
 3 to steel frame facade situations which is 80% of the
 4 market.
 5 "I don't (currently) suggest we revert to old
 6 technology yet just give top priority to getting the
 7 OP90 trialed(sic)."
 8 Do you see that there?
 9 A. Yes.
 10 Q. When you are referring to a paper trail showing
 11 considerably better performance for old tech K15
 12 compared to the new tech, what are you referring to
 13 there?
 14 A. I'm talking to analysis of the existing test data.
 15 Q. So some of the documents I've just taken you to?
 16 A. Yeah.
 17 Q. Yes.
 18 Now, I want to ask you about some email
 19 correspondence where you and Philip Heath were dealing
 20 with enquiries from Kingspan Offsite about the poor
 21 performance of K15 in June 2008 and following.
 22 If we can go to {KIN00020917/2}, and if we look
 23 about halfway down page 2, we have an email from
 24 Mark Stevens of Kingspan Offsite sent at 15.48 there at
 25 the bottom half of that page. He sends this on 2 July

181

1 to you and Philip Heath, and he says this:
 2 "Ivor/Phil,
 3 "I am concerned with the lack of response with
 4 regard to the performance of the K15 product on the
 5 BS 8414 tests that we have completed. I have a further
 6 four tests booked as you are aware, and at this time
 7 I am unsure of the way forward in terms of detailing the
 8 samples to pass the test. We have the samples built
 9 here at Sherburn, insulated with material from the same
 10 batch as the previous failed tests: is the material
 11 appropriate to use on the future tests? Is the reason
 12 for the failure specific to a batch of K15, to the
 13 current formulation of K15 or to the details that we
 14 used? Is it normal for K15 to continue to burn for in
 15 excess of 30 minutes from the removal of the ignition
 16 source?"
 17 Do you see that there?
 18 A. Yes.
 19 Q. Now, he is saying in those opening words, "I am
 20 concerned with the lack of response about the
 21 performance of K15". Had there been a lack of response
 22 to them about its performance at this point?
 23 A. I think he may have called myself or Phil. I think
 24 I may have remembered, you know, Phil said specifically
 25 that I'd need to pass anything through him, so I allowed

182

1 Phil to deal with this. So, yeah, there might have been
 2 not an instant response.
 3 Q. These questions can't have come as a surprise to you,
 4 can they, given what you had witnessed in the 2007/2008
 5 tests?
 6 (Pause)
 7 A. Yeah. They're not a surprise, but it's a very complex
 8 story, because there's a number of things going on here:
 9 there's the change in technology, there's the
 10 performance of the actual cladding element, you know,
 11 what type of cladding it was, was it their aluminium
 12 cassette or their steel cassette or whatever it was.
 13 Also, you know, we're trying to -- we're trying to fix
 14 out the formulation that we're using at the time.
 15 I don't think I was involved in supplying the K15 that
 16 they used for this, so it was making -- you know, making
 17 sure that that -- what batch that was.
 18 Q. Okay.
 19 If we look at the next email in the chain at the top
 20 of page 2, we can see Philip Heath responds just over
 21 an hour later at 16.52. He writes as follows, he says:
 22 "Mark,
 23 "As you are aware, there are always inconsistencies
 24 in relation to fire tests, both large and small scale.
 25 You have seen the results achieved by Kingspan

183

1 Insulation with regards K15, both with a 'generic'
 2 cladding and without cladding and the result were
 3 similar, with the temperature of the thermocouples being
 4 within the guidelines of the standard. The burn pattern
 5 of the K15 was also identical in each instance with no
 6 continuation of the burning seen in your test. As with
 7 all companies within the Group we are always striving to
 8 improve the performance of our products. With this in
 9 mind we are currently waiting confirmation of the
 10 availability of formulation additive that we believe may
 11 improve the fire performance of K15. Our resin
 12 suppliers are working to understand the viscosity
 13 increase that may be seen with this addition to the
 14 formulation which may or may not affect our processing.
 15 This being standard practice in resin manufacture in
 16 like with H&S of chemical reactors."
 17 Then he says basically we're awaiting confirmation
 18 of timescales and two months before we get a trial
 19 online. Then he says:
 20 "With regards to the reason for failure, this is
 21 difficult to determine, especially having already had
 22 some success with BS8414, I would suggest only the BRE
 23 technicians can confirm if it was due to details that
 24 were adopted."
 25 Do you see that there?

184

1 Now, can you remember discussing this response with
 2 Philip Heath -- you're copied in there -- before it was
 3 sent?
 4 A. I believed I would have discussed it. I might have even
 5 assisted with some of the -- maybe the first couple of
 6 sentences. But the latter stuff, with regards to the
 7 viscosity increase and the availability of resin,
 8 et cetera, that wouldn't have been something that came
 9 from me. But I'm sure, you know, we would have
 10 discussed it or he would have rung me up to say, "Look,
 11 hold fire, I'm answering this one" or ...
 12 Q. Can you help us as to why he doesn't in this email make
 13 plain that the K15 product that they were testing was
 14 different to the K15 product tested in 2005? Isn't that
 15 a very important piece of information that
 16 Kingspan Offsite ought to be being told at this point?
 17 A. I feel that Phil and myself at the time believed that
 18 there were so many complicated factors involved in this
 19 that, yes, there was a difference in the performance of
 20 the materials, but also there was a great deal of
 21 difference in the performance of the test when utilising
 22 different cladding systems.
 23 Q. Yes.
 24 A. We really didn't have a proper understanding at this
 25 point, and I don't think anyone in the industry had, as

185

1 to what all the answers were. So I feel Phil's just
 2 holding back a little bit of information. Yes,
 3 you know, it perhaps would have helped if he'd have,
 4 you know, given him the full story, but ...
 5 Q. Would you agree with me, if he was being open and
 6 transparent with Kingspan Offsite, they would have been
 7 told that the performance of the tests that he's
 8 referring to there, which are clearly the earlier tests
 9 on old K15, were on a different product? Do you agree
 10 with that --
 11 A. Yes.
 12 Q. -- if he was being open and transparent?
 13 A. Yes, of course, yes.
 14 Q. If we scroll up to the next email in the chain
 15 {KIN00020917/1}, it's from you to Philip Heath on
 16 3 July 2008, so the next day. It's right at the bottom
 17 of that page, and you say this:
 18 "Help - I'm getting seriously grilled now based on
 19 this email ... I'm currently on the phone.
 20 "We need to ensure continuity of our answers
 21 otherwise we will destroy our relationship and never be
 22 taken seriously again - also I may get accused of being
 23 a liar if we change our story.
 24 "Are we saying that the product supplied which
 25 failed their test is the same product that we got to

186

1 pass the test?
 2 "I have been working closely with the BRE
 3 technicians and they are currently helping us understand
 4 why old tech worked and new tech doesn't and whether
 5 OD90 will have a chance. Obviously the PF [phenolic
 6 foam] I have been supplying is called A, B & C therefore
 7 they have minimal information."
 8 Do you see that there?
 9 A. Yeah, so that was what I mentioned earlier, that I was
 10 very open with the BRE about we were changing technology
 11 because we were trying -- I was trying to glean as much
 12 information out of them, but obviously Phil had taken
 13 a different route with our sister company, so I felt
 14 that was compromising us even more.
 15 Q. Yes.
 16 Can we just look at the body of the email again, and
 17 have it in front of us, back on the other page.
 18 You ask a question in the third paragraph there:
 19 "Are we saying that the product supplied which
 20 failed their test is the same product that we got to
 21 pass the test?"
 22 Did you ever get a response to that? What was
 23 Philip Heath's response?
 24 A. "Who are you getting grilled by?" I think that was his
 25 response. I don't ... it's a bit of a political answer,

187

1 isn't it?
 2 Q. When you say at the bottom there:
 3 "Obviously the [phenolic foam] I have been supplying
 4 is called A, B & C ..."
 5 Did you mean that the phenolic foam you were
 6 supplying to Kingspan Offsite was called --
 7 A. No, no, the phenolic foam I would supply to the BRE,
 8 I would give them the production date, perhaps the
 9 production number, and I would say batch A, batch B,
 10 batch C.
 11 Q. I see, so you gave the BRE a lot of detail?
 12 A. Yeah, but you wouldn't say that batch A is the OP90
 13 variant, batch B is the calcium carbonate variant or
 14 whatever, I wouldn't go into that sort of detail, but
 15 I would give them the production numbers, so at a later
 16 date they could trace those back.
 17 Q. But you weren't doing the same with Kingspan Offsite, is
 18 that what you're saying?
 19 A. I think Kingspan Offsite were just supplied K15.
 20 Q. And they --
 21 A. I don't actually think -- I think if I remember
 22 correctly that they didn't involve us in the procurement
 23 of the materials for the test, they just took what they
 24 had as standard product out of their warehouse. And,
 25 you know, there was a question as to how old that

188

1 product was or whatever, but --

2 Q. Yes.

3 A. That's why I always wanted to be involved -- whenever we

4 were supplying anything for a test, I wanted it to come

5 from myself or my team so we knew exactly what was sent.

6 Q. Yes.

7 A. Whether that was listed in the report or not, at least

8 somebody knew what we'd actually tested so we could

9 glean the best we could out of the results.

10 Q. Yes, I think this culminates, this chain, in saying --

11 he's replied there, "Who are you getting grilled by?",

12 and then he says why don't you ask Kingspan Offsite to

13 put their concerns in writing. Perhaps if we can look

14 up at the top of that page, see if we can see that.

15 Yes, at the top there he says:

16 "Forward emails and or ask them to put concerns in

17 writing."

18 Can we look now at an email from Aidan Wilkinson of

19 Kingspan Offsite dated 16 July 2008. This is

20 {KIN00003714}, and it's the email at the bottom of

21 page 1 at 9.58 on 16 July.

22 He writes in a similar vein as Mark Stevens from

23 Kingspan Offsite, and he says:

24 "Hello Ivor,

25 "Following the recent fire tests at the BRE we have

189

1 the following concerns:-

2 "After the heat source was extinguished the K15

3 continued to burn on for considerable time in fact it

4 was in excess of 30 minutes. It was only extinguished

5 when the BRE applied water to it at the end of the

6 one hour duration. (the heat source had been

7 extinguished at 22 minutes)

8 "Is this what is expected of this material, is it

9 normal for K15 to continue to burn for in excess of

10 30 minutes after the removal of the ignition source? Is

11 the reason for the failure specific to a batch of K15,

12 to the current formulation ...

13 "We are concerned with the lack of response with

14 regard to the performance of the K15 product on the

15 BS 8414 tests that we have completed. We have a further

16 four tests booked as you are aware, and at this time we

17 are unsure of the way forward in terms of detailing the

18 samples to pass the test."

19 You see that?

20 Now, it's over two weeks now since Mark Stevens has

21 sent a very similar email and Philip Heath had replied.

22 If we look at the next email above, on the same day,

23 it's from Philip Heath who writes to you and

24 Malcolm Rochefort. If we could look at this, he says:

25 "Good evening,

190

1 "We need to be careful how we answer the concerns of

2 Off-Site, any suggestions?"

3 Do you see that there?

4 A. Yes.

5 Q. Did you understand this comment to be in relation to not

6 letting Offsite find out that the K15 they were using

7 was new technology K15, which could not repeat the test

8 results of old technology K15?

9 (Pause)

10 A. Sorry, what was the question again?

11 Q. Yes, it was whether you understood that comment to be in

12 relation to not letting Offsite find out that the K15

13 they tested was new technology K15? Is that why he's

14 saying "We need to be careful how we answer the concerns

15 of Off-Site"?

16 A. I think he didn't want us to put anything in writing

17 that they could use as justification for not using

18 phenolic foam in any of their cladding systems. You

19 know, he was just being cautious. It's not black and

20 white as to whether new technology is considerably worse

21 than old technology in a rainscreen test. There are so

22 many other factors. Yes, it's marginally worse, but

23 when you're looking at different cladding systems,

24 et cetera, there are so many factors that become

25 involved.

191

1 Q. Can we look at {KIN00008844/2}, about halfway down, we

2 see the same email from Philip Heath we just looked at

3 about the need to be careful, and then we get your

4 response above that, starting at the bottom of page 1

5 and over to page 2. If we can just look at the bottom

6 of page 1, just to see that, it's on 17 July at 11.29,

7 right at that bottom.

8 If we go over, we can see that you say:

9 "Aidan is pushing me for a meeting so we can work

10 together on getting a pass for Offsite. This collective

11 work could be of great benefit but first we need to

12 agree what can be disclosed.

13 "I have inserted some answers below, however believe

14 we should tread very carefully here. By Offsite going

15 all out for LPCB approval with their first tests (i.e.

16 fully witnessed) has not been wise and this move could

17 be responsible for a lot of the questions we are now

18 getting from industry.

19 "I think we should at least discount the product

20 previously supplied as [an] especially bad batch

21 however..."

22 Then you go on and you talk about what you can see

23 in the video on that test.

24 Now, you're saying early on in that email that "we

25 need to agree what can be disclosed". Who was deciding

192

1 what should be disclosed to Kingspan Offsite at this
 2 time?
 3 A. Well, I would say my line manager, Phil, was driving --
 4 you know, everything had to be passed through him.
 5 Q. Yes.
 6 A. So -- but I was simply just throwing ideas at the wall
 7 here, because I needed -- I've got a relationship with
 8 Offsite as well, I needed those things to be resolved so
 9 I could move forward, because I saw the body of evidence
 10 that was being created by Offsite as a great benefit to
 11 Kingspan Insulation, because this could be helped to
 12 push for EXAP details with the BRE.
 13 Q. Right.
 14 A. So I wanted the issue boxed out as soon as possible --
 15 or bottomed out, sorry.
 16 Q. Can you help us understand the sentence there about the
 17 questions Kingspan were getting from industry? You're
 18 obviously concerned that people have fully witnessed
 19 that test and it's not been wise. You say:
 20 "... this move could be responsible for a lot of the
 21 questions we are now getting from industry."
 22 That's in that second paragraph.
 23 A. Right, what was the date of this again?
 24 Q. So it's 17 July 2008.
 25 A. I think there was a lot of systems, you know, rainscreen

193

1 was really kind of taking off, or we were seeing it take
 2 off. I'd say our competitors were becoming aware of it,
 3 and they were, you know, pushing back at Kingspan for --
 4 you know, trying to, you know, just push back, ask lots
 5 of questions, people were trying to get hold of reports
 6 on the sly.
 7 Q. Were they questions about the suitability of K15 for use
 8 over 18 metres?
 9 A. Of course they were, yes.
 10 Q. How were those questions being answered by Kingspan at
 11 this time?
 12 A. My understanding at the time was that we were simply
 13 presenting the information that we had as, "This is what
 14 we have to verify its suitability of use, but you need
 15 to go out and seek verification with your appropriate
 16 building engineer, fire engineer, and the other
 17 component suppliers", because we only had -- we could
 18 only show that our product had the ability to perform;
 19 it didn't perform in all scenarios.
 20 Q. Why do you say in that second paragraph that it was not
 21 wise for Offsite's tests on systems including K15 to
 22 have been fully witnessed? What was there to hide?
 23 A. Okay, when you go for certification, I explained this
 24 earlier, but you -- rather than the manufacturer just
 25 sending the product to the laboratory and the laboratory

194

1 test it and just record the batch number, et cetera, the
 2 laboratory would often send somebody to the
 3 manufacturer, they would witness the production run,
 4 they'd make a note of the standard operating procedure,
 5 they'd probably sign the product and then they would,
 6 once it's delivered to the test house, check that the
 7 signature was the same, that the seal hadn't been
 8 removed or whatever. That would then be verifying that
 9 what the manufacturer was producing was the same as what
 10 they tested. So then they'd trace that back when they
 11 visit the factory on further dates.
 12 So, I mean, my concern there was it's not wise
 13 because we hadn't -- sorry, Kingspan hadn't bottomed out
 14 the formulation issues at that point.
 15 Q. Right, i.e. what K15 could be used to pass these
 16 full-scale fire tests; yes?
 17 A. Yeah, or how K15 was configured, really.
 18 Q. Just to be clear, K15 was being sold at this time,
 19 wasn't it?
 20 A. Yeah, of course.
 21 Q. If we go back to the chain {KIN00003714/1}, we can see
 22 at 9.19 Malcolm Rochefort says to you and Philip Heath
 23 and Vincent Coppock:
 24 "I think the best response at the moment is to say
 25 that we are investigating possible reasons for the

195

1 failure and will come back to them as soon as we are
 2 clearer on what caused it. Meanwhile we recommend they
 3 do not test the other material they have used to
 4 fabricate the installations as that was the same batch
 5 and may suffer from a similar problem.
 6 "If necessary I suppose we could send old
 7 formulation material for the testing if you think this
 8 has a better chance and they are pressing, but this is
 9 undesirable for several reasons and I'd rather delay and
 10 get the new FR product made as soon as Hexion can supply
 11 material - which we are waiting on."
 12 Do you see that there?
 13 A. Yes.
 14 Q. So is that what occurred, that effectively you delayed
 15 with Kingspan Offsite while you tried to work out
 16 whether there was a better FR K15 product that could be
 17 developed?
 18 A. I think that was how it went down, yes.
 19 Q. Can we look now at a document from April 2008, this is
 20 {KIN00003698}. This is your monthly report for the
 21 technical department that you sent to Philip Heath, it
 22 would appear. If you look at the top, "Report Period
 23 4 April 2008" by Ivor Meredith.
 24 Sorry, can I just clarify, I should have put that as
 25 a question: is this a monthly report for the technical

196

1 department that you sent to Philip Heath?
 2 A. It's my monthly report, yes.
 3 Q. Yes.
 4 If we go in the third bullet down on this page, we
 5 can see there is a paragraph that says this:
 6 "Indicative Calorimeter tests on new K15 vs old have
 7 shown a quicker time to ignition and double the heat
 8 output for the newer product thus confirming initial
 9 suspicions in respect of Reaction to Fire."
 10 Do you see that there?
 11 A. Yes.
 12 Q. So by now you have done some calorimeter tests on new
 13 K15; is that right?
 14 A. Yes. I've done some -- on the new K15 at that time,
 15 I've done some testing at Exova, I believe.
 16 Q. And this information was being shared with all of the
 17 technical team in Kingspan, or just Philip Heath?
 18 A. This would have been shared with the technical meeting,
 19 which was the sort of director-level technical meeting,
 20 yeah.
 21 Q. And this information was known before the
 22 Kingspan Offsite tests; yes?
 23 A. Without seeing the reports, I wouldn't be able to see
 24 the exact times.
 25 Q. Okay.

197

1 A. I mean, it was always something I had a suspicion of, it
 2 was just I had more concrete evidence to present to my
 3 line managers.
 4 Q. If we go now to the monthly report for July 2008,
 5 {KIN00008848}, this is the technical services monthly
 6 report for July 2008. Would this have been written by
 7 you as well?
 8 A. No, this would have been done by Andrew Pack or
 9 Matthew Evans.
 10 Q. Right, okay. But would you have received this technical
 11 services department monthly report?
 12 A. I would have received a copy, yeah.
 13 Q. If we could go to page 2 {KIN00008848/2}, under the
 14 heading "Projects" at the bottom, we see --
 15 A. Ah, okay, yeah. I think I would write that section and
 16 send it to Andrew Pack, who would include that in
 17 his ... I think it's just an abbreviated form of what
 18 I sent to Phil, actually.
 19 Q. Yes, I see.
 20 It says there, immediately under "Projects":
 21 "A sample of the OP90 (fire retardant) Phenolic has
 22 been sent to the BRE for indicative calorimetry (sic)
 23 testing. We hope to find a lower calorific output and
 24 slower time to ignition. A product with these
 25 characteristics is required to maintain our position in

198

1 the high rise façade market (above 18metres)."
 2 Do you see that there?
 3 A. Yes.
 4 Q. So what you're hoping to do now is some calorimetry
 5 testing on a product with some form of fire retardant in
 6 it; that's correct, isn't it?
 7 A. Yes. I'm hoping there, because of the frustrations with
 8 getting EXAP rules out of the BRE, we're looking at
 9 a small-scale bench-size tests that we can use to prove
 10 that the new variant is of similar performance to the
 11 old technology.
 12 Q. Yes.
 13 As far as you were aware, was Malcolm Rochefort
 14 aware of this kind of information? So about the
 15 calorific output and time to ignition of new technology
 16 K15 and also what you were hoping to achieve with the
 17 fire retardant version?
 18 A. Yes.
 19 Q. What about any managers further up the hierarchy? Was
 20 anybody beyond Malcolm Rochefort aware, as far as you
 21 knew, of the different fire performance of the new
 22 technology K15?
 23 A. I wasn't given many chances to mix with the hierarchy
 24 above Malcolm and, like I say, I was accused of being
 25 negative, so I kind of sat on my hands a little bit when

199

1 I was around them. So I'm sure they were aware. I'm
 2 sure Malcolm would have voiced these opinions.
 3 Q. Were you ever a party to or told about any discussions
 4 taking place regarding stopping sales of K15 due to life
 5 safety issues, given how it was performing in fire, by
 6 this time?
 7 A. I think I remember a discussion with one of the Irish
 8 sales directors, I don't know if it was Alan or Ralph or
 9 somebody like that, I'm not sure, but I remember them
 10 coming at me and discussing this.
 11 Q. What did you discuss?
 12 A. I put my concerns forward, you know. They asked if it
 13 was right and I said yes.
 14 Q. If what was right and what were you saying yes to?
 15 A. If my opinion was that the fire performance had
 16 degraded.
 17 Q. Yes. And can you give us an idea when you had that
 18 discussion?
 19 A. I would be very -- you know, couldn't place that, to be
 20 honest. I remember having it, but the date ...
 21 Q. Now, I want to look at what the BBA position was at this
 22 time. You have said -- and, for the transcript, this is
 23 at paragraph 61 of your witness statement on page 28
 24 {KIN00022312/28} -- that to be generally accepted in
 25 industry by the big insurers, including the NHBC,

200

1 Zurich, et cetera, having a BBA certificate is
 2 essential. That's right, isn't it?
 3 A. Yes, definitely.
 4 Q. Was a BBA certificate also essential for working on
 5 sites used by the public, such as schools or hospitals,
 6 or in order to be considered for housing associations
 7 and local authority projects?
 8 A. I think a BBA certificate is a general green light of
 9 acceptability. I don't know what the specifics are with
 10 those types, but I would have thought it gives
 11 confidence to any buyer when they see that badge.
 12 Q. Once it was awarded, how did the BBA certificate
 13 influence the sales of K15?
 14 (Pause)
 15 A. I wouldn't know the sales figures, to be honest.
 16 Q. Okay.
 17 Now, you explain in your witness statement -- and
 18 we'll be asking him about this -- is it right that
 19 Gareth Mills had the primary role for obtaining the
 20 BBA certificate for K15? Is that right?
 21 A. He was the key contact at that time.
 22 Q. Yes.
 23 A. And if he had issues, he would come to myself or Tony,
 24 I think it was then.
 25 Q. Now, if we go to the first issue of the BBA certificate

201

1 on 27 October 2008, this is {BBA00000038}, here we have
 2 it, we can see from the bottom left-hand part of the
 3 page that it says: "Date of First issue:
 4 27 October 2008".
 5 Do you see that there?
 6 A. Yes.
 7 Q. Then starting with the first page and the section headed
 8 "Key factors assessed", we can see there it's got
 9 "Thermal performance", et cetera, and other things, and
 10 then we have "Behaviour in relation to fire", third
 11 heading down. Do you see that?
 12 A. Yes.
 13 Q. It says this:
 14 "The boards will not contribute to the development
 15 stages of a fire or present a smoke or toxic hazard (see
 16 section 7)."
 17 Do you see that there?
 18 A. Yes.
 19 Q. Now, leaving aside the smoke and toxic hazard for now,
 20 can you tell me what those words mean? What does it
 21 mean when it says "will not contribute to the
 22 development stages of a fire"?
 23 A. It's very ambiguous. It depends what test --
 24 Q. Well, quite.
 25 A. -- what situation. To be honest, I think it's

202

1 historical, it's a historical statement which might be
 2 in all the Kooltherm BBA certificates.
 3 Q. Do you understand that assertion to be based on some
 4 sort of actual test standard or test methodology or
 5 data?
 6 A. I think it's a historical statement that was -- probably
 7 pre-dates my involvement with the BBA.
 8 Q. Right.
 9 When you first read this certificate -- can you
 10 remember when that was?
 11 A. I would have been on a circulation for proofreading it,
 12 but our involvement was literally proofreading. We
 13 would give test evidence to the BBA, they would come
 14 into the factory, produce audits. They were the
 15 specialists, they were the ones that were writing the
 16 certificate. We just basically had to most of the time
 17 go along with what they were saying.
 18 Q. When you read it, did you believe that to be correct,
 19 given everything you knew by October 2008 about the way
 20 it performed in fire?
 21 A. I guess I don't know what the statement -- I don't know
 22 what the development stages of a fire are.
 23 Q. I see.
 24 A. In respect of that -- they've obviously got that out of
 25 somewhere, some test report where they've thought that

203

1 was acceptable to include, but I don't know where
 2 they've gleaned that from, to be honest.
 3 Q. Would you agree, looking at it now, that it sounds very
 4 much like a description of a non-combustible product,
 5 that's the impression it's trying to give?
 6 A. No, it's a thermoset material, it's not going to run,
 7 melt or drip, and they do char at the earlier stages of
 8 the fire and they do -- they have been shown to prevent
 9 further burning. So I believed it was a plausible
 10 statement, but, like I say, it was one of -- I will
 11 admit to -- around this time I was that bombarded by
 12 work, I might have not looked at one of these things
 13 properly.
 14 Q. I see.
 15 A. But I don't feel it's to do with a non-combustible
 16 insulant, I just think it's a very -- it's something
 17 that's come out of a test report and they've used it
 18 throughout all the Kooltherm certificates, I believe.
 19 Q. Let's look at section 7 now at the bottom of page 5
 20 {BBA00000038/5}, this is the section which deals in
 21 detail with K15's performance in relation to fire, if we
 22 just go and zoom in on that.
 23 At 7.1 there is a description of the system tested
 24 to BS 8414 in May 2005. Do you see that there?
 25 A. Yes.

204

1 Q. So we can see it's got 6-millimetre thick cement
2 particle boards, mechanically fixed, in the second line
3 there.
4 Then if we look at the end of the description of the
5 system tested to 8414, at the end of the third line from
6 the bottom, we can see it says this:
7 "Within the stated test time the temperature at the
8 level 2 thermocouples did not exceed 600°C, therefore
9 displaying limited fire spread away from the fire source
10 and that the product meets the criteria stated within
11 BRE 135."
12 Do you see that there?
13 A. Yes, I do.
14 Q. Now, would you agree, looking at this now, that that
15 simply can't be correct because a product can't meet the
16 criteria stated within BRE 135, can it?
17 A. Yeah, that's correct.
18 Q. It's a system test, so it's the whole system that met
19 the criteria, not that product; that's right, isn't it?
20 A. That's correct, yes.
21 Q. Can you help as to why that point wasn't raised with the
22 BBA prior to publication of this certificate, so that
23 that was clarified so as to be accurate?
24 A. The BBA allow us to check the BBA certificate. It's
25 a courtesy really they give us. They, you know, send

205

1 a pre-print draft and they say, "You've got 24 hours
2 before we publish this", I think. So, you know, we've
3 got to quickly look at it in that time and go back to
4 them and say, "Yeah, that's okay", and we'll quickly
5 make sure that a lot of the references are correct. And
6 to be honest, I'm so busy, I'll admit to probably not
7 looking at this properly in the time.
8 Q. But it could be corrected even after it's issued,
9 couldn't it? If it's inaccurate, you could speak to the
10 BBA and say, "Actually, we've realised that's simply not
11 correct". It doesn't all have to be before.
12 A. Yeah, in hindsight, maybe this was something that should
13 have been done, yes.
14 MS GRANGE: Mr Chairman, if I can be permitted to do so, and
15 if the witness is able to, I would just like to in
16 ten minutes finish this topic, if that's okay. We have
17 a lot to cover with this witness.
18 SIR MARTIN MOORE-BICK: How do you feel, Mr Meredith, can
19 you keep going for another ten minutes?
20 THE WITNESS: Just about, yes.
21 SIR MARTIN MOORE-BICK: It's been a long day, I know.
22 MS GRANGE: That's very kind, thank you.
23 Now, shortly after the release of the BBA
24 certificate for K15, Kingspan were contacted by
25 George Lee of the BBA about the wording in the

206

1 certificate. Do you recall that?
2 A. I have some recollection of that going on, yeah.
3 Q. I want to look at an email chain which was not copied to
4 you originally but was forwarded to you on 5 March 2008
5 by Philip Heath. If we can go to {KIN00009103} and look
6 at the bottom email in the second half of page 1. This
7 is George Lee on 24 December 2008 at 9.50, and he
8 writes:
9 "We have recently received a number of comments on
10 the K15 certificate in relation to the clarity of
11 wording used as part of this certificates fire section.
12 "In response to this we have a suggested amendment
13 to the text which we wish to make. This amendment we
14 will make at no cost to yourselves and as an improvement
15 to the certificate, which I hope you will agree will
16 improve how this certificate will read in the future."
17 He says, "The changes I propose are as follows", and
18 in the second bullet point under "Key factors assessed",
19 he says it's going to say:
20 "Behaviour in relation to fire - the boards are
21 classified as Class 'O'. The boards will not contribute
22 to the development stages of a fire. The product has
23 been tested to BS 8414-1 for a specific construction on
24 masonry walls."
25 Do you see that there?

207

1 A. Yes.
2 Q. So they're wanting to add in that the product has been
3 tested for a specific construction on masonry walls.
4 Did you consider there to be anything inaccurate in
5 that proposed amendment when you were made aware of it?
6 It was entirely accurate and appropriate, wasn't it?
7 (Pause)
8 A. So he's going to include, "The boards will not
9 contribute to the development stages of a fire", he is
10 keeping that in.
11 Q. Yes, but then he says, "The product has been tested to
12 BS 8414-1 for a specific construction on masonry walls".
13 A. It's a fair comment, they're -- yeah, that's correct.
14 Q. Yes, that sentence that they're adding is correct, isn't
15 it?
16 A. No issues with those.
17 Q. Going up the email chain, we can see Philip Heath
18 doesn't respond to Mr Lee until 5 March 2009 at 14.47.
19 So over ten weeks later, Mr Heath responds.
20 Can you help us as to why it might have taken
21 ten weeks to respond to that request by the BBA to amend
22 the certificate?
23 A. I know Phil was very busy. I know I complain about how
24 busy I was, but Phil was a lot busier, but then it says
25 here that Phil was saying, "Let the file gather dust".

208

1 I think he was in no rush to respond.
 2 Q. Yes, I'm going to come to that. But you can't think of
 3 a specific reason other than that he was busy as to why
 4 it would have taken him so long to respond to the BBA?
 5 A. I think -- was the previous email directed to Phil or
 6 was it Gareth that included --
 7 Q. I think it was directed to him. Ah, no, he writes to
 8 Mr Mills, you're right. He writes to Gareth Mills.
 9 A. I mean, Gareth could have sat with that for a while as
 10 well. I don't quite know what happened there, but ...
 11 Q. If we look at what he says, he says:
 12 "Good afternoon George,
 13 "Gareth Mills has brought to my attention your
 14 recent emails in relation to our BBA certificate for
 15 K15. Firstly, may we register our concern at the
 16 proposal to re-issue this certificate so soon after
 17 publication, when we have waited some considerable time
 18 for its issue.
 19 "Secondly, your request is receiving our attention,
 20 however, we are determining the implications to Kingspan
 21 of this speedy re-issue, as documentation has been
 22 published that refers to the current certificate and the
 23 wording therein. Therefore, there could be cost
 24 implications to Kingspan that we would have no option
 25 but to pass on the BBA, if we are in agreement to your

209

1 request. Once we have completed our audit to determine
 2 the implications for Kingspan Insulation, we will be
 3 back to you.
 4 "Regards
 5 "Philip."
 6 Do you see that there?
 7 A. Yes.
 8 Q. Then we can see that two minutes later, at the top of
 9 that page -- so he sends the email to George Lee at
 10 14.47, and two minutes later he sends an email to you,
 11 Andrew Pack, Gareth Mills:
 12 "Let the file gather dust guys.
 13 "Regards
 14 "Phil."
 15 What did you take that to mean?
 16 A. Well, he doesn't want us to worry about it. It's
 17 just -- you know, it's Gareth's action to move that
 18 forward, but let's just, you know, let the file gather
 19 dust, as he says, you know, there's no rushing back to
 20 George Lee on this one.
 21 Q. No.
 22 A. I mean, they used to take an incredible amount of time
 23 to produce a certificate and then -- you know, then they
 24 grabbed hold of this and wanted to do changes
 25 immediately. So they're quite frustrating to work with,

210

1 really, but then that's just ...
 2 Q. He doesn't say in his email, "Gareth, this one's for you
 3 to action; everyone else, you can let the file gather
 4 dust", does he? It's a general instruction, isn't it,
 5 and wouldn't you have taken it that way?
 6 A. Yeah. Well, he's suggesting that nobody work on it,
 7 isn't he?
 8 Q. Yes.
 9 A. Yeah.
 10 Q. Did you take that as a clear instruction from
 11 Philip Heath to stall?
 12 A. Yeah, certainly.
 13 Q. And did you stall?
 14 A. I was not directly involved in the BBA anyway, although
 15 it came sort of under my umbrella, you know, it was that
 16 important to the business that it was reported up above
 17 me all the time, so ...
 18 Q. Yes.
 19 You said in your witness statement, when you were
 20 asked questions about Kingspan employing any policy or
 21 strategy of delay between 2008 and 2016 in relation to
 22 K15, that there was no strategy or policy of delay.
 23 Now, looking at this now, would you agree that this
 24 is an example of where --
 25 A. Oh, this is an example of something I overlooked when

211

1 I answered my witness statement, yeah.
 2 Q. You agree with that?
 3 A. Yeah.
 4 Q. Why was Kingspan not prepared for the BBA to make it
 5 clear to the public that there were restrictions on the
 6 use of K15 over 18 metres?
 7 A. Because it could limit sales.
 8 Q. Yes. Philip Heath wanted the file to gather dust
 9 because it was in Kingspan's commercial interests to
 10 keep the then version of the BBA certificate in play,
 11 wasn't it?
 12 A. Yeah. Of course.
 13 Q. Did you find it concerning at the time that your
 14 superior, your line manager, was dismissing the concerns
 15 of a respected certification body in terms of
 16 fire safety and accuracy over fire safety? Were you
 17 concerned about that?
 18 A. I'd raised my concerns on numerous occasions about this
 19 kind of thing, so ... you know, you get to a point
 20 where, you know, you get embroiled in the culture of
 21 a business, and it just becomes second nature, I think.
 22 Q. How would you describe that culture at Kingspan?
 23 A. They were assertive, going after sales, you know, they
 24 were ... they had a lot of momentum. There's a lot of
 25 people there that were very devoted to the business.

212

1 They were -- you know, it was my first job. I thought 1
 2 they were a great company to work for. 2
 3 Q. Were they assertive at going after sales even in the 3
 4 face of life safety problems with their product? 4
 5 A. I mean, nobody could have seen what could have happened, 5
 6 really, you know. In hindsight, this is all terrible, 6
 7 but not that -- you know, then it was just more sales, 7
 8 I believe. 8
 9 Q. But to ask my question again, were they assertive at 9
 10 going after sales even though realising that there were 10
 11 life safety issues with their product? 11
 12 A. I think looking at the information and the evidence now, 12
 13 yes. 13
 14 SIR MARTIN MOORE-BICK: Well, do you recall any conversation 14
 15 with any of the senior managers which gave you the 15
 16 impression that they were aware of the dangers but 16
 17 didn't really mind about them? 17
 18 A. I remember having a conversation with one of the Irish 18
 19 directors who came to me with his concerns, but I had to 19
 20 sort of point him in the direction of my boss, because 20
 21 I was -- you know, like what happened with Offsite, 21
 22 you know, it wasn't my level to discuss that with him in 22
 23 a way. 23
 24 SIR MARTIN MOORE-BICK: No. 24
 25 A. I discussed the issues with my immediate superiors. 25

213

1 SIR MARTIN MOORE-BICK: Thank you.
 2 MS GRANGE: Who was that Irish director? Just one last
 3 question.
 4 A. I don't know if it was Ralph Mannion or Alan Scupham,
 5 I can't remember.
 6 MS GRANGE: Okay, thank you.
 7 Mr Chairman, thank you for that indulgence.
 8 SIR MARTIN MOORE-BICK: All right, Ms Grange, thank you.
 9 Well, I think we have done enough for today,
 10 Mr Meredith, so we will stop there. I'm going to have
 11 to ask you to come back for some more questions
 12 tomorrow, I'm afraid, but I think you were expecting
 13 that anyway.
 14 So we will resume at 10 o'clock, please, and again,
 15 please don't discuss your evidence or anything to do
 16 with it while you're away. All right?
 17 THE WITNESS: Okay.
 18 SIR MARTIN MOORE-BICK: Thank you very much.
 19 THE WITNESS: Thank you.
 20 (Pause)
 21 SIR MARTIN MOORE-BICK: Thank you very much. 10 o'clock
 22 tomorrow, please.
 23 (4.45 pm)
 24 (The hearing adjourned until 10 am
 25 on Tuesday, 24 November 2020)

214

INDEX	
MR IVOR JOHN MEREDITH (affirmed)1
Questions from COUNSEL TO THE INQUIRY1

215

216

A						
a1 (1) 26:1	actual (6) 77:24 78:25	130:7,14,25 131:19	also (44) 5:18 7:15,25	214:15	204:11	124:21
a2 (1) 26:1	113:14 128:12 183:10	132:6,12,20 133:17,18	12:9 15:10 22:21	anyway (5) 40:25 146:8	arrange (1) 48:25	authorised (1) 58:9
abbreviated (1) 198:17	203:4	142:19,23 144:19	23:17,22 26:14 36:8	169:13 211:14 214:13	arranged (1) 129:13	authority (1) 201:7
ability (1) 194:18	actually (45) 31:20	145:7 157:24 164:2,6	45:19 47:3 57:24	anywhere (2) 26:9	arranging (2) 38:6	auto (1) 154:12
able (18) 8:13 44:11	39:22 40:19 48:17	170:5 190:2,10	64:7,16 67:12 79:9,21	143:14	ask (2) 42:22	autonomy (2) 44:3
52:14 63:18 72:15	54:23 63:8 72:3,4,16	206:8,23 209:16	80:13 99:3,10 106:23	apart (2) 134:20 178:20	asap (2) 14:2 91:15	45:19
92:6 95:19 103:19	74:8 77:12 86:20	212:23 213:3,10	108:6 120:24 121:24	aperture (4) 76:11 81:7	ash (2) 151:6 154:11	availability (2) 184:10
107:25 119:15	88:14 90:11 92:2 93:2	afternoon (2) 2:4	122:13 136:25 139:1	148:15,17	aside (1) 202:19	185:7
132:7,13 133:19	97:8,8 98:1 112:5	209:12	142:10 152:15 156:15	apparent (5) 90:10	ask (31) 1:25,25 2:6,24	available (12) 6:14
142:23 166:15 172:21	115:22,25 116:2,24	afterwards (1) 61:21	164:11 168:25	126:18 132:9	20:2 23:8 25:18 33:13	29:19,21 48:17
197:23 206:15	135:8 137:21 143:8	again (24) 6:7 53:7	173:10,11 174:4	159:20,22	42:17 43:17 52:23	69:12,17,17 82:9,23
above (50) 15:6 16:20	147:6 148:7 150:8	56:16 67:5 76:11 93:9	180:19,21 183:13	appear (3) 87:6 104:5	54:1 57:2 61:3 68:24	99:4 160:6 172:18
17:23,24 22:22 23:6,8	152:18 154:10,14	98:2 103:20 113:1,12	184:5 185:20 186:22	196:22	74:19 75:24 81:21	awaiting (2) 108:11
24:14,25 28:8,15,18	155:1,6 158:4,6,17	120:8 140:6	199:16 201:4	appeared (1) 75:6	84:19 85:20 86:1 89:5	184:17
29:1,15 30:5,5,15	165:9 173:15 177:13	150:8,8,10 165:2	alternative (6) 9:20	appears (5) 11:6 17:5	124:10 171:8 181:18	awarded (2) 120:23
31:19 46:12 58:8,19	188:21 189:8 198:18	167:14 177:19 186:22	10:2,18,22 13:3 15:23	124:17,19 170:21	187:18 189:12,16	201:12
69:24 75:25 76:10	206:10	187:16 191:10 193:23	although (14) 5:3 39:8	applicable (1) 111:25	194:4 213:9 214:11	aware (48) 11:15 13:10
97:17,20 100:5 103:12	ad (3) 24:7,13,19	213:9 214:14	51:4 56:11 59:3 63:11	application (23) 3:8	asked (21) 8:14	18:4 25:19,22 32:2
105:11 106:5	adam (2) 109:9,12	against (4) 44:8,14	100:8 107:21 127:23	12:10,19,25 17:16,21	10:7,17,21 12:3,13	34:8 42:10 67:15,20
117:12,14,21 118:8	adb (3) 24:9 25:22	93:25 123:8	155:2,24 160:9 163:19	48:22 59:1 72:25 74:4	21:19 42:19 44:6 56:5	73:9 80:1 82:17,24
122:8,16,21 135:8	96:25	age (1) 126:14	211:14	92:24 99:21 100:21	76:22 84:17 88:15	84:12 85:1 89:16
136:11 138:15,21,23	add (6) 63:4 89:23	agent (6) 15:15,17,18	aluminium (7) 67:11	104:21 109:5 118:19	89:14 90:19 109:8	100:18,20 107:6,7
141:25 145:19 180:3	156:15 166:11,19	88:12 155:20,22	81:2 141:13 145:4	119:15,18 129:10,25	111:18 153:5 171:20	110:1 111:5 112:25
190:22 192:4 199:1,24	208:2	agents (2) 88:13 152:20	151:25 168:4 183:11	130:23 132:8,13	200:12 211:20	118:6 125:17 127:10
211:16	added (5) 152:20,21	ago (5) 33:5 75:9 165:7	always (19) 10:17	applications (1) 92:10	asking (8) 91:22 92:24	137:21,24 152:24
absolutely (2) 36:17	166:23 167:2 172:24	180:7,11	50:2,9 56:11,18 107:1	applied (5) 108:1 115:8	99:20 105:22 141:17	154:3,15 160:15
134:3	addendum (2) 117:3	agree (58) 12:6 27:18	112:18,19,22	141:6 181:2 190:5	172:5 178:25 201:18	166:4,25 171:15,24
accept (7) 39:24	136:8	39:3,17 44:4 50:8	158:11,11,15 160:9	apply (6) 39:21 70:15	asks (1) 106:18	172:2 182:6 183:23
70:10,20 100:17	adding (2) 167:3 208:14	51:14 53:7,8 54:17	165:19 179:20 183:23	93:1,25 112:11 139:24	asms (1) 99:3	190:16 194:2
112:13 118:2 133:25	addition (1) 184:13	55:16 56:16 62:17	184:7 189:3 198:1	applying (1) 8:24	aspects (1) 39:4	199:13,14,20 200:1
acceptability (4) 16:20	additional (6) 30:15	64:13,17,19 74:21,23	ambiguous (4) 122:22	appointed (1) 43:21	assembly (1) 174:5	208:5 213:16
82:2 134:23 201:9	89:21 90:2,4 117:3	85:3 86:19 91:19	123:1,14 202:23	appreciate (4) 8:1 37:3	assert (1) 143:1	away (7) 46:16 61:10
acceptable (13) 59:3,5	122:1	98:13,18,19 104:4	amend (1) 208:21	119:10 164:25	assertion (1) 203:3	151:6,9 163:8 205:9
79:22 108:12 117:20	additive (2) 172:14	110:25 111:3,16 120:8	amendment (4) 25:11	appreciated (1) 1:23	assertive (3) 212:23	214:16
122:8,16,21 133:21	184:10	121:1 122:13 123:21	207:12,13 208:5	approach (3) 55:14 64:8	213:3,9	
138:14,21 141:25	address (3) 8:12 46:15	127:5,15 135:2	american (1) 14:25	83:17	assessed (16) 25:13	
204:1	121:17	136:5,19,23 138:20	amount (2) 35:24	approached (2) 44:25	97:2,6,9,13 102:5	
acceptance (1) 120:1	addressed (1) 125:10	142:4,10 143:4	210:22	45:16	120:24 121:2,4,7	
accepted (11)	addresses (1) 80:13	144:12,14 146:3	analysis (1) 181:14	approaches (1) 44:12	122:7,14,15,22 202:8	
28:8,14,18,22 29:2,4	adequate (1) 51:24	148:24 151:21 153:1	andrew (7) 53:17 60:17	appropriate (8) 10:24	207:18	
58:19 77:5 118:12	adhere (1) 101:15	155:10 186:5,9	68:4 106:8 198:8,16	42:14 46:5 48:1	assessing (1) 123:7	
136:2 200:24	adjoined (1) 214:24	192:12,25 204:3	210:11	118:16 182:11 194:15	assessment (17)	
accordance (16) 95:11	adjournment (1) 114:19	205:14 207:15 211:23	andy (1) 22:21	208:6	91:14,22 99:3,9,11,12	
97:2,6,11,13	admit (2) 204:11 206:6	212:2	angle (1) 101:17	appropriately (1)	100:5 102:9,14 103:5	
102:5,9,14 120:24	adopted (6) 25:14	agreed (9) 46:17 55:14	angling (2) 84:6 176:16	112:24	109:4 112:1,15,22,24	
121:3,4 122:7,9,15,24	28:10 37:9 101:20	59:24 64:8 118:23	animated (1) 152:23	approval (3) 30:14	122:24 123:15	
141:25	174:5 184:24	125:2 147:15,20 173:5	another (9) 94:6	133:9 192:15	assessments (1) 93:25	
according (1) 25:22	adrian (4) 56:1 73:19	agreeing (1) 58:25	115:3,5,8 168:3	approve (1) 72:11	assist (1) 14:3	
accreditation (1)	76:19 125:5	agreement (3) 39:24	173:22 178:16 179:23	approved (15) 9:16,22	assistance (1) 108:11	
105:15	advantage (1) 107:6	53:3 209:25	206:19	49:5 96:19,21 97:18	assisted (1) 185:5	
accuracy (1) 212:16	advantageous (2)	102:3 103:11 120:24	answer (10) 70:18	121:2,6,7,25 123:1,2	association (1) 44:18	
accurate (8) 27:7 46:20	115:10,16	134:24 171:1,1 187:25	89:19 118:12 133:24	approximately (1)	associations (1) 201:6	
51:18 67:24,25 75:3	advert (1) 3:6	191:1,14	210:11	144:21	attached (6) 101:12,22	
205:23 208:6	advertisement (1) 3:12	aidan (2) 189:18 192:9	answered (2) 194:10	april (7) 100:25	105:12 106:1 109:18	
accused (2) 186:22	advice (16) 20:22 25:12	alan (3) 94:13 200:8	212:1	168:3,9,25 169:4	170:2	
199:24	46:4 48:1 53:13,18	214:4	answering (1) 185:11	196:19,23	attempt (2) 111:13	
achieve (12) 16:20	54:4,8 55:7,8,12,16,20	allegiance (1) 134:18	answers (9) 8:15	architect (1) 48:2	131:22	
58:18 68:23 91:4	65:3,4 104:11	allow (4) 73:2 132:14	27:14,18 133:6 136:15	architects (2) 10:16	attend (2) 115:22	
102:17 103:18 117:18	advise (1) 138:6	155:21 205:24	153:5 186:1,20 192:13	26:24	146:19	
120:9 140:11 155:8	advised (1) 129:14	allowed (4) 61:25	anthony (2) 26:23 133:1	archive (1) 151:11	attendance (1) 131:22	
164:16 199:16	adviser (3) 3:7 4:8,21	152:8,9 182:25	anybody (6) 2:21 95:12	area (10) 27:1 52:18	attended (4) 116:2,5	
achieved (6) 21:6 40:14	affect (1) 184:14	allowing (2) 77:15 152:7	166:4 177:14,14	54:9 56:7,11 71:25	132:22 153:10	
100:9 140:23 141:6	affected (1) 104:10	allows (1) 62:12	199:20	77:15 81:10 95:24	attendees (2) 60:25	
183:25	affirmed (2) 1:11 215:3	alluded (1) 128:12	anyone (14) 26:21,24	120:4	61:9	
acquired (2) 33:16	afraid (6) 33:4 104:2	almost (4) 4:3 102:13	57:3 104:3 111:5	areas (1) 25:13	attending (2) 1:21	
37:21	112:7,25 166:3 214:12	162:6,13	114:10 156:5 160:15	arent (2) 62:19 73:8	60:12	
acquisition (1) 34:10	after (49) 7:2 28:7 36:2	alone (1) 132:6	161:5 165:13 167:15	argument (1) 166:20	attention (3) 25:1	
across (4) 10:25 68:8	39:12,14 41:4 42:8	along (5) 6:18 86:7	171:23 173:8 185:25	around (15) 3:16	209:13,19	
76:1,9	48:20 49:6 60:24,25	101:23 161:2 203:17	anything (12) 32:25	10:10,14 14:7 21:14	attributes (1) 38:25	
action (2) 210:17 211:3	61:19 71:12 72:22	82:4 86:24 88:20	57:4,5 72:14 114:11	33:17 46:22 50:23	au (2) 74:24 144:24	
activity (5) 16:10,13	73:15 89:8,10 95:6	129:8,22 166:1 170:17	137:8 171:4 182:25	124:18 130:19 152:23	audit (1) 210:1	
20:1 116:10,15	102:13 120:13	171:17 184:21	189:4 191:16 208:4	159:2 162:17 200:1	audits (1) 203:14	
	127:2,21 129:11,18				august (3) 4:3,15	
						B
						b (20) 9:16,22 16:19
						20:17 21:5 24:7,13,19
						41:24 74:11 81:13
						96:19,21 97:18 102:4
						103:12 187:6
						188:4,9,13
						back (59) 12:1 20:1
						24:8 29:6,16 31:15
						36:13,21 40:2 45:18
						49:21,22 52:8 57:1
						61:18 69:1 76:19
						79:25 81:18 84:18
						86:25 99:9 100:2
						101:17 105:17 106:8
						107:20 108:4 111:17
						113:3 114:2,12 115:21
						124:4 127:24 133:19
						142:23 143:20
						150:9,10 151:13 154:8
						155:6 160:12 166:9
						167:14 176:21 186:2
						187:17 188:16 194:3,4
						195:10,21 196:1 206:3
						210:3,19 214:11
						background (2) 2:25
						105:7
						bad (6) 97:12 100:7,22
						169:17 170:15 192:20
						badge (1) 201:11
						badly (4) 62:8 117:25
						121:9 156:21
						baker (7) 110:4,25
						124:7 131:21 147:4
						160:10 161:7
						bar (1) 76:1
						barrier (24) 44:20 65:10
						76:2,3,6 78:4 79:17

80:6 81:23	behaviour (2) 202:10	199:20	box (5) 26:7 72:14	breaking (3) 77:6 78:10	184:6 204:9	cautious (1) 191:19
82:5,7,12,13,17,20,22	207:20	big (5) 47:9 55:20 131:7	117:19 127:24 165:20	81:7	burnt (1) 151:14	cavities (1) 24:15
101:16 104:1,9 134:19	behind (12) 30:2,20	148:18 200:25	boxed (1) 193:14	breaks (3) 2:3,5 25:2	busier (1) 208:24	cavity (19) 78:4 81:4,23
148:10 150:13 151:15	91:1 104:3 115:19	bigger (1) 129:10	boxes (1) 107:17	bres (1) 116:4	business (20) 5:8 6:11	82:5,7,12,13,17,20,22
162:16	117:15 120:14,17	bit (24) 7:6 12:25 20:3	br (58) 9:3 29:6,8,11,17	brick (4) 13:4 44:8,14	7:10 17:15 23:1 37:21	97:19 98:16 102:5
barriers (35) 25:9 28:10	121:19 129:13,15,17	31:15,23 40:3 54:20	52:11 58:1 62:16,19	102:24	44:5 47:1 56:13,19	103:13,22 104:7 114:2
29:7,9 30:12,16	being (72) 4:22 8:14	60:8 69:11 117:4	84:22,23 89:5,16,21	brilliant (1) 167:1	115:16 128:15 169:21	151:15 174:5
31:16,19,21 46:15	11:15 16:6 18:3 20:18	120:19 135:14,16	90:2,9,11 91:20,23	bring (3) 38:5 44:19	171:12 172:10 175:1,2	ccd (1) 13:18
65:1,6,7,9,11 70:1	23:13	144:3 161:14 162:11	92:9,15,23	118:17	211:16 212:21,25	ce (1) 40:10
77:17 79:21 81:4	28:20,21,21,22,24	165:25 166:3,20	93:21,23,25 94:21	british (5) 40:21 41:7	busy (7) 44:5 54:23	cellular (1) 117:15
97:19 98:16 101:8,20	29:2,4,15 37:19 39:16	175:16 177:2 186:2	95:6,8,14 97:11,13	79:18 140:22 141:3	138:8 206:6 208:23,24	celotex (3) 10:20
103:13,22 104:7,12,14	41:4 44:11 45:2,4,6,9	187:25 199:25	99:12,16 101:20 103:4	broad (1) 92:10	209:3	120:2,10
148:1,5,12	51:20 52:17 58:22	black (7) 76:1 78:14,16	107:21 108:22 111:8	brought (2) 153:4	butted (1) 101:18	cement (25)
152:8,19,20 163:3	63:18 64:9 66:25	83:5 116:19 117:8	112:3,11,14,23	209:13	buy (1) 69:18	67:9,15,17,23 68:5
based (13) 26:14 37:16	73:24 76:20 83:21	191:19	115:2,6,14 120:25	bs (65) 17:1 20:19	buyer (1) 201:11	69:6 73:24
39:25 65:1 68:10	84:17 86:16 88:16,22	blank (1) 162:5	121:3 122:15,16,25	21:11,13,20,25	buying (1) 15:22	74:9,10,14,22,23
90:23 91:25 111:24	89:3 98:25 101:13	blanks (1) 86:2	123:7,11 129:17,19	23:14,17 24:18 25:25		75:20,20 76:20,21
115:14 125:3 142:11	115:25 119:20 127:5	block (3) 67:12 96:6	138:14 140:12 142:6	26:4 29:18 30:4,14,22		81:6,19 110:17
186:18 203:3	128:1 132:7 135:12	154:12	150:16	31:20 32:2,6,6,9	C	113:8,17 136:7,22
basic (1) 25:4	143:5,6 148:25	blow (3) 60:8 65:25	br135 (1) 110:13	41:12,12 42:22 43:14	c (7) 21:6 41:25 43:17	137:3 205:1
basically (11) 11:3 40:1	152:17,20,21 157:12	80:11	bracket (1) 81:2	45:1 50:15 57:21 64:4	155:9 187:6 188:4,10	centres (1) 67:11
71:21 79:13 82:11	158:2,13 159:3,4	blowing (7) 15:15,17,17	bre (138) 20:17,22	69:22 73:9,22	calcium (2) 101:17	certain (6) 25:25 35:24
93:8 128:1 133:24	165:19 172:14,15	88:12,13 155:19,22	24:23,23 26:23	80:17,22 85:2,10	188:13	44:9,15 77:25 124:19
149:9 184:17 203:16	177:13 184:3,15	blown (6) 15:11,14	30:2,8,21 32:4 44:10	94:24 97:5 98:25	call (1) 12:4	certificate (23) 90:11
basis (3) 29:4 142:25	185:16 186:5,12,22	16:2,6,22 17:12	48:20 49:2,12	100:14 102:8 103:19	called (12) 9:8 22:20	92:3
145:24	191:19 193:10 194:10	blue (1) 78:17	50:2,8,12,19 53:2	106:2 108:19 109:18	33:21 44:18 101:2,5	201:1,4,8,12,20,25
batch (13) 176:11	195:18 197:16 199:24	board (47) 11:12 21:24	57:23 58:21,23 59:4,7	110:13 120:23 122:7	105:2 109:13 182:23	203:9,16 205:22,24
182:10,12 183:17	belief (2) 74:6 137:9	22:14 30:2,20 31:3	60:6,11 61:21,24 65:1	125:13,22 128:19	187:6 188:4,6	206:24 207:1,10,15,16
188:9,9,10,12,13	believe (45) 9:8	40:21,22,23 41:7 66:3	68:18,24 70:14 71:17	129:10,12 130:14	calls (1) 22:12	208:22 209:14,16,22
190:11 192:20 195:1	10:10,13 19:11 25:12	67:17 68:5,25	72:8,9,12,19 75:4	132:3 136:21 138:13	calorific (2) 198:23	210:23 212:10
196:4	34:19 35:2,20 36:4	69:12,16 71:7,10	78:15,18,21,22,25	139:1 141:3 144:10	199:15	certificates (5) 40:21
batches (2) 36:9 83:19	43:16,20 58:16 59:8,9	73:24	80:18 83:8,13 84:4,9	146:1 182:5 190:15	calorimeter (2)	84:18 203:2 204:18
battle (1) 176:18	67:2 68:6 75:9 83:22	74:9,10,14,22,23	91:8,15 92:5 93:22	204:24 207:23 208:12	197:6,12	207:11
battled (1) 179:11	84:6 85:6 87:17,24	75:20,20 76:20,21	94:19 95:9,25 96:1,14	bs8414 (1) 184:22	calorimetry (1) 199:4	certification (28) 7:11
bba (28) 39:23 40:3,25	88:3 95:9 99:15,19,19	77:2 81:6,20 93:5,11	97:2,5,6	buck (1) 157:21	calorimetry (1) 199:4	38:11 39:6,11,19
53:15 84:18 200:21	100:24 109:1 119:21	110:17 113:8,17	99:5,6,13,14,16	buckled (1) 152:6	198:22	40:1,3,6,18,24
201:1,4,8,12,20,25	123:6 131:3,22 143:13	120:21 129:14,15	101:22	buckling (1) 70:1	came (16) 10:25 19:15	41:3,5,8 53:16 62:22
203:2,7,13	152:16,16 153:10	130:25 136:7,22 137:4	102:6,8,9,15,19,22,23,24	budget (1) 133:11	39:19 40:25 85:4	68:21 83:16 84:3
205:22,24,24	155:3 163:17 184:10	140:18 141:1 142:7	105:21,25 108:11,22	build (5) 60:17 69:10	103:2 112:2 124:25	120:23 121:25 131:13
206:10,23,25 208:21	192:13 197:15 203:18	164:20	109:2,7,13 110:5	85:13 126:4 131:24	158:4,19 159:9 160:11	132:2 133:9 135:25
209:4,14,25 211:14	204:18 213:8	boards (14) 63:16	111:1,6,17,19	building (22) 3:5,19	166:14 185:8 211:15	161:11,13 194:23
212:4,10	believed (8) 27:21	67:10,16,23 68:1,15	112:5,15 115:6 119:7	9:15 16:21 23:12	213:19	212:15
bba00000038 (1) 202:1	112:8 147:16,21	69:6 75:14,16 202:14	120:23	24:13 81:14 97:5	cannot (3) 84:22 107:1	cetera (8) 86:9 91:2,3
bba000000385 (1)	175:14 185:4,17 204:9	205:2 207:20,21 208:8	121:3,6,8,10,24 122:8	102:8 105:14 112:9	181:2	185:8 191:24 195:1
204:20	bells (1) 116:22	bodies (2) 136:1 161:13	124:5 125:10 127:4	120:22 122:10	cant (24) 16:7 33:4	201:1 202:9
bearing (2) 71:14 141:5	below (18) 43:17 67:3	body (5) 112:15 169:14	129:14,20	129:13,15 136:11	40:16 72:4,21	chain (16) 13:14,16,20
became (5) 90:10	76:11,11 78:5 87:21	187:16 193:9 212:15	130:2,3,11,16	140:20 141:6 142:1	75:10,21 88:13 101:7	61:18 77:24 105:16
126:18 132:1,19	99:2 120:19 121:23	bold (2) 4:7 67:4	131:6,21,22	154:22,23 194:16	104:2 133:2 142:5	169:6 171:10
151:21	126:4 140:23,25	bombarded (1) 204:11	132:1,5,10 133:6	buildings (16) 9:24	156:23 157:2 176:8	179:23,25 183:19
become (9) 8:16 9:13	141:2,11 147:2 156:11	booked (2) 182:6	134:2,9 141:23	12:17 13:3 24:1 28:24	177:3,4,21 179:21	186:14 189:10 195:21
80:1 133:4 152:9	175:22 192:13	190:16	147:5,16,20 148:22	96:22,25 101:25	183:3 205:15,15 209:2	207:3 208:17
154:19,24 156:20	benchmark (2) 17:19	boss (5) 60:23 61:7	149:13 150:22	117:12 135:8 139:25	214:5	chains (1) 92:7
191:24	20:14	116:15 133:10 213:20	159:12,16 160:3,15	141:24 143:2,12,15,17	caption (1) 162:21	chairman (7) 1:8 55:22
becomes (1) 212:21	benchsize (1) 199:9	both (6) 14:2 116:19	161:6 184:22 187:2,10	buildup (8) 50:3,9,12	carbonate (1) 188:13	56:22 114:4 167:7
becoming (1) 194:2	benefit (5) 73:1 135:15	126:21 168:13 183:24	188:7,11 189:25 190:5	68:19 108:7 111:1,13	cards (1) 5:8	206:14 214:7
before (38) 2:21 8:20	166:19 192:11 193:10	184:1	193:12 198:22 199:8	118:7	career (1) 135:15	chamber (1) 30:6
13:8,11 19:21 36:22	berhad (1) 67:18	bottom (37) 4:14	205:11,16	buildups (2) 131:10	careful (4) 84:10	chance (10) 19:4 20:18
37:20 40:15,20 41:11	bespoke (2) 11:1 53:18	13:19,20 18:13 21:18	bre00002511 (1) 65:17	144:11	191:1,14 192:3	147:16,21 148:11,23
48:11 52:22 55:22	best (7) 122:22	39:17 63:23 65:21	bre000025116 (2) 65:22	built (3) 50:1 64:20	carefully (2) 83:13	151:16 180:22 187:5
60:7 63:24 72:22 80:9	147:16,21 148:23	75:17 81:8 83:2 99:10	83:2	182:8	192:14	196:8
86:4 99:10 110:22	172:21 189:9 195:24	106:6 109:10 112 113:5	bre00003278 (1) 77:21	bullet (5) 11:20	carried (8) 21:13,20	chances (1) 199:23
115:3 124:4 125:8	better (14) 19:4 28:1	145:11 150:11 153:15	bre00020074 (1) 109:6	138:10,12 197:4	22:1,1 50:16 58:22	change (14) 5:4 18:19
128:16 129:3 132:20	32:23,25 35:13 128:2	159:13 162:22 166:1	bre000200741 (1) 110:6	207:18	125:25 126:7	19:12,15 36:25 39:14
152:1,3 157:5 163:16	148:11 155:4 165:21	169:8,9 180:1 181:25	bre000200742 (1)	burd (1) 26:23	carry (8) 8:20 57:16	41:1,4 90:17 112:17
165:17 166:24 174:8	180:7 181:1,11	186:16 188:2 189:20	109:14	burn (11) 32:19,20	59:17 84:9 114:21	124:10,16 183:9
184:18 185:2 197:21	196:8,16	192:4,5,7 198:14	breached (2) 150:13	63:10 81:10 130:20	155:17 163:23 176:8	186:23
206:2,11	between (18) 4:15,20	202:2 204:19 205:6	162:17	159:23 180:25 182:14	carrying (1) 58:17	changed (3) 49:19
began (1) 70:18	5:4 41:24 43:14 46:1	207:6	breaching (1) 62:21	184:4 190:3,9	cassette (3) 145:4	128:11 147:1
beginning (3) 60:20	58:12 64:6 74:25	bottomed (2) 193:15	break (15) 2:2 55:23	burned (2) 156:14 157:8	183:12,12	changeover (2) 36:3
96:18 113:5	77:19,21 84:3 89:15	195:13	56:23 57:1,13 69:24	burning (13) 17:19 20:5	catchall (1) 71:23	39:13
begins (3) 78:14 103:9	114:1 118:23 164:22	bought (1) 19:17	77:7 81:15 114:4,8	21:2 41:20 150:21	caused (4) 153:22	changes (7) 18:10,14,24
153:16	179:11 211:21	bounds (1) 144:9	115:3 167:8,12,13,21	151:17 152:12	155:13 179:10 196:2	36:21 150:5 207:17
behaved (1) 87:10	beyond (2) 53:14	bowers (1) 22:21	breakdown (1) 23:23	153:3,23 154:5 170:4	causing (2) 145:23	210:24
					152:14	

changing (3) 143:7 176:19 187:10	140:19 156:16 166:9,16,18 207:21	114:12 126:15 129:2 133:19 150:9 151:13	concerned (20) 75:2 84:9 107:24	208:3,12 constructions (2) 139:11,12	188:22 correspondence (2) 109:7 181:19	134:1 135:1,4 146:1,3 181:14 203:5
chap (2) 106:14 147:24	classed (2) 23:12 24:25	161:14 166:9 167:14	157:7,15,15,17 158:7	contact (5) 24:21 63:8,13 136:9 201:21	corresponding (1) 125:14	datasheet (2) 75:4,8
char (6) 23:20,21 24:21 27:10 154:24 204:7	classification (45) 20:8 26:1 40:15 41:20 51:4	183:3 189:4 196:1 201:23 203:13 204:17	170:6 171:5,6 174:17,25 178:12,17	contacted (2) 40:24 206:24	coshh (2) 113:5,7	date (19) 2:14 11:9,17 13:9 36:24 86:8 90:10
characteristics (2) 127:25 198:25	58:1 89:5,17,21 90:2,7,15,23,24	209:2 214:11	182:3,20 190:13 193:18 212:17	content (4) 82:18 88:25 99:5 124:6	cost (7) 14:7 48:24 109:23 122:1 173:9	92:1 111:17 126:12 131:5 140:6 146:14
check (11) 5:1 51:21 66:17 83:13,14,20	91:20,24 92:23 93:21,24 95:6	comfortable (3) 1:13 128:17 133:13	concerning (2) 171:2 212:13	contents (3) 2:18 51:10 52:2	207:14 209:23	147:1 188:8,16 193:23
90:1 115:25 116:6 195:6 205:24	99:17,22,23 100:18,20,23 103:4	comfortably (1) 173:19 coming (5) 2:21 44:7,14 123:4 200:10	concerns (20) 107:20 127:18 128:21	continually (1) 135:24	costing (1) 91:16	200:20 202:3
checking (5) 49:25 50:20,23 51:4 83:24	108:23 109:2,8,17,21 110:10,14 111:8,19	comment (11) 23:9 28:4 83:16 174:10	158:1,18,19 165:7,8,11 170:22	continuation (1) 184:6	costs (2) 132:6 145:16	dated (8) 2:12 57:24 65:20 85:24 113:2
checks (1) 84:10	115:2,6,7,12 123:7 125:14 126:7 134:15	176:25 177:1,2,20 191:5,11 208:13	179:16 189:13,16 190:1 191:1,14 200:12	continue (6) 103:12 119:25 127:20 180:25	couldnt (8) 71:17 133:7,8,13,23 135:1	125:11 145:7 189:19
chemical (3) 23:23 35:10 184:16	155:8 classifications (1) 41:24	comments (7) 31:15 142:10 159:12,16,20	212:14,18 213:19 concluded (2) 125:24 127:6	182:14 190:9 continued (3) 143:1 159:22 190:3	200:19 206:9	dates (1) 195:11
chemistry (2) 166:25 167:5	classified (4) 25:23 26:1 95:10 207:21	160:4 207:9 commercial (4) 64:6,16 107:6 212:9	concrete (1) 198:2 conducted (2) 132:10,12	continues (1) 179:25 continuing (1) 128:10	course (5) 55:25 186:13 194:9 195:20 212:12	david (10) 60:6 63:6,12,20,21 77:22
chilvers (2) 22:20,21	classify (1) 92:9	commissioned (1) 109:17	confidence (1) 201:11 confident (3) 30:10 111:18 175:25	continuity (2) 101:19 186:20	courtesy (1) 205:25	93:13 129:24 130:18
chimney (3) 77:16 113:24 152:6	claw (1) 142:23	commit (3) 132:1,7,11 common (1) 127:9	confidential (6) 78:15,18,20 79:25 80:2 145:9	contractor (1) 47:24 contrary (1) 85:12	cover (4) 44:24 52:18,19 206:17	147:25
choice (5) 81:12 120:7 176:1 177:17,23	clay (3) 139:15,19 140:4 clear (24) 2:8 8:2 36:17	communicated (1) 171:13	configuration (3) 30:9 59:2 138:24	contrast (1) 164:14 contribute (6) 79:4 153:6 202:14,21	create (3) 15:15 75:6 154:13	davies (8) 13:21 15:7 47:6,7 169:11 174:1
choose (2) 71:4 123:1	54:24 55:9,11,15 80:22 85:17 88:21	company (14) 9:8 19:17 33:16,22 34:10	confirmed (1) 88:21 confirming (2) 38:8 197:8	207:21 208:9 control (4) 36:12 38:22,24 50:21	created (3) 8:12 73:15 193:10	180:4,18
chosen (1) 74:14	95:5 98:14 104:17 110:1 115:7 119:11	68:13,14 78:9 94:9 101:2 105:1 169:4	conform (2) 96:24 102:2	conversations (3) 93:11 158:6,10	credible (1) 25:12	day (12) 15:7 60:7 77:2 116:5,18 138:9,9
circulate (1) 51:19	130:10 134:3 142:11 143:22 151:21 195:18	187:13 213:2 comparable (2) 31:13 164:25	conformed (3) 50:1,5,11 confused (2) 31:24 147:9	conversation (6) 59:10,12 112:7 131:3 213:14,18	crib (2) 151:17 154:13 cribs (1) 163:24	177:7 178:2 186:16
circulated (3) 51:9,18 55:1	client (1) 105:25 clipboards (1) 50:23	compared (1) 181:12 competitor (1) 104:1	confirmation (2) 184:9,17	38:10 40:6 123:23 180:5 184:23	creation (3) 15:15 75:6 154:13	190:22 206:21
circulation (3) 27:14 138:3 203:11	clearer (2) 128:25 196:2 clearly (6) 2:10 62:2 151:12 155:12 157:7 186:8	competitors (2) 107:8 194:2	confirmed (1) 88:21 confirming (2) 38:8 197:8	conform (2) 96:24 102:2	created (3) 8:12 73:15 193:10	daytoday (1) 63:12
clad (2) 81:5 140:4	close (1) 26:9 closely (2) 101:18 187:2	complain (1) 208:23 complained (3) 121:10,24 124:6	conform (2) 96:24 102:2	control (4) 36:12 38:22,24 50:21	credibility (1) 25:12	deal (3) 8:11 183:1 185:20
cladding (114) 11:23 12:5,7,10,16,19,24	closer (1) 81:16 closeup (2) 75:13 164:5	complaint (1) 124:4 complete (3) 110:18 111:2,3	conformed (3) 50:1,5,11 confused (2) 31:24 147:9	conversations (3) 93:11 158:6,10	crib (2) 151:17 154:13 cribs (1) 163:24	dealing (5) 10:16 46:10 124:15 133:2 181:19
13:2 21:13 22:9,15 44:19,25 45:11,14,15	code (1) 66:1 collate (1) 106:19	completed (9) 13:8 38:12 40:7,19 73:16	conjunction (4) 17:1 48:23 77:17 101:13	copied (5) 13:23 22:25 180:19 185:2 207:3	criteria (24) 24:18 25:25 30:3 32:5	deals (1) 204:20
47:25 48:17 49:3,6 59:5,6 64:3,10,14	colleague (2) 8:13 156:9	109:19 182:5 190:15 210:1	consider (4) 10:23 12:15 126:23 208:4	copies (1) 107:8 copock (5) 37:24 47:7 169:10 174:1 195:23	52:6,11 62:17,19 94:25 95:14 107:21	dear (1) 109:13
65:2,16 67:7,21 68:2 69:8,13,14,20	collected (4) 45:24 46:1 59:18 192:10	completely (2) 8:2 52:16	considerable (3) 5:20 190:3 209:17	copied (5) 13:23 22:25 180:19 185:2 207:3	112:14,16,23 113:25 123:8 138:14 140:12	debbie (2) 110:22 125:10
70:2,3,7,11,21 71:13,22 73:25	column (9) 37:22 86:10,12,14 87:6,13	completion (2) 30:13 128:12	considerably (4) 137:8 181:1,11 191:20	control (4) 36:12 38:22,24 50:21	141:22 142:6 150:16 205:10,16,19	debris (1) 62:22
74:2,7,8,8,12,16 75:14,16 77:3,8,10,13	colleagues (2) 8:13 156:9	complex (2) 71:25 183:7	consideration (1) 165:13	conversations (3) 93:11 158:6,10	criticised (4) 135:11 157:12 159:3,4	decide (1) 70:3
79:8 81:3,9 82:14 89:17 91:1,2 93:5,6,11	colwell (13) 20:24 21:1 59:8 60:6 63:18 91:8	compliance (5) 9:21 10:3 26:19 29:22	considered (15) 25:10 53:19 54:2,8 108:24	cooperation (1) 125:19 copied (5) 13:23 22:25 180:19 185:2 207:3	critical (5) 77:15 113:25 144:14 169:21 172:10	decided (1) 46:12
94:17 96:24 102:2 104:15,23 107:11,15	93:12 129:23 130:17,19 131:21	complain (1) 208:23 complained (3) 121:10,24 124:6	110:18 115:10,16 120:11 121:21 137:3	cooperation (1) 125:19 copied (5) 13:23 22:25 180:19 185:2 207:3	cross (1) 100:9 crossreference (1) 90:8	deciding (1) 192:25
110:16 112:6 113:9,14,18 114:2	147:4 160:10 colwells (3) 93:16 96:11 130:5	completeness (2) 8:2 52:16	155:16 172:12,15 201:6	copy (4) 51:9,17 61:1 198:12	crossreferenced (1) 122:20	decipher (1) 107:25
117:16 118:16 119:5 129:12,18 131:25	comb (2) 50:13,20 combustibility (10) 9:24 24:17,18,22 25:20,24	completion (2) 30:13 128:12	constant (1) 166:4 constant (1) 161:13	copy (4) 51:9,17 61:1 198:12	crossreferencing (1) 83:24	decision (6) 58:5 59:17,18 61:14
134:18 136:20 137:1,4,6,7	26:11 27:6,11 97:1 combustible (14) 9:18 24:20,25 25:5,6,9	complex (2) 71:25 183:7	constantly (6) 79:22 83:23 84:12 127:23	copies (1) 107:8 copock (5) 37:24 47:7 169:10 174:1 195:23	crossreferencing (1) 83:24	64:2,13
139:13,15,21 141:4,5,13,19 142:18	27:9,22,24 28:1,2 29:10 155:4 168:21	compliance (5) 9:21 10:3 26:19 29:22	158:13 160:6 constructed (3) 70:10,20 74:19	copy (4) 51:9,17 61:1 198:12	culminates (1) 189:10	decisionmaker (1) 58:11
143:5 145:5 149:10 151:25 152:7,14	combustion (1) 30:6 come (32) 15:24,25 19:16 49:8,21 57:1	complain (1) 208:23 complained (3) 121:10,24 124:6	110:18 115:10,16 120:11 121:21 137:3	corner (5) 11:9 137:20 140:16 158:14 165:21	culture (2) 212:20,22	decisions (3) 45:23,24 46:1
156:24 162:25 163:20 164:20 183:10,11	69:5 75:24 81:18 83:17 84:18 86:25	compliant (1) 85:14 complicated (1) 185:18	155:16 172:12,15 201:6	correct (72) 4:5 7:16,23 8:15 12:20 19:24 23:3	current (6) 49:1 125:21 156:8 182:13 190:12	defined (1) 140:19
184:2,2 185:22 191:18,23	92:7 109:16 113:3 combustion (1) 30:6	component (7) 85:8 131:16 134:17,22	concern (8) 107:24 108:2,6 156:14 157:9	25:2,14,21 26:3,12 27:19 34:4,7 35:18	209:22	definitely (11) 50:17 67:25 72:2 108:5
claiming (1) 66:12	combustion (1) 30:6 come (32) 15:24,25 19:16 49:8,21 57:1	136:16 159:18 194:17 components (4) 12:21 24:20,25 25:5,6,9	178:24 195:12 209:15	36:6 37:15 38:2,17 39:2 43:16,20 45:22	currently (12) 30:8 45:9 98:25 99:4 125:17	123:4 127:16 128:22
clarified (1) 205:23	29:10 155:4 168:21 combustion (1) 30:6	166:17 170:2 compromising (1) 187:14	143:16 207:23	49:16,20 51:21 56:20 58:4 60:19 62:18	126:1,20 153:15 181:5 184:9 186:19 187:3	133:20 142:16 165:6 201:3
clarify (2) 98:3 196:24	69:5 75:24 81:18 83:17 84:18 86:25	comprehension (5) 125:21 132:2,15	141:2,11,11 142:8,12	58:4 60:19 62:18 64:23 67:22 73:12	customers (11) 55:12,17 89:1,15,16	degradation (1) 74:4
clarifying (1) 97:24	92:7 109:16 113:3 combustion (1) 30:6	166:17 170:2 compromising (1) 187:14	143:16 207:23	75:18 78:7 80:25 82:6 85:16 88:12 93:14	123:25 128:17 178:13,17,24 179:16	degraded (1) 200:16
clarity (1) 207:10	combustion (1) 30:6 come (32) 15:24,25 19:16 49:8,21 57:1	178:24 195:12 209:15	143:16 207:23	94:10,11,21,22 96:8,9 97:8 99:8	daily (1) 145:24 damage (2) 107:22 164:11	degree (3) 44:3 45:19 70:2
clark (10) 20:24 50:21 63:10 77:20,22	69:5 75:24 81:18 83:17 84:18 86:25	concern (8) 107:24 108:2,6 156:14 157:9	143:16 207:23	108:16,18,21 113:15 118:8 119:21 130:5	data (22) 52:8 62:1 98:8 101:12 107:7	degrees (3) 62:2,11 150:15
147:5,25 160:5,18 161:5	92:7 109:16 113:3 combustion (1) 30:6	178:24 195:12 209:15	143:16 207:23	140:14 145:21 162:15 164:8,21 170:24	108:1 110:18 112:11 113:5,7 116:8 123:19	delay (4) 101:11 196:9 211:21,22
class (14) 7:19 16:19 23:13 34:12 41:14	92:7 109:16 113:3 combustion (1) 30:6	178:24 195:12 209:15	143:16 207:23	180:20 199:6 203:18 205:15,17,20 206:5,11	dangers (1) 213:16	delayed (1) 196:14
99:2 103:18 121:23	92:7 109:16 113:3 combustion (1) 30:6	178:24 195:12 209:15	143:16 207:23	208:13,14 corrected (1) 206:8 correctly (3) 8:19 48:3	data (22) 52:8 62:1 98:8 101:12 107:7	delegated (1) 46:13

124:2 136:9,12 142:22	158:23,25 163:8 171:5	dismissing (1) 212:14	47:12 71:17 72:10	email (90) 5:18 6:8 8:12	essentially (7) 5:3,7	existed (1) 89:17
149:16 157:21 196:21	175:4 177:12 179:18	displaying (1) 205:9	78:9,10,13 93:4,10	13:14,18,19 15:6	31:5 48:7 60:11 76:6	existing (1) 181:14
197:1 198:11	185:24 188:22 191:16	disseminate (1) 61:12	96:16,17 103:10 113:4	22:17,19,19 23:4 27:4	128:2	exova (1) 197:15
dependent (1) 143:16	194:19 213:17	distinction (1) 84:3	124:15,16 126:5	29:24 51:20 60:5,20	establishment (3) 97:5	expand (1) 118:18
depends (1) 202:23	die (1) 153:6	distributed (1) 8:12	130:23 131:5 139:14	68:3 77:23	102:8 120:22	expanded (1) 99:21
depletion (2) 66:8,13	differ (1) 35:9	distributors (1) 10:19	140:15 145:17 150:7	80:9,10,11,13 81:22	et (8) 86:9 91:2,3 185:8	expected (1) 190:8
descend (1) 137:1	difference (6) 74:25	division (1) 131:23	151:17 153:15 159:13	91:7 92:5,7,18 93:16	191:24 195:1 201:1	expecting (3) 95:18
describe (3) 77:25	163:12,13 164:22	document (26) 9:16,22	181:23 192:1 196:18	94:12,15 95:22 96:17	202:9	103:3 214:12
131:17 212:22	185:19,21	24:14 25:3,8,11	197:4 202:11	97:23 98:20 100:2,25	etc (1) 25:2	expedite (1) 175:24
described (3) 24:19	differences (1) 126:22	26:18,22 27:14 90:9	dr (1) 20:12	101:1,8 104:11	eternit (1) 45:15	expense (4) 58:13 89:21
113:16 171:8	different (35) 2:1	96:1,19,21 97:18	draft (5) 32:8 51:4,5,19	105:1,3,16,20 106:5,9	21:6 74:11 153:22	90:2 133:16
describing (2) 131:8	18:2,23 31:3,7,8 33:18	100:6 102:3,4 103:12	206:1	107:4 109:9 113:2	154:4,9,15 155:9	expensive (2) 44:23
132:16	39:4,19,20 42:1 48:24	109:6 110:10 121:5	drafted (1) 116:18	115:23	64:21,25 68:4	52:17
description (18) 15:1	68:19 69:8 71:20	122:20 147:12 159:11	dramatic (3) 163:19	121:14,15,16,17 144:8	eurofox (4) 60:17	experience (3) 2:25
27:6 37:7 46:20	104:23 122:4	170:21 196:19	169:19 171:9	169:6,8 171:10	173:3,22 175:22	46:16 151:25
51:14,18 65:24	127:2,11,25	documentation (2)	draw (1) 84:2	177:22 178:23,23,25	179:11,14,23,24	experiencing (1) 8:9
67:7,21,24 75:3,6 78:8	131:9,10,24 137:13	105:9 209:21	drawings (7) 47:15,23	180:1,3 181:18,23	183:19 185:12	expert (6) 53:19
79:14 81:19 204:4,23	151:3 160:16 165:4	documents (3) 94:25	50:1,5,11 53:3 83:24	187:22 209:5 210:9,10	186:14,19 187:16	54:3,9,11 112:14
205:4	171:24 172:3	100:10 181:15	drip (2) 23:18 204:7	211:2	189:18,20 190:21,22	123:15
descriptions (1) 78:5	185:14,22 186:9	does (29) 14:13 16:1	driving (2) 120:5 193:3	emailing (1) 106:2	192:2,24 207:3,6	expertise (1) 54:15
design (9)	187:13 191:23 199:21	22:2 23:18 24:17	drop (1) 154:11	emails (11) 77:19,21	208:17 209:5 210:9,10	explain (5) 20:12 51:10
47:11,14,18,22 48:5	differently (4) 128:3,5,8	35:23 38:15 52:13	drying (2) 35:24,25	91:6 94:6 99:15 110:2	211:2	52:2 75:25 201:17
139:11,24 148:22	166:6	66:6 75:19 90:1	duct (2) 34:19,19	113:16 127:17 130:5	event (1) 24:1	explained (3) 19:2
149:8	difficult (4) 106:24	100:10 112:14 123:15	due (4) 58:13 126:14	189:16 209:14	eventually (3) 68:23	129:23 194:23
designed (4) 11:22 12:6	107:18 127:23 184:21	124:24 135:21 138:24	184:23 200:4	embroided (1) 212:20	79:19 118:18	explaining (1) 96:10
64:24 74:3	difficulty (1) 1:24	139:2 142:7,13,15	duration (3) 5:20	emotive (5) 176:25	ever (18) 33:10 34:10	exposed (1) 129:12
designer (2) 47:24 48:2	dimensions (2) 15:9	157:14 170:7 171:22	123:17 190:6	177:22 209:5 210:9,10	48:14 76:21 93:18	expresses (1) 111:1
designing (1) 48:16	67:22	173:8 174:11 177:6	during (2) 4:6 85:23	187:22 200:3	123:10,10 130:1,4	expressing (1) 178:24
desire (1) 178:5	diploma (2) 3:23,23	202:20 211:4	durman (1) 101:2	189:16 209:14	135:7,13 155:17 158:4	extend (1) 134:4
desired (1) 173:13	direct (1) 30:6	doesnt (30) 11:17 16:2	dust (5) 208:25	192:20	165:13 173:15 179:15	extended (3) 72:25
desk (2) 81:16,23	directed (2) 209:5,7	17:6 39:8 87:6 103:18	210:12,19 211:4 212:8	emotion (5) 176:25	177:22 200:3	129:25 132:13
desperately (1) 146:4	direction (1) 213:20	113:13 116:25,25	dutch (4) 19:17 33:16	187:22 200:3	every (7) 25:9 58:23	extension (2) 25:11
despite (1) 143:4	directions (2) 71:21	117:21,22 121:8	37:8 38:4	employed (2) 1:5 3:1	97:20 101:21	98:6
destroy (2) 77:6 186:21	128:9	122:25 123:16 136:21	dvd (1) 146:20	employing (1) 211:20	103:14,23 104:8	extent (1) 54:17
destroyed (2) 81:6	directly (13) 5:24 7:20	137:15 138:22 139:1		employment (1) 6:4	148:18 211:3	exterior (4) 49:13,15
100:10	31:10,13 35:4 70:24	142:13,14 148:20		en (3) 20:11 40:11,14	193:4 203:19	75:16 137:13
detail (8) 26:17 46:15	101:7 108:10 109:3	170:6 171:21 174:11		enclosed (2) 80:17	evidence (22) 1:22 2:20	external (19) 9:7 12:16
51:8,17 95:23	111:18 138:1 164:25	185:12 187:4 206:11		94:18	39:25 45:3 49:17	24:16 47:24 69:4
188:11,14 204:21	211:14	208:18 210:16 211:2		enclosing (1) 94:20	55:3,8 57:4,4,6 89:9	73:25 74:2,3,8,12
detailed (1) 37:7	director (15) 6:2 38:7	doing (8) 5:7 20:5 26:5		end (15) 7:4 52:1 67:6	91:25 93:1 114:10	85:13 110:15
detailing (3) 25:2 182:7	43:10,24 58:14,15	39:12 44:5 135:15		77:2 79:12 81:21	138:7 145:22 167:15	139:15,18,19 140:3
190:17	72:10 131:20,21	163:9 188:17		90:24 91:3 96:17	193:9 198:2 203:13	141:4,5,23
details (12) 67:4,4	132:22,25 135:13	done (22) 13:10 39:9		158:15 161:8 171:22	213:12 214:15	extinguish (3) 150:22
105:13,14,21,25	144:24 159:5 214:2	65:19 100:13 131:15		190:5 205:4,5	evolution (1) 165:18	154:13 180:23
126:14 139:11,24	directorlevel (1) 197:19	133:17,18 137:11		endangering (1) 150:23	evolved (1) 29:18	extinguished (6) 159:23
182:13 184:23 193:12	directors (4) 131:6	139:8 140:13 152:17		ended (1) 143:11	exact (4) 64:1 85:14	163:24 164:3
determine (2) 184:21	133:2 200:8 213:19	154:5 155:7 157:5		engineer (3) 112:10	156:23 197:24	190:2,4,7
210:1	directory (1) 106:11	158:9 172:19		194:16,16	exactly (8) 8:2 73:1	extra (1) 95:10
determining (1) 209:20	disappointed (1) 133:23	197:12,14,15 198:8		engineers (2) 26:25	76:22 85:22 104:19	extrapolate (5) 63:18
develop (1) 152:9	discetionsic (1) 146:21	206:13 214:9		95:17	130:10 146:22 189:5	73:3 95:19 112:9,10
developed (3) 10:9,14	disclosed (4) 11:6	dont (54) 12:1 35:6		english (1) 122:9	examine (1) 50:9	extrapolated (1) 70:14
196:17	192:12,25 193:1	41:18 52:16 54:23		enough (4) 15:10	examined (1) 50:3	extrapolations (1) 94:1
development (15) 7:10	discount (1) 192:19	57:3 60:23 61:22 86:5		142:13 151:17 214:9	examining (1) 53:2	extremely (2) 174:9,16
10:11 12:14 16:18	discuss (11) 60:22 61:7	93:18 99:19,19 106:3		enquiries (4) 8:9 10:17	example (2) 211:24,25	eye (1) 107:22
17:6 23:1 38:1,16,18	63:11 135:7 156:4	109:1 114:10 116:2		106:11 181:20	exap (10) 58:25 71:17	
169:23 202:14,22	160:7,24 165:13	121:23 123:10 124:7		enquiry (1) 6:15	72:24 73:5,10	
203:22 207:22 208:9	200:11 213:22 214:15	130:4,5 135:3 137:6		ensure (5) 36:9 38:24	85:16,17 89:23 193:12	
deviate (1) 148:9	discussed (14) 2:20	139:7 142:22 148:10		51:21 161:12 186:20	199:8	
devised (1) 38:20	6:11 80:6 82:4 86:23	157:17 167:14 169:14		ensuring (1) 53:1	exceed (1) 205:8	
devising (1) 30:8	92:23 156:7,9	171:4 172:1,2		entirely (2) 119:11	excel (1) 18:14	
devoted (1) 212:25	160:18,23 165:23	173:14,15 178:20		208:6	excess (3) 182:15	
diagnosed (1) 100:9	185:4,10 213:25	179:9,18 180:13,15		entitled (1) 120:14	190:4,9	
dialogue (1) 30:7	discussing (6) 99:5,14	181:5 183:15 185:25		entry (1) 126:6	exchange (1) 105:1	
didn't (49) 14:17 26:9	129:22 161:6 185:1	187:25 188:21 189:12		epfa (1) 27:16	exchanges (2) 6:9 94:7	
44:9,15 45:12 60:18	200:10	200:8 201:9 203:21,21		eps (1) 25:5	execution (1) 46:13	
61:10 62:8 79:4	discussion (10) 23:5	204:1,15 209:10		escape (1) 24:1	executive (4) 145:6,9	
90:13,14,21 91:4,4	61:9,19,20 63:15,17	214:4,15		escapes (1) 147:24	147:12 161:18	
95:9 98:3 99:21,25	98:7 147:15 200:7,18	double (1) 197:7		especially (3) 161:8	exhibits (1) 23:16	
100:24 107:3,9	discussions (16) 23:6	doubt (1) 110:17		184:21 192:20		
108:8,22 109:3	30:7 48:19 58:21 63:9	doubtful (1) 54:20		essential (6) 32:11		
115:5,9 130:8 131:1,3	64:5,7,15,17 69:3 71:4	doug (1) 149:18		35:20,23 145:18		
133:6 136:15,25 137:1	72:11 109:16 129:24	down (34) 1:13 12:12		201:2,4		
143:2,9,12 157:14	147:22 200:3	16:16 17:11 27:8				

35:17 76:14 150:1 155:25 173:17 facers (4) 36:18,19 66:20 153:21 facetoface (3) 5:19 6:8 59:13 facility (2) 30:2 32:4 facing (10) 13:4 14:2,11 15:4 16:23 17:12 18:6 19:3 22:8 37:2 facings (8) 14:17 41:25 42:1,3,4,6,8,10 factors (6) 71:15 185:18 191:22,24 202:8 207:18 factory (4) 36:12 83:18 195:11 203:14 fail (4) 77:14 94:24 151:2 168:25 failed (8) 153:13 163:17 168:13,21 180:21 182:10 186:25 187:20 failing (1) 150:15 fails (2) 176:9 177:22 failure (11) 147:7 152:15 159:17,19 163:15 169:19 171:9 182:12 184:20 190:11 196:1 faint (1) 162:11 fair (8) 26:14 27:7 28:4 73:11 170:23 176:25 177:22 208:13 fairer (1) 163:14 fait (2) 74:24 144:24 fall (5) 97:18 103:9,11 151:6 154:11 falling (1) 62:22 falls (1) 151:9 familiar (1) 82:1 faqs (1) 27:15 far (22) 18:4 28:13,16 32:22 34:17 36:20 67:15,19 75:2 84:9,12 88:24 111:5 127:5 142:13 154:15 166:25 171:15 172:25 179:18 199:13,20 fastidious (1) 53:2 fault (3) 112:8 152:15 156:24 favourable (2) 100:6 144:15 fax (4) 106:3,14,16,17 featured (2) 100:7 125:25 featuring (1) 125:15 february (5) 4:3,8,15 18:16 105:3 feed (2) 151:7,9 feedback (6) 46:25 47:17 48:14 111:22 135:12 148:19 feel (10) 2:2 90:21 128:17 157:25 160:5 171:5 185:17 186:1 204:15 206:18 feet (1) 49:19 fell (1) 163:8 felt (10) 45:12 115:12 135:21 146:7 154:7,7 157:20 158:4 174:21 187:13	ferociously (2) 151:14 152:12 few (4) 41:7 60:24 180:7,11 fibre (8) 25:6 74:9,14,23 75:20 76:20 175:9,11 fibres (1) 75:21 fifth (5) 29:24 54:2 96:5,17 119:23 fighting (1) 145:25 figure (1) 139:13 figures (1) 201:15 file (6) 80:5 208:25 210:12,18 211:3 212:8 fill (1) 86:2 final (4) 32:11 51:9,17 143:22 finances (1) 119:3 find (12) 11:5 44:6 80:17 92:4 94:18 101:11 105:12 135:21 191:6,12 198:23 212:13 fine (1) 14:17 finer (1) 46:15 finetooth (2) 50:13,20 finish (4) 139:16,18,20 206:16 finished (1) 132:5 fire (180) 7:12,13,22 8:16,24 9:2,2,5,16 10:3 13:7,10,12 17:16,18 19:5,6 20:16 23:22,25 24:2 25:2,9 26:25 27:20 28:10 29:7,9,18 30:4,12,16 31:16,19,21 34:8 38:8 39:5,11,17 40:8,12 41:16 42:18 44:20 45:24 46:10,12,15,22 47:5 65:1,6,7,9,10,11 69:23 70:1 72:5 73:10,13 76:3,6 77:5,6,15,17 79:17,20,21,21 80:6 81:7,8,13,15 82:20 95:17 96:5,8 99:6 100:11 101:8,20 102:6 104:1,9,12,14 114:1 120:6 127:10 128:4 129:12 140:16,23 141:3,4,23 143:9,10 144:15 148:1,5,10,12 149:23 150:13,23 151:4,7,9,22 152:8,8,19,20,20 153:6 154:11,20 155:13 156:4,15 157:9 158:1,9,21 162:16 163:3,20 165:10 166:11,13,23 167:1,4 168:4 169:17 170:9,15 172:14,24 173:18 174:3 176:9,12,13 178:13,18 179:17 183:24 184:11 185:11 189:25 194:16 195:16 197:9 198:21 199:5,17,21 200:5,15 202:10,15,22 203:20,22 204:8,21 205:9,9 207:11,20,22 208:9 212:16,16	firebreak (1) 81:23 firemans (2) 96:23 102:1 firm (1) 59:1 first (61) 1:4 3:1 8:16,18 10:8,14 11:5,10,15 13:20 21:12,20 22:3,5,19 23:4 25:2,17 30:18 32:3 59:23 61:5,15 63:2 65:25 67:5 71:7 73:21,22 86:23 87:1 91:11 101:10 105:3 111:14 117:7 120:18,19 121:15 124:18 126:5,13 135:12,16 138:12 139:12,18 147:14 149:23 151:25 157:3 168:13 171:16 185:5 192:11,15 201:25 202:3,7 203:9 213:1 firstly (1) 209:15 fit (2) 12:20 60:25 fitted (2) 69:13 81:4 five (4) 72:11,12 131:9 134:7 fix (2) 69:5 183:13 fixed (5) 67:10,12 101:16 141:13 205:2 fixing (1) 67:4 fixings (1) 149:6 flagged (1) 127:14 flame (7) 23:19 24:21 41:13 154:12 159:22,23 180:25 flames (1) 154:18 flapped (1) 152:7 flash (1) 154:10 flashover (1) 77:5 flat (1) 96:5 flavour (1) 165:3 flexibility (1) 134:17 floated (1) 138:8 floor (14) 40:22 65:9,10 76:6 81:5 96:5 97:20 101:21 103:14,23 104:8 148:6,6,13 flow (1) 166:2 flyer (6) 98:25 120:13 121:10,13,20 124:6 foam (22) 10:23 15:16,20 23:20,22,22 29:10 30:14 33:19 34:9 37:9,10 45:5 107:19 120:1 154:23 155:7 187:6 188:3,5,7 191:18 foams (2) 126:21 173:5 focus (6) 46:12,22 47:5 55:9 89:10 176:23 focusing (1) 61:5 foil (30) 14:14,17,22 15:4 16:23 17:12 18:6,19 19:3,9,14,21 32:24,25 35:17,20 36:5,18,19 66:20 76:14 88:7 150:1,2,3 153:17,21 155:25 173:5,17 fold (1) 44:21 folder (1) 78:25 follow (3) 113:7 135:21	157:14 following (14) 4:7 23:9 37:8 85:10,12 95:2 106:1 122:3 142:9 147:15 170:10 181:21 189:25 190:1 follows (2) 183:21 207:17 foot (1) 15:1 form (6) 23:20 63:9 112:22 123:15 198:17 199:5 formal (3) 33:10 122:24 155:6 format (1) 61:2 forms (2) 24:21 27:10 formulate (1) 172:21 formulation (8) 161:12 182:13 183:14 184:10,14 190:12 195:14 196:7 formulations (2) 127:24 161:16 forthcoming (1) 93:21 forward (19) 10:20,25 98:9 102:25 105:20 110:9 118:24 131:4 135:6 158:14 168:2 172:22 179:12 182:7 189:16 190:17 193:9 200:12 210:18 forwarded (1) 207:4 found (2) 90:6 92:7 four (7) 5:17 40:25 98:10 113:6 140:10 182:6 190:16 fourth (4) 27:8 28:6 54:2 78:13 fr (5) 176:2 177:24 178:7 196:10,16 frame (14) 17:1 80:23 91:16 100:14 139:21 140:9 144:11,15 145:3,23 146:5 165:2 168:5 181:3 framing (3) 44:20 70:2 134:19 frequently (1) 153:4 friends (1) 99:5 front (11) 10:16 21:24 22:9,14,15 31:10 45:10 116:5 152:7 164:11 187:17 frontline (1) 8:11 frs (2) 30:7 99:5 fruition (2) 103:2 112:2 frustrating (1) 210:25 frustrations (1) 199:7 full (13) 1:18 62:6 107:10 111:10 120:1 123:17 126:17 129:12 130:14 132:2 134:23 146:21 186:4 fullscale (3) 10:3 117:9 195:16 fully (7) 152:9 154:25 159:21 165:24 192:16 193:18 194:22 fund (1) 44:21 fundamentally (1) 143:7 further (18) 2:5 23:6,10 45:12 74:6 91:13	92:1,20 98:14 118:10,17,22 120:4 182:5 190:15 195:11 199:19 204:9 future (4) 79:22 153:14 182:11 207:16 <hr/> G <hr/> gain (2) 82:2 92:2 gallear (1) 147:4 gareth (13) 105:3,9,18,19,23 106:4 201:19 209:6,8,9,13 210:11 211:2 gareths (1) 210:17 garneck (1) 96:8 gather (5) 208:25 210:12,18 211:3 212:8 gaubsaite (1) 109:13 gave (8) 20:22 55:20 100:21 104:11 151:14 171:1 188:11 213:15 general (6) 45:20 64:5,15 79:11 201:8 211:4 generally (6) 51:6 74:11 176:15,16 179:15 200:24 generic (7) 79:14 80:6,12 121:16 136:20 141:17 184:1 george (5) 206:25 207:7 209:12 210:9,20 get (51) 8:13 20:15 21:5,9 26:9 39:22 41:16 44:23 46:8,25 48:25 54:23 57:25 62:6,9 67:4 71:22,22 72:16 77:15 90:11,23 99:13,25 102:21 104:21 107:8,15 114:9 119:16 120:1 130:1,22 131:9,13 133:8 134:12 135:18 137:7 154:14 155:1 156:16 176:23 184:18 186:22 187:22 192:3 194:5 196:10 212:19,20 gets (1) 106:22 getting (16) 31:23 48:14 119:4,7 132:2 136:1 147:9 181:6 186:18 187:24 189:11 192:10,18 193:17,21 199:8 give (28) 1:18,22 23:14 44:12 49:13 52:10 61:25 65:3 81:19 89:23 91:25 109:4 129:15 132:7 133:7 134:14 148:5,19 163:14 165:3,13 181:6 188:8,15 200:17 203:13 204:5 205:25 given (22) 19:2 25:1,8 44:3 45:19 62:11 67:21 75:3 123:16 128:9 130:2 144:11 155:3 156:2 158:8 166:6 179:17 183:4 186:4 199:23 200:5 203:19	gives (3) 67:6 98:14 201:10 giving (4) 25:6 78:6 117:14 122:14 glass (2) 31:9 32:21 glazing (1) 10:21 glean (3) 160:21 187:11 189:9 gleaned (2) 103:6 204:2 glowed (1) 154:18 goal (4) 79:12 90:24 91:3 161:8 goalposts (2) 129:20 130:11 goals (1) 144:18 goes (2) 109:14 119:23 going (63) 1:4,25 2:24 15:24 16:9 19:16 22:11 26:6 40:2,11 48:20,21 49:8,21 50:19 55:19 56:25 57:25 60:12 71:20 72:4 76:19 81:18 84:18 86:1 87:13 93:8 96:16 102:23 112:19 114:8 118:12 124:4 127:17 129:4 133:20 134:8,12 165:17 166:2 167:9 174:22 176:18,20,22 177:6,11 178:7 179:12,12 183:8 192:14 204:6 206:19 207:2,19 208:8,17 209:2 212:23 213:3,10 214:10 gone (1) 58:14 good (17) 1:3,15 20:18 26:15 44:12 56:22,24 57:11,18 59:24 114:4,17 121:21 167:7 176:20 190:25 209:12 grabbed (1) 210:24 grade (4) 16:22 17:12 18:6 19:3 grands (1) 131:11 grange (24) 1:7,8,15,17 55:19 56:1,21 57:19,20 114:3,25 115:1 167:6,10,25 168:1 171:10,19,20 206:14,22 214:2,6,8 graphical (1) 52:8 graphite (3) 82:18,19,20 graphitebacked (1) 76:3 gravely (1) 170:5 great (7) 2:10 3:9,24 185:20 192:11 193:10 213:2 green (2) 61:24 201:8 grenfell (1) 125:18 grey (1) 75:17 grilled (3) 186:18 187:24 189:11 ground (1) 24:14 group (9) 34:24 35:3,5 46:12,23 47:5,9 55:1 184:7 growth (2) 30:4 153:6 guess (2) 158:15 203:21 guidance (14) 9:16 24:23 25:8 26:16,18,20 29:6	44:12 52:5,10,13 64:25 96:1 118:15 guided (1) 93:4 guiding (1) 49:2 guy (2) 133:1 153:9 guys (2) 50:22 210:12 gwyn (9) 13:21 15:7 47:7 149:18 169:11 174:1 176:7 180:4,18 <hr/> H <hr/> hadnt (6) 121:2 140:8 157:4 195:7,13,13 half (6) 21:18 22:18 65:25 76:11 181:25 207:6 halfway (2) 181:23 192:1 hall (4) 32:19,20 63:10 130:20 halted (1) 165:15 hamlets (1) 22:22 hammering (1) 151:15 hand (1) 39:9 handle (1) 8:14 hands (3) 106:22 165:25 199:25 happen (2) 133:5 173:6 happened (9) 89:10 96:10 128:23 146:22 154:10 163:15 209:10 213:5,21 happens (2) 81:11 173:7 happy (7) 45:2,4,5,8,9 80:5 146:22 hard (1) 126:15 hasnt (3) 62:11 97:8 154:24 havent (3) 37:3 100:13 125:8 having (11) 13:10 24:22 30:4 74:5 107:7 145:22 175:11 184:21 200:20 201:1 213:18 hazard (2) 202:15,19 head (2) 56:2 135:6 headed (5) 11:12 16:17 83:3 98:21 202:7 heading (11) 22:22 65:23 126:11 140:15 145:14 147:2,13 150:11 151:2 198:14 202:11 headings (1) 83:4 hear (1) 1:4 heard (1) 158:4 hearing (3) 1:4 171:16 214:24 heat (5) 23:19 155:1 190:2,6 197:7 heated (3) 132:1,19 133:4 heath (67) 4:19 5:13,16,23 6:14,18 13:17,21,21 38:9 39:5 40:5,15 43:1,7,25 44:2 45:18 47:6 48:11,12,15 58:12 60:1,3,15,23 61:8,15,20 63:9,10 71:5 109:9,12
--	--	---	---	--	---	--

115:22,25 116:16	highlight (3) 117:21	id (17) 5:17 7:2 111:18	inaccurate (2) 206:9	inquiry (13) 1:16,18,22	107:9 108:14 120:4	69:24 70:24 72:4 75:9
127:14 131:19 135:7	121:22 136:14	115:12 117:1 130:7	208:4	18:12,23 34:23	126:2 137:1 151:6	76:14 77:5 78:14,16
149:1 156:19 157:8	highlighted (1) 138:11	135:12 143:20 152:1,2	include (7) 100:7 103:5	85:21,22 125:5,19,20	155:17 162:3 188:14	79:16 80:10,11,12
158:3 169:11	highly (1) 25:5	165:12 172:20,21	174:18,23 198:16	146:10 215:4	203:14	84:23 85:8,11,24,24
170:19,25 173:25	highperformance (1)	182:25 194:2 196:9	204:1 208:8	inserted (1) 192:13	introduce (1) 154:25	86:11 87:19 94:12
180:19 181:19 182:1	119:1	212:18	included (10) 45:3,4,6	install (2) 149:6,7	introduced (6) 35:16	95:10 96:18 101:2
183:20 185:2 186:15	highrise (15) 8:7,10	idea (4) 62:15 69:14	95:1 110:16 119:20	installation (6)	39:23 46:22 97:19	103:8 108:13
190:21,23 192:2	12:10,16 13:3 31:19	81:8 200:17	131:24 161:18 164:1	83:3,6,7,13 101:12,15	103:14 127:22	111:12,12
195:22 196:21	45:3,5,6,10 105:14	ideas (1) 193:6	209:6	installations (1) 196:4	introduction (2) 156:5	116:9,23,23,25 117:12
197:1,17 207:5	107:16 108:14 143:12	identical (1) 184:5	includes (1) 7:11	installed (7) 35:25	161:8	118:5 119:2 120:19
208:17,19 211:11	144:16	identification (1) 66:1	including (16) 10:8 38:6	83:14,15,22 84:10	intumescent (4) 76:3	121:5,8,9,21
212:8	highrisetechnicalsic (1)	identified (1) 87:7	39:4,15 41:2 47:15	103:22 104:7	81:15,22 82:19	122:19,20,23 123:19
heaths (6) 53:10,24	8:4	identify (1) 132:13	54:6 125:22 136:7	installing (1) 149:5	intumex (1) 78:10	125:10 127:3,4
63:2,22 124:13 187:23	hindsight (8) 100:22	ie (8) 25:2 65:7 97:25	140:13 163:9 164:5	instance (1) 184:5	investigated (1) 74:5	130:10,17 133:12
heavier (4) 16:22 17:12	115:11 117:25 123:13	105:5 129:19 170:15	165:2 170:18 194:21	instant (1) 183:2	investigating (1) 195:25	136:24 137:12
18:6 19:3	128:22 136:24 206:12	192:15 195:15	200:25	instead (2) 51:20	investigations (1)	138:10,23 139:2
heavyhitters (1) 131:7	213:6	ignition (7) 155:19,21	inclusion (1) 172:16	106:11	155:17	140:10,18 142:5,11
hed (1) 186:3	historical (3) 203:1,1,6	182:15 190:10 197:7	inconsistencies (1)	instruction (2) 211:4,10	invite (1) 81:24	143:1,7 145:15 147:3
height (5) 96:23 102:1	history (2) 95:23 96:2	198:24 199:15	183:23	insulant (8) 12:5 81:11	involve (3) 45:1 69:8	150:21 151:8 153:3,7
105:11 139:25 148:9	hit (4) 62:3,12,15	ill (4) 75:24 81:20 150:9	incorporated (2) 24:25	147:7 168:22 174:20	188:22	154:24 155:4,13
held (5) 4:7 42:21	102:24	206:6	149:4	175:9,11 204:16	involved (30) 7:20 8:16	158:21 159:14,17
151:17 154:17 159:18	hoare (11) 60:6	illustrate (1) 163:11	incorporating (7) 21:21	insulators (2) 117:15	9:13 10:10 32:14 33:3	162:11,12,13 164:2
hell (1) 134:11	63:6,19,20,21	im (59) 1:25 2:24 14:16	22:4 42:23 48:2 50:16	155:4	40:8 44:10,16,17	165:10 168:2
hello (1) 189:24	77:20,22 93:13 129:24	15:19,24 18:4 22:10	85:13 89:18	insulated (5) 81:10	54:22,23 55:1,12,16	170:4,14,15 173:24
help (44) 8:7,17 12:25	130:18 147:25	31:15 33:4 34:22	incorrectly (1) 74:7	139:13,14,20 182:9	61:23 71:3 74:20	176:24,25 177:6,20
13:7 15:14 18:2 19:9	hobbs (1) 47:8	35:4,10 40:2 55:19	increase (2) 184:13	insulation (56) 7:13	125:17 138:1 147:22	182:22 183:7
21:2,12 32:7 35:8	hold (7) 78:22,25 107:8	74:24 78:8,10 79:22	185:7	9:8,23 12:16,20	152:10 154:19,25	186:15,16 187:25
40:8,18 41:10 44:21	151:16 185:11 194:5	81:18 86:1 91:22,23	increasing (1) 117:13	22:16,22 23:8,24	159:21 183:15 185:18	189:20 190:20,23
64:21,24 66:6 69:10	210:24	95:8,9 99:4 104:2	incredible (1) 210:22	24:15 27:24 28:1	189:3 191:25 211:14	191:19,22 192:6
75:19 78:20 86:1	holding (1) 186:2	111:18 112:7,19,25	independent (1) 79:17	30:1,12,15 33:17	involvement (4) 35:5	193:19,24 194:14
87:15 88:19 92:22	holiday (2) 146:18,25	116:23 122:19 127:17	index (1) 215:2	34:19 45:11 56:10	149:1 203:7,12	195:6,12 197:2 198:17
97:23 103:20 104:2	holland (1) 37:20	128:23 144:24 147:9	indicated (1) 20:17	58:7 66:3 68:25 69:25	involves (1) 13:17	202:8,23,25 203:1,6
106:9 107:3 116:18	honant (10) 75:10 101:7	158:7 161:1 166:3,25	indication (2) 87:10	77:12 83:25	ireland (1) 145:22	204:5,6,15,16,16
127:20 130:13 148:22	144:25 179:3 180:15	167:4,8 171:14 175:7	111:6	86:11,13,15,16	irish (4) 122:9 200:7	205:1,18,18,24
153:25 154:3 156:15	200:20 201:15 202:25	178:25 180:14 181:14	indicative (8) 87:8	87:2,5,14,23,24	213:18 214:2	206:8,9,21 207:19
158:14 174:18 185:12	204:2 206:6	185:9,11 186:18,19	108:24 110:12	88:16,17 96:24	iron (1) 179:7	208:13 209:18
186:18 193:16 205:21	honesty (1) 156:13	199:7 200:1,1,9 206:6	111:9,11 129:11 197:6	101:14,19 102:2 114:1	irrelevant (1) 135:4	210:16,17 211:4
208:20	hope (4) 58:18 91:13	209:2 214:10,12	198:22	131:25 140:19 141:23	irvine (1) 96:7	itself (3) 65:19 83:1
helpdesk (3) 8:4,8	198:23 207:15	imagine (2) 124:1	individual (2) 36:11	149:4,6,13 159:21	isnt (41) 4:17 7:22	180:24
10:15	hoped (5) 99:13	149:22	159:18	163:16 164:6 174:24	24:10 26:2 33:20	ive (4) 181:15 193:7
helped (4) 60:17 135:25	102:16,17 104:21	immediate (1) 213:25	individually (1) 106:19	175:5,16 184:1 193:11	36:19 37:13 42:5	197:14,15
186:3 193:11	117:18	immediately (5) 15:6	individuals (1) 60:10	210:2	43:15 58:3 59:20 62:6	ivor (24) 1:9,11,20
helpful (5) 7:21 11:4	hopefully (2) 119:13	165:15 180:3 198:20	indulgence (1) 214:7	insulations (8) 9:18	64:20 80:23 85:8	46:14 47:14 49:25
63:14 79:15 148:25	132:13	210:25	industry (5) 185:25	24:20 25:5,10	87:25 107:16 108:13	50:4 51:3,7,10 52:2,25
helping (2) 136:2 187:3	hoping (9) 68:23 69:9	impact (1) 137:14	192:18 193:17,21	27:10,23 28:2 119:2	118:8 122:22 123:18	53:17,17 56:11,11
helps (1) 180:16	79:19 104:23 118:16	implications (4) 173:9	200:25	insurance (1) 120:1	127:8 136:24 138:18	64:1,6 174:3 175:25
henryduncan (3)	158:15 199:4,7,16	209:20,24 210:2	inevitably (2) 69:23	insurers (2) 26:24	140:10,12 142:5	180:5 189:24 196:23
105:8,10,17	horizon (1) 158:12	implied (1) 144:1	118:14	200:25	162:13,23 164:19	215:3
here (29) 2:21 22:25	horizontal (3) 97:19	implies (1) 121:7	inferior (3) 120:12	integral (1) 154:17	168:3,5 177:22 185:14	ivorphil (1) 182:2
36:24 45:14 75:17,17	103:13 104:7	imply (3) 122:19,23	178:14,18	intended (2) 12:4	188:1 199:6 201:2	
79:23 84:3,17 91:22	horizontally (1) 76:9	123:11	inferno (2) 150:14	123:10	205:19 208:14 211:4,7	J
95:8 104:13 111:1,11	hospitals (1) 201:5	importance (2)	156:21	intention (2) 136:13	iso (1) 38:21	james (1) 147:4
131:17 142:11 151:24	hour (2) 183:21 190:6	100:18,20	influence (1) 201:13	144:1	issued (10) 11:7 58:2	jan (1) 7:9
153:3 159:14 160:4	hours (2) 79:20 206:1	important (8) 23:25	info (1) 106:1	interest (1) 51:5	109:2,21 110:11	january (7) 3:3 4:12
171:8 176:18 178:21	house (2) 50:2 195:6	70:5 86:19 107:10	information (32) 28:17	interests (1) 212:9	111:20,24 112:4 140:3	16:10,13 17:14 85:24
182:9 183:8 192:14	housing (1) 201:6	130:2 174:3 185:15	61:12 75:5 80:5	intermediate (1) 101:21	206:8	145:8
193:7 202:1 208:25	howard (1) 110:22	211:16	95:16,19 96:13 103:6	internal (7) 38:20 98:21	issues (15) 6:11 106:2	job (7) 5:3,7 135:16,17
herefordshire (1) 37:13	however (20) 41:25	impossible (3) 72:17	104:24 107:13,15	101:23 169:6,18	158:5 165:20 168:18	145:24 177:6 213:1
hes (16) 14:10 46:9	49:6 50:2 53:2 64:2	154:14 156:1	108:12 115:14	170:14,16	175:8 179:7,19,19	jobs (1) 106:24
54:17 56:5 105:7,22	74:5 100:11 103:13	impregnable (1) 77:11	118:9,21 125:20	internally (3) 34:1 51:6	195:14 200:5 201:23	john (5) 1:11,20
124:15 176:16,22	110:10 111:11 145:25	impression (7) 68:18	126:15 142:21 144:22	170:18	208:16 213:11,25	147:3,23 215:3
177:4 178:23 186:7	146:19 151:15 159:20	98:14 122:14 128:13	145:18 155:3 160:21	interpret (3) 90:5,6	item (6) 17:19 20:5	jointly (2) 50:4 145:15
189:11 191:13 208:8	170:2 180:21 181:2	180:6 204:5 213:16	170:1 185:15 186:2	100:6	21:3 41:20 153:23	july (9) 137:22 181:25
211:6	192:13,21 209:20	improve (5) 152:18,21	187:7,12 194:13	interpreted (3) 29:11	154:5	186:16 189:19,21
hexion (1) 196:10	hs (1) 184:16	184:8,11 207:16	197:16,21 199:14	98:17 115:14	its (165) 2:12,12	192:6 193:24 198:4,6
hi (1) 110:8	hundreds (1) 143:11	improved (4)	213:12	interpreting (1) 119:8	3:14,23,23 7:7 11:3,12	jumped (1) 163:20
hide (1) 194:22	hurdle (1) 143:23	17:15,20,24 18:5	informed (1) 171:14	interrupt (1) 171:7	13:16,21 14:25,25	june (9) 96:5 121:14
hierarchy (2) 199:19,23	husband (1) 130:19	improvement (1)	informing (1) 161:6	intimately (1) 74:20	15:1,15,19,20 16:13	169:5,9 173:24 175:22
high (8) 12:19,24 81:12	huxham (3) 13:22 22:25	207:14	initial (2) 100:23 197:8	into (26) 2:10 16:9	17:8 21:17 22:2 27:20	179:24 180:18 181:21
82:18 101:14 117:12	60:15	improvements (1)	initially (2) 100:24	44:20 51:24 53:18	29:10 31:13 33:5	justification (1) 191:17
120:5 199:1	hypothesis (2) 154:7	153:13	154:10	54:7 57:25 61:2 69:24	37:8,9 38:24	justify (7) 11:3 29:15
higher (6) 3:23 23:23	155:23	improving (2) 36:2	input (9) 47:17 48:4,6,6	71:8 73:3 77:7,15	39:8,9,17 60:10	106:24 107:18 133:12
148:12,13,13,15	I	152:16	53:16,18,20 54:6,7	78:11 83:17 106:22	62:7,15,16,21 64:20	135:22 161:10
						justin (1) 47:6

K																																																																																																																												
k015 (2)	180:7,10	kept (3)	36:8 68:15 138:1	63:3,23 kin00020720 (1)	11:8 122:6 123:10 125:5,17	56:10,17 112:9 known (7)	73:5	left (4)	60:25 61:9 130:15 164:23	lintel (1)	77:6																																																																																																																	
k12 (1)	40:24	kesteren (18)	19:19 33:14 34:2,5,23 35:8	kin0002082156 (1)	126:21 127:1,6,20	86:18,18 127:6 137:10	170:18 197:21	lefthand (4)	18:16 36:24 126:8 202:2	linzi (1)	47:8																																																																																																																	
k15 (215)	8:10,17,25 9:11 10:7,8,13 11:12 12:4 13:8,10 14:1,14,17 16:5,18 17:6,13 18:3,24 19:15 21:13,21,23 22:2,4 23:1,5,7,12 25:20 26:4 29:1,15 30:15 31:1 34:1,25,25 35:9,9,16 36:17 39:6,15 40:13,19 41:2,3,4,8 42:18,23 50:16 53:13 54:5 55:6 56:8,8 57:23 58:19 66:2,7,14,24 76:13,15 77:17 79:16 81:3,11 82:3 84:19,22 85:13,23 86:15 87:10,17,25 88:22 89:2,18 90:25 91:14,22 92:25 94:17 97:4,17,24 98:4,15 101:14,22 102:7 103:12,21 104:5 105:9,10,14 108:14 109:4 111:14 113:8 118:7 120:15,21 121:17,19 122:6,14 124:11,12,17,25 125:15,22 126:18 127:8,18 128:17 129:10,11 131:25 135:8,22 137:19 138:18 140:3,9,18 141:1 142:7,17 143:11,24 144:10,14 146:5 149:13,21,24 151:22,23 155:4 157:10 158:2,8 161:11 163:13 165:4,14 166:23 169:5,11 170:3,4,15 171:25 173:24 176:2,11,14 177:13,18,24 178:6,12 179:17 180:12 181:11,21 182:4,12,13,14,21 183:15 184:1,5,11 185:13,14 186:9 188:19 190:2,9,11,14 191:6,7,8,12,13 194:7,21 195:15,17,18 196:16 197:6,13,14 199:16,22 200:4 201:13,20 206:24 207:10 209:15 211:22 212:6	137:18 kin000035452 (1) 139:10 kin000035456 (1) 140:15 kin00003685 (1)	22:18 kin00003688 (1)	94:7 kin000036882 (1)	100:3 kin000036961 (1)	106:7 kin000036962 (1) 106:13 kin00003698 (1)	196:20 kin00003704 (1)	173:23 kin00003714 (1)	189:20 kin000037141 (1) 195:21 kin00004791 (2)	60:8 113:1 kin00005048 (1)	13:15 kin00005054 (2)	16:11 20:2 kin00005075 (1)	80:10 kin00005079 (1)	75:12 kin00005156 (1)	91:7 kin00005179 (1)	121:15 kin00005350 (1)	120:16 kin000088432 (1)	169:7 kin000088433 (1) 169:15 kin000088442 (1)	192:1 kin00008847 (1)	145:7 kin0000884710 (1) 162:9 kin0000884712 (1)	162:11 kin0000884713 (1) 163:25 kin0000884714 (1) 164:5 kin0000884716 (1) 164:10 kin000088472 (2) 145:13 150:10 kin0000884721 (1) 162:19 kin0000884722 (1) 164:15 kin000088473 (1) 150:20 kin000088476 (1) 147:11 kin000088477 (1) 161:21 kin000088479 (1)	162:4 kin00008848 (1)	198:5 kin000088482 (1) 198:13 kin00009103 (1)	207:5 kin0002070913 (1) 124:14 kin0002070929 (1) 53:11 kin0002070972 (2)	116:8 kin000209134 (1) 180:17 kin000209135 (1) 179:24 kin000209171 (1) 186:15 kin000209172 (1) 181:22 kin00021738 (1)	116:10 kin00022307 (2)	18:12 36:22 kin00022312 (2)	2:12 4:1 kin0002231215 (1) 89:13 kin000223122 (2)	10:6 12:3 kin0002231228 (1) 200:24 kin0002231233 (1) 84:16 kin000223125 (1)	129:6 kin0002231250 (1) 42:19 kin0002231251 (1) 43:12 kin0002231254 (1) 21:17 kin0002231255 (1) 59:17 kin00022357 (2)	85:25 150:5 kin0002261023 (1)	56:4 kin00024104 (1) 125:6 kin000241042 (1) 126:10 kin00036962 (1)	105:2 kind (20)	6:23 26:25 49:14 50:23 65:3 73:13 82:1 133:17 134:11 137:9 143:22 152:5,6 165:25 175:16 194:1 199:14,25 206:22 212:19 kingspan (164)	1:6 3:1,7,10 4:2,20 6:4,22 7:10,12,13 9:14 12:15 15:22 18:11 19:11 21:21 23:7 27:15,25 30:1,20 33:3,16 34:1,10 36:8 37:9,14,21 41:25 42:21 51:15,22 52:25 53:19 54:3,9 56:2,7,17 57:22 58:9,18 60:16 61:18 67:1 69:3 71:3 72:9,23 74:6 79:16 85:21 86:16,21 88:17 89:20 90:25 91:4,19 94:8,9,10,13,14 97:24 98:4,7 99:23 102:17,18 108:9,13,19 109:10 115:5 116:8	119:19 120:9,14,21 122:6 123:10 125:5,17 126:21 127:1,6,20 128:18 129:9 131:20,23 132:7,21,22 134:3 135:11 136:6 137:17 140:18 141:1 142:18,25 143:7 144:10,14,21 145:16,18 147:22 149:12 156:6 157:4,13 165:8,14 166:5 169:3,4,7 170:18 171:20,20,23 172:2 174:21,22,23,24 175:3,4,7,14,15,15 181:20,24 183:25 185:16 186:6 188:6,17,19 189:12,19,23 193:1,11,17 194:3,10 195:13 196:15 197:17,22 206:24 209:20,24 210:2 211:20 212:4,22 kingspans (5)	34:16 101:23 130:2 144:16 212:9 knew (11)	9:22,25 10:2 27:19 108:9,9 171:17 189:5,8 199:21 203:19 know (143)	2:3,5 9:2 13:8 18:23 24:8 26:25 28:18 29:4 32:6 33:16 35:25 42:14 44:22 54:23,24 55:2 57:22,25 60:23 61:22 64:20 66:6 68:3,15 74:25 80:3 89:7 90:6,14 91:9,16 93:7,17,18 107:13,17 111:14 116:2 118:12 124:5,7 128:23,24,24 130:5 131:1,2,8,12,15 132:19,25 133:11,20 134:11,12,19,21 136:3,15 137:25 138:1,8 146:22 148:10,17,19 152:13 155:2,2 158:13 160:11,19,19 161:14,15 162:16 165:20 166:17 168:21,22 169:20 171:4,8,9,15 172:9,21,21 173:8 174:9,21 176:7,8,22 177:22 178:20 179:9 180:13,15 182:24 183:10,13,16 185:9 186:3,4 188:25 191:19 193:4,25 194:3,4,4 200:8,12,19 201:9,15 203:21,21 204:1 205:25 206:2,21 208:23,23 209:10 210:17,18,19,23 211:15 212:19,20,23 213:1,6,7,21,22 214:4 knowledge (7)	9:14 10:7 26:22 95:19 127:9 132:8 166:24 knowledgeable (3)	56:10,17 112:9 known (7)	73:5 86:18,18 127:6 137:10 170:18 197:21 kooltherm (28)	11:12 23:7 30:9 31:2 36:5 66:2,7 67:5 81:3 87:17 94:17 97:4,17 101:13,22 102:7 103:12 105:10,13 113:8 120:21 122:6 125:15 140:18 141:1 142:7 203:2 204:18	L	labc (2)	22:21 53:15 laboratory (7)	50:22 83:20 148:19 150:23 194:25,25 195:2 lack (4)	182:3,20,21 190:13 ladder (2)	96:23 102:2 lady (2)	2:7 109:12 laid (1)	102:3 lamineate (1)	15:4 lamtec (2)	14:11,13 lane (1)	20:12 language (1)	29:16 large (10)	14:3 16:25 21:10 44:3,24 45:19 48:22 96:18 152:8 183:24 larger (2)	41:16 104:21 largescale (15)	7:18,22 9:14 13:12 19:5 21:12 30:22 41:18 42:17 43:22 45:24 46:10 73:13 149:23 168:4 last (9)	60:20 80:19 91:13 92:18,20 146:17 159:25 173:3 214:2 later (17)	26:5 40:3 55:19 58:2 68:24 71:12 90:10 101:2 111:16 131:5 166:9 170:2 183:21 188:15 208:19 210:8,10 latest (2)	66:9 172:12 latter (5)	6:4,22,23 54:25 185:6 launched (3)	40:20 41:11 131:23 layer (8)	15:4 69:22 70:8,13,16 71:4 113:22,24 layers (1)	70:15 lead (1)	43:3 leader (4)	4:11 7:8,9 42:25 leaders (1)	17:2 leading (1)	45:15 leap (1)	152:7 learned (1)	96:13 learning (4)	44:10 58:23,23 148:4 least (4)	5:17 117:14 189:7 192:19 leave (1)	57:3 leaving (5)	129:21 130:12 151:6,8 202:19 led (2)	93:10 123:6 lee (7)	101:3 103:25 206:25 207:7 208:18 210:9,20	left (4)	60:25 61:9 130:15 164:23 lefthand (4)	18:16 36:24 126:8 202:2 leg (1)	174:25 legal (1)	2:22 lemtec (2)	14:2,10 less (3)	23:16 25:5 123:1 let (8)	2:3,5 8:11 91:15 208:25 210:12,18 211:3 lets (22)	12:11 16:9 65:17 75:12 83:1 91:6 94:6,6 96:19 100:25 105:1 121:13 137:17 145:2 150:10 166:11 172:18 179:5,23 180:16 204:19 210:18 letter (7)	105:12 106:1 125:4,6,7,8,10 letters (3)	106:25 143:20 144:4 letting (2)	191:6,12 level (16)	24:14 62:3 76:7,12 81:5 96:25 97:20 101:21 103:14,23 104:8 133:1 148:13 154:6 205:8 213:22 liar (1)	186:23 life (6)	70:11,21 161:14 200:4 213:4,11 light (5)	61:24 108:12 151:6 154:11 201:8 like (40)	13:4 14:21 15:2 16:1 22:11 48:6 57:8 61:1 77:5 78:9 98:17 100:21 110:12 112:15 114:14 116:25 117:3 123:16 135:5 138:7,8 149:18 152:13 155:23 157:11 158:4,5 159:24 162:25 165:17 166:25 167:4 175:16 184:16 199:24 200:9 204:4,10 206:15 213:21 likely (5)	22:2 32:22 64:5 74:13 103:19 limit (1)	212:7 limitation (2)	103:22 104:6 limitations (5)	9:17 117:12,22,23 118:4 limited (13)	7:14 9:24 24:16,18 25:20,23 26:10 35:10 97:1 101:5 102:7 119:3 205:9 limits (2)	24:22 27:10 line (33)	3:6,9 6:14 10:16 17:11 18:15 27:8 32:4 46:2,16 47:4 54:2 59:22 60:1 67:5,6 73:21,23 78:13 79:25 91:11 96:18 119:24 133:7,17 135:13 159:9,17 193:3 198:3 205:2,5 212:14 lines (4)	84:20 103:9 124:15,16 lining (1)	131:24	linel (1)	77:6 linzi (1)	47:8 liquid (1)	15:17 list (3)	60:11 115:24 126:6 listed (5)	87:1 115:23 126:2 147:1 189:7 listened (2)	158:23,25 listening (2)	73:1 171:3 literally (1)	203:12 literature (15)	53:15 54:24,25 55:5,6,11,15 121:17 136:8,23 137:17,19 138:2,3 144:2 little (16)	12:25 19:16 20:3 31:23 40:3 54:20 60:8 129:21 130:12 135:14,16 144:2 165:25 166:2 186:2 199:25 load (1)	129:12 lobbied (1)	155:24 lobbying (1)	17:15 local (1)	201:7 log (1)	78:22 long (12)	4:2 25:1,13,17 28:7,9 33:5 75:9 137:25 151:17 206:21 209:4 longer (4)	106:25 169:18 170:14,16 look (101)	4:1 10:5 11:7,20 12:11,12 13:14 15:25 16:1,9,12 21:16 22:18 24:5 28:6 36:22 37:22 40:3 42:18 43:12 46:9 49:23 51:1,7,17 52:21 53:10,12 56:3 65:22 67:3,5 73:18,20 78:13 81:17 84:16 86:23 87:21 91:6,7 94:6 96:16 99:9 100:3,10,25 105:1 109:9 113:1 116:8,25 119:10 120:18 121:13,14 123:16 124:13,15 126:16 129:3 137:17 138:10 139:12 143:20 144:7 145:2,6 146:14 147:12 150:4,5,6 159:14 161:20,21 163:25 164:10 173:23 175:22 179:25 180:16 181:22 183:19 185:10 187:16 189:13,18 190:22,24 192:1,5 196:19,22 200:21 204:19 205:4 206:3 207:3,5 209:11 looked (14)	10:22 26:17 32:15 36:21 52:22 63:24 103:1 113:2,16,18 115:22 150:4 192:2 204:12 looking (52)	7:6 16:19 18:4 20:2 23:25 27:4,5 29:16 51:16 63:22 70:13 71:6,9 76:13 79:11 88:2 91:23 92:13 95:20 98:11 100:11,17 102:21

103:5 104:4,22 112:13 113:22 120:11 130:21 134:6,8 138:20 142:4 144:6 155:10 160:19,20 161:9 166:14 168:6 171:3 174:4 179:25 180:2 191:23 199:8 204:3 205:14 206:7 211:23 213:12 looks (3) 117:3 162:25 163:3 loosesic (1) 106:23 loss (1) 153:25 losses (1) 145:24 lot (24) 8:9 51:5 52:17 71:12 106:23,24,25 107:22 126:14 128:2 132:9 134:12 154:25 155:3 179:10 188:11 192:17 193:20,25 206:5,17 208:24 212:24,24 lots (4) 69:8 131:7 161:10 194:4 low (1) 96:25 lower (2) 77:7 198:23 lpcb (2) 62:22 192:15 lpsk (1) 78:10 lsc (1) 101:5 ltd (1) 30:1 ludicrously (1) 44:22 lump (1) 134:8 lunch (2) 114:5,9 lurch (3) 129:21 130:13,16 lurking (3) 120:14,16 121:19	135:13 138:4 144:23 159:9 176:21 193:3 212:14 managers (9) 43:2 46:2 47:4 52:3 128:9 157:14 198:3 199:19 213:15 managing (5) 7:21 8:3 58:14,15 159:5 manner (2) 137:13 163:17 mannon (1) 214:4 manufacture (3) 156:1 173:16 184:15 manufactured (8) 15:20 35:14 67:10,18,23 69:6 88:11 126:19 manufacturer (11) 33:17 37:8 38:4 67:19 68:11 69:7 104:1 134:18 194:24 195:3,9 manufacturers (14) 44:19,20,25 45:14,16 69:9 78:8 107:15 118:16,17 119:5 134:22 137:12 145:3 manufacturing (3) 19:12 33:18 126:18 many (17) 28:9,15 37:20 58:24 59:23 70:15 71:20 107:1 131:12 142:19 143:1,11 175:16 185:18 191:22,24 199:23 march (18) 11:10 22:17 25:19 28:14 30:3,21,23 32:5 91:8,10 105:17,24 106:7 137:20 140:2,7 207:4 208:18 marec (1) 33:17 marginally (1) 191:22 mark (7) 30:5 146:19 162:17 181:24 183:22 189:22 190:20 market (30) 17:2 39:20 42:15 44:24 48:18 58:7 67:1 69:17,18 88:23 108:14,20 110:19 117:13 120:3,10,15 126:2,20 134:20 143:8 144:9,17,20 146:6 165:16 177:10 178:6 181:4 199:1 marketing (19) 11:5,16 55:4,6 56:2 66:9 79:16,23 89:1 116:9 121:20 128:25 136:5,19 137:17 138:4 140:2 144:2 175:11 marketplace (22) 39:20 44:8 51:25 61:13 76:4 79:2 82:10 90:19 93:2 98:11 99:24 104:25 107:10 118:10,21 119:1 120:12 133:12 135:19 155:5 157:22 165:24 marking (1) 40:10 martin (26) 1:3,10,12 55:24 56:24	57:8,15,18 114:6,14,21,24 167:9,11,17,23 171:7,18 206:18,21 213:14,24 214:1,8,18,21 masonry (8) 80:22 101:18 143:6 146:1 165:1 207:24 208:3,12 matched (1) 53:1 material (32) 11:5,16 23:18 24:15 25:23,24 74:3 76:22 78:11 89:1 97:1 99:2 102:4 103:18 116:9 117:20 136:5,19 140:2 152:21 154:10,24 167:3 168:19 174:18 182:9,10 190:8 196:3,7,11 204:6 materials (21) 9:23 25:6 45:23 46:17 48:7 49:23 59:21 63:1 64:2 68:25 69:23 74:25 78:7,23 82:1 126:17 128:1 137:2 174:5 185:20 188:23 matter (2) 170:17 174:7 matthew (1) 198:9 maybe (13) 5:21 7:2 27:15 79:4 131:15,15 135:8 144:2 147:24 178:6 179:6 185:5 206:12 mean (36) 14:13 22:2 27:23 29:9 35:23 39:8 44:16 45:5 48:21,23 52:13 66:6 70:19,23 71:10 72:8 73:2,3 84:2 118:7 144:1 145:20 152:11 163:14 174:15 177:6 178:15 188:5 195:12 198:1 202:20,21 209:9 210:15,22 213:5 meaningful (1) 92:2 means (5) 14:11 15:14 24:1 39:9 106:25 meant (5) 13:1,2 93:2 97:12 99:24 meantime (1) 175:21 meanwhile (1) 196:2 measured (1) 23:17 measures (1) 25:14 mechanical (2) 62:24 123:17 mechanically (3) 67:10,12 205:2 meet (12) 24:18 25:25 26:6,10 101:19 129:16 138:13 142:5 143:24 148:7 173:19 205:15 meeting (27) 6:10 26:9 52:6 72:9,19 91:13 92:18,20,22 112:12 123:12 129:19 131:6,7,18,25 132:5,18 133:4 134:2 135:4,5 156:8 173:6 192:9 197:18,19 meetings (5) 5:19 6:8,17,25 173:13 meets (6) 70:4 84:22,23	141:22 142:8 205:10 mega (1) 30:5 megawatt (1) 81:6 melt (2) 23:18 204:7 melted (1) 163:20 members (2) 59:18 148:22 memos (1) 101:23 mentioned (7) 20:4 23:7 65:18 100:5 114:9 137:11 187:9 mentions (2) 99:4,11 meredith (32) 1:9,11,12,18,20 46:14 47:14 49:25 50:4 51:3,7,10 52:2,25 53:17,17 56:6,25 57:15 64:1 102:12 107:3 114:8,21 115:1 116:22 167:13,23 196:23 206:18 214:10 215:3 met (6) 62:16 89:20 95:14 97:14 107:21 205:18 metal (2) 100:14 101:16 metalwork (1) 152:6 method (8) 8:22 32:12 44:11 62:23 79:5 87:8 122:2 136:1 methodology (2) 37:9 203:4 methods (6) 13:4 29:19 34:13 39:21 136:3 141:5 meticulous (1) 36:8 metlcon (3) 72:10,23 100:14 metre (3) 76:10,11 97:20 metres (37) 17:24 28:15,19 29:1,16 53:14 54:5 58:8,20 85:10 96:22 97:17,25 98:15 99:2 101:25 103:12,21 104:6,18 117:21 118:8 120:15 121:23 122:21 135:9,23 136:11 138:15,22,23 139:25 141:25 143:2 145:20 194:8 212:6 metsec (6) 17:2 145:3,16 147:4,24 168:5 micron (4) 14:2 16:23 17:12 18:19 microns (2) 14:21,22 microphones (1) 2:10 middle (7) 52:23 67:18 68:10 84:17 86:12 103:8 145:8 might (34) 19:4 31:23 58:22 63:15,17,19,24 72:21 73:2 79:6 82:14 122:23 123:5,6 141:10 148:10 150:8 155:18 156:23 157:11 158:25 160:18,23 161:7 172:13 173:11 175:1 176:10 179:4 183:1 185:4 203:1 204:12 208:20	milchapsic (1) 43:1 millichap (5) 43:7,25 48:4,15 52:24 millichaps (3) 46:9 49:24 51:1 millimetres (2) 87:23 145:20 mills (9) 105:3,9,18,23 201:19 209:8,8,13 210:11 mind (3) 108:6 184:9 213:17 minds (1) 49:19 mine (1) 154:7 mineral (9) 25:6 119:15,19 163:16 168:12,15 174:20 175:9,11 minimal (1) 187:7 minute (2) 49:8 146:17 minutes (17) 161:25 162:3,6,6,10,12 163:4 164:2 170:4 182:15 190:4,7,10 206:16,19 210:8,10 misleading (4) 123:6 138:22 142:5 144:3 misrepresented (1) 110:19 mistake (1) 115:15 mix (1) 199:23 mm (5) 67:9,9,9,11 141:13 mmhm (6) 4:13 38:14 47:21 80:20 103:16 160:2 modifications (1) 172:12 modify (1) 167:2 moment (16) 15:24 22:11 56:22 75:24 81:18,21 83:2 104:2 114:4 127:19 129:3 134:13 165:7 167:7 179:14 195:24 moments (1) 60:24 momentum (1) 212:24 monday (1) 1:1 money (5) 52:17 90:22 95:10 148:18 161:10 monies (2) 79:4 90:4 monitored (1) 41:1 monitoring (2) 38:18 84:12 month (3) 91:14 92:19,20 monthly (11) 6:10,17,25 116:17 156:7 196:20,25 197:2 198:4,5,11 months (2) 89:10 184:18 moorebick (26) 1:3,10,12 55:24 56:24 57:8,15,18 114:6,14,21,24 167:9,11,17,23 171:7,18 206:18,21 213:14,24 214:1,8,18,21 more (50) 12:25 17:18 19:6 20:3 24:14 35:13,14 46:25 55:22	56:6,10,12,17,19 60:9 62:12 64:4,15 72:16 74:12 79:14,15 80:6 87:15 89:22 90:3 100:5 106:24,25 107:15 108:12 123:3,19 127:15 131:12 132:14,18 134:12 135:16 137:8 143:6 144:3 154:17 155:22,23 170:2 187:14 198:2 213:7 214:11 morning (6) 1:3 2:4 33:15 113:7,19 137:12 mortar (2) 30:2,21 most (8) 40:21 77:23 103:19 112:17 156:14 160:5 170:3 203:16 mounting (1) 83:24 move (12) 33:13 98:20 120:2 131:4 144:6 158:14 163:8 169:2 192:16 193:9,20 210:17 moved (5) 36:5 129:20 130:11 146:16 150:14 moving (8) 16:25 21:10 68:23 102:25 118:24 140:15 167:8 168:2 mpeg (1) 61:2 ms (24) 1:7,8,15,17 55:19 56:1,21 57:19,20 114:3,25 115:1 167:6,10,25 168:1 171:10,19,20 206:14,22 214:2,6,8 much (25) 1:12,22 23:20 49:1 54:22 57:18 63:11 72:16 79:13 91:25 102:24 109:23 114:7,24 129:6 147:15 149:3,8 160:21 166:9 167:17 187:11 204:4 214:18,21 multi (1) 141:24 multitude (1) 71:14 municipal (1) 119:25 must (8) 58:8 66:16 94:25 95:8 96:24 97:19 102:2 103:13 myself (20) 8:13 42:25 46:1 47:6 53:17 60:23 61:7,11 71:5 72:9 118:1,23 131:5,19 147:23 174:8 182:23 185:17 189:5 201:23	necessary (3) 47:17 90:22 196:6 need (30) 2:2,5 12:1 18:12 25:24 31:19 45:12 52:5 92:2 107:14 118:15 121:23 130:22 131:15 134:11 154:25 156:15 165:20 169:20 170:10 172:9 176:23 182:25 186:20 191:1,14 192:3,11,25 194:14 needed (24) 9:24 11:2 26:10 39:21 48:25 61:16 72:17 78:24 82:2 90:8,13 107:12 119:2 120:6 133:8 136:12,15 146:4,6 160:21 166:18,20 193:7,8 needs (4) 58:8 174:23 175:15 177:10 negative (6) 107:23 135:12 159:3,4 166:2 199:25 netherlands (1) 34:6 never (14) 26:4,6 85:17 93:23 99:20 100:22 103:1 109:17 111:22 112:2,7 155:24 165:23 186:21 newer (1) 197:8 news (3) 61:11 156:20 176:20 next (21) 14:4 47:12,12 51:1 86:14 87:13 97:3,16 103:8 105:16 125:23 145:17 150:19 162:5 167:8 177:8 178:3 183:19 186:14,16 190:22 nhbc (1) 200:25 nightmare (3) 176:7 177:6 178:8 ninth (2) 137:18,20 nobody (4) 106:18 166:7 211:6 213:5 nods (1) 116:13 noncombustible (57) 21:24 45:10,11 49:3,5,13,15 59:5,6 63:16 64:3,10,14 67:16,17,19 69:12,14,16,22 70:8,13,15,16 71:6,10 74:10,15 77:2,3,13 91:1 93:5,6,10 102:5 111:15 113:22,23 129:13,15,17 130:24,25 136:20 137:1,4,6 141:13,19 142:18 147:7 164:20 168:22 174:20 204:4,15 none (1) 136:5 nonload (1) 141:5 nonproprietary (1) 139:18 normal (2) 182:14 190:9 normally (4) 31:19 149:6,7,7 note (11) 2:9 8:24 9:2,2,5 29:18 81:13
M						
N						
n (1) 37:22 naively (3) 71:6,9,11 naked (4) 22:11 87:1,15 162:23 name (8) 1:19 33:22 34:5 63:6 65:23,25 115:24 145:10 named (1) 33:17 national (2) 3:23 41:14 native (1) 18:13 nature (2) 178:1 212:21 near (1) 143:14 necessarily (2) 39:8 42:14						

121:19 139:1 153:14 195:4 nothing (3) 34:14,15 157:5 nov (1) 7:9 november (7) 1:1 4:11 13:16,25 77:20,22 214:25 number (25) 1:5 7:19 14:20 36:11 47:25 48:24 66:1 73:15 76:8 80:12 86:9,25 90:23 91:24 103:1 106:3 107:17 116:11 125:13 131:8 180:13 183:8 188:9 195:1 207:9 numbers (2) 171:12 188:15 numerous (4) 129:9 132:10 158:19 212:18	186:6 188:6,17,19 189:12,19,23 191:2,6,12,15 192:10,14 193:1,8,10 196:15 197:22 213:21 offsites (1) 194:21 often (5) 6:2 51:19 52:5 174:19 195:2 oh (5) 45:8 105:5 146:24 163:2 211:25 okay (60) 2:23 5:6,25 11:18 13:5 14:17 16:8 17:15 28:5 29:14 33:5 34:14 35:5,7,12,15 40:17 42:11 50:18,25 53:25 57:7 72:11 76:2,18 91:5 112:21 114:13 115:18 116:3,6 117:2,6 118:2 129:1 138:5 139:9 143:25 144:4 146:24 154:8 159:8,10 161:3 166:8,18,22 167:6 179:22 180:16 183:18 194:23 197:25 198:10,15 201:16 206:4,16 214:6,17 old (49) 3:16 34:20,25 35:9 36:17 66:14,22 87:25 88:4,11 124:11,20 127:8 128:16 151:5,23 154:8,15 162:20 165:18 175:25 176:1,11,20,22,24 177:7,17,24 178:3,5,14 180:5,6,10,11,20,23 181:2,5,11 186:9 187:4 188:25 191:8,21 196:6 197:6 199:11 oldprocess (1) 176:14 once (10) 29:21 51:17 53:15 127:15 163:23 170:1 172:19 195:6 201:12 210:1 onehour (1) 79:21 ones (5) 75:17 82:9 116:19 203:15 211:2 ongoing (3) 40:1 98:6 179:6 online (1) 184:19 onstream (1) 125:1 onthejob (1) 8:22 onto (5) 68:5 83:22,25 145:23 146:1 onwards (1) 127:7 op90 (7) 169:21 172:5,10,11 181:7 188:12 198:21 open (4) 160:22 186:5,12 187:10 opened (1) 30:7 opening (1) 182:19 operating (4) 36:14 37:5 125:3 195:4 opinion (2) 160:20 200:15 opinions (2) 135:14 200:2 opportunities (1) 117:13 opportunity (1) 118:24	opposed (5) 13:3 68:22 74:10 78:16 80:23 opposite (1) 171:12 optimum (1) 148:4 option (1) 209:24 order (9) 25:22 65:7 85:13 94:25 101:15 144:16 146:4 165:3 201:6 ordered (1) 68:1 original (2) 89:25 111:19 originally (4) 109:19 146:16 168:10 207:4 originated (1) 34:6 others (5) 51:8 57:2 60:16 174:21 175:14 otherwise (2) 76:13 186:21 ought (1) 185:16 outcompeting (1) 119:19 outer (13) 49:13,15 67:21 68:2 69:4,22 70:8,15,16 71:4 81:5 113:22,24 output (3) 197:8 198:23 199:15 outside (8) 69:13 70:14 71:7 81:10 96:6 113:24 154:23 174:8 ovens (5) 35:25 36:1,1 152:17 161:2 over (34) 18:24 32:15 45:20 53:14 54:5 63:10 85:9 87:13 89:8 96:22 97:25 98:15 101:25 103:21 104:6,18 106:13 109:14 120:15 126:10 128:21 135:22 143:2 150:19 152:8 169:15 183:20 190:20 192:5,8 194:8 208:19 212:6,16 over18metre (1) 144:20 overall (1) 42:21 overcladding (3) 110:17 111:2,4 overlooked (1) 211:25 overly (1) 152:24 overseen (1) 47:16 oversight (3) 112:8 115:11 136:24 own (10) 55:24 84:23 98:8,9 142:5 150:21 153:3,7 170:4 175:19 owned (1) 33:11 ozone (2) 66:8,12	29:24 42:20 43:13 47:12 49:24 51:1 52:1,21 53:12 54:4 56:4 59:16 60:20 61:6 73:20 78:14,16 84:16 89:12 95:24 96:16,18 100:3 101:10,24 103:9 117:7 120:18 124:14 125:11,16,23 126:13,16 129:5 145:14,17 147:14 151:1 156:11 171:23 173:3 187:18 193:22 194:20 197:5 200:23 paragraphs (4) 23:10 25:17 113:6 153:14 pargeter (5) 56:1,1 73:19 76:19 125:5 part (33) 6:22,23 23:17 24:19 25:25 26:4 35:3 38:10 40:5 47:5 61:5 62:16,22 64:7 77:7 81:13 84:21 85:11 89:25 97:5 98:3 101:5 102:4 103:25 107:13 125:19 140:3 143:21 146:7 171:12 175:5 202:2 207:11 partially (1) 152:14 participant (1) 125:18 particle (15) 67:9,15,17,23 68:5 69:6 73:24 74:10,22 75:20 76:21 136:7,22 137:3 205:2 particles (1) 75:21 particular (10) 40:14 54:1 59:19 62:16 69:6 82:7,21 84:11 91:23 178:21 particularly (2) 47:17 153:2 particulars (1) 137:2 partly (1) 121:21 partnership (2) 145:3 169:3 parts (4) 47:1 62:19 129:10 132:3 party (2) 105:15 200:3 pass (17) 62:9 65:7 94:24 100:9 103:19 140:11 143:23 144:10 176:1 182:8,25 187:1,21 190:18 192:10 195:15 209:25 passages (2) 46:7 116:19 passed (4) 110:21 112:16 151:5 193:4 passes (1) 180:5 passfail (5) 52:6 95:14 112:14,23 123:8 passing (6) 19:4 147:17,21 148:11,23 175:5 past (5) 110:20 125:21 138:9 150:15 174:8 pattern (2) 149:5 184:4 pause (29) 1:14 14:15 29:5 57:10 90:18 92:12 103:24 108:3 114:16 116:21 122:18 123:9 128:20 132:24	135:10 137:23 142:20 143:19 156:22 160:25 167:18 177:15 178:19 179:2 183:6 191:9 201:14 208:7 214:20 pausing (1) 24:8 pay (3) 90:4,4 95:9 pembridge (7) 37:11,13,18 38:5 42:8 124:11,18 pentane (7) 15:10,14 16:2,6,22 17:11 88:12 people (20) 29:8 44:20 47:9 54:6,11 57:5 58:24 60:11 81:24 95:17,17 108:8 137:12,14 160:9,11 166:14 193:18 194:5 212:25 per (3) 14:25 15:1 81:12 perforated (14) 19:9,12 35:20 36:5,19 37:2 42:3,8 66:20 150:1,3 156:3 173:4,12 perforations (8) 35:17 153:17,21,25 154:4 155:12,21 156:5 perform (4) 32:22 72:5 194:18,19 performance (53) 8:10 17:16,20 22:8 26:6 27:20 30:11 33:1 39:17 62:24 94:17 101:14 113:23 120:5 123:17 127:11 132:15 140:16 141:4,23 151:23 152:2,18 155:13 156:4 157:10 158:1,21 165:4,10 169:17 170:16,22 178:13,18 181:2,11,21 182:4,21,22 183:10 184:8,11 185:19,21 186:7 190:14 199:10,21 200:15 202:9 204:21 performed (19) 17:1 33:6 54:13 58:24 79:20 128:3,4,6,7,7 132:21 143:8,10 146:1,21 156:21 157:4 170:3 203:20 performing (6) 20:16 129:11 159:24 163:13 166:6 200:5 performs (4) 137:15 145:23 158:8,9 perhaps (10) 12:11 55:22 71:6,9,11 90:21 128:25 186:3 188:8 189:13 period (2) 6:24 196:22 permarock (3) 9:9 30:24 33:11 permitted (1) 206:14 person (1) 74:19 personally (3) 32:14 90:6 121:4 personnel (1) 132:10 persons (1) 112:23 perspective (2) 6:12 152:25 peter (2) 58:16 159:7	pf (1) 187:5 pfs (2) 106:24 173:5 phased (1) 128:16 phenolic (52) 10:23 16:17,19 23:8,20,22 27:25 29:10 30:1,9,12,14,20 31:3,5 33:19 34:16 37:9,10 40:22 45:5 66:2 101:14,18 107:19 120:1,6 126:21 150:21 151:3,14 152:2,9,12,16,19 153:2,17,21 156:14 157:8 162:21 168:12 169:21 172:10 173:5 187:5 188:3,5,7 191:18 198:21 phil (34) 20:24 22:20 50:21 61:11,23 63:9,10,10 72:9 77:22 78:3 128:12 131:5,14 135:5 147:5,25 160:5,18 161:5 174:21 175:14 182:23,24 183:1 185:17 187:12 193:3 198:18 208:23,24,25 209:5 210:14 philip (60) 4:19 5:13 6:14 13:17,21 38:9 39:5 40:5,15 43:1,25 44:2 45:18 47:6 48:11,12,15 53:10,24 58:12 60:1,3,15,23 61:8,15,20 63:2,19 71:5 115:22 127:14 131:19 149:1 156:19 157:8 158:3 169:11 170:19,25 173:25 180:19 181:19 182:1 183:20 185:2 186:15 187:23 190:21,23 192:2 195:22 196:21 197:1,17 207:5 208:17 210:5 211:11 212:8 phis (1) 186:1 phone (1) 186:19 photo (1) 164:14 photocopy (1) 106:18 photograph (5) 75:12,13 76:1 162:19,19 photographs (4) 75:14 161:19,20 163:10 photos (4) 88:2 163:23 164:1 168:6 physicalfire (2) 38:11 40:6 pick (3) 81:20 119:23 125:11 picked (1) 85:9 picks (1) 129:7 picture (5) 101:12 134:10 163:14,15 170:3 pictures (7) 80:17 100:7 107:20 151:11 154:22 164:6 165:3 piece (1) 185:15 pigeonholed (3) 24:20 27:9,22 pink (1) 154:23	pioneering (1) 157:3 pir (3) 10:20 120:3 167:2 place (13) 32:19 37:13 59:10 60:7 61:19 64:6 69:3 120:3 126:2 132:19 173:7 200:4,19 places (1) 14:21 plain (1) 185:13 plan (2) 14:6 21:8 planned (1) 83:15 planning (2) 14:3 42:22 plans (6) 47:16,23 50:1,5,11,14 plant (1) 34:5 plastic (1) 117:15 plausible (1) 204:9 play (3) 151:24 152:14 212:10 please (37) 1:9,19,25 2:3,5 15:9 57:1,3,9,11 60:21,22 61:6 78:5 80:17 91:15 94:18 101:11 105:12,20 106:9 114:10,12,15,17 121:19 122:2 151:11 167:14,14,19 175:24 177:19 180:5 214:14,15,22 pleased (1) 152:24 pm (5) 114:18,20 167:20,22 214:23 pointed (1) 130:23 policy (2) 211:20,22 political (1) 187:25 poor (1) 181:20 portfolio (1) 39:23 posed (2) 134:24 179:17 position (10) 3:7 56:12,18 65:1,7 133:19 148:1,5 198:25 200:21 positions (1) 65:5 positive (3) 119:13 135:17 157:12 possibility (2) 155:16 173:14 possible (8) 49:1 71:23 92:15 133:9 160:22 172:16 193:14 195:25 potential (3) 16:19 66:8,13 potentially (10) 59:23 71:14 79:3 92:1 134:7 155:19 156:24 161:10 165:9,22 ppds (7) 10:11 37:24 38:7,10,15 40:5 173:8 practical (1) 9:15 practice (5) 46:21 51:15 65:14 74:13 184:15 practisesic (1) 106:3 precise (1) 132:18 precisely (1) 73:17 precursor (1) 9:3 predates (1) 203:7 predict (1) 72:4 predicted (1) 91:16 predominantly (3) 13:2 42:1 55:2 preferably (1) 61:2 preference (1) 144:11
objective (1) 120:9 obscuration (1) 23:16 observations (1) 153:12 obtain (5) 39:18 41:7 91:20 129:9 131:23 obtained (2) 16:24 144:15 obtaining (1) 201:19 obviously (22) 26:17 62:6 69:20 91:3 117:21 128:14,22 130:21 148:3 152:1 154:3,18 157:24 161:8 166:15 171:14 174:16 187:5,12 188:3 193:18 203:24 occasion (2) 57:2 178:16 occasions (5) 103:1 129:9 142:19 158:19 212:18 occupied (1) 144:21 occurred (2) 72:20 196:14 oclock (4) 114:12,17 214:14,21 october (6) 4:9 125:7,11 202:1,4 203:19 od90 (1) 187:5 odp (2) 66:2,12 offended (1) 175:17 offer (3) 17:17 19:6 61:4 offered (5) 66:25 86:16,20 88:17 89:3 office (2) 5:20,23 official (4) 46:25 94:24 111:13 159:17 officially (2) 61:25 99:4 offsite (56) 89:24 94:8,9,13,14 97:24 98:7 104:22 131:20,23 132:21,22 134:7 140:13 169:3,18 170:4,5 171:20,23 172:2 174:4,7,9,16,18,25 175:3 176:12,14 177:14,24 178:6 179:5 181:20,24 185:16	oh (5) 45:8 105:5 146:24 163:2 211:25 okay (60) 2:23 5:6,25 11:18 13:5 14:17 16:8 17:15 28:5 29:14 33:5 34:14 35:5,7,12,15 40:17 42:11 50:18,25 53:25 57:7 72:11 76:2,18 91:5 112:21 114:13 115:18 116:3,6 117:2,6 118:2 129:1 138:5 139:9 143:25 144:4 146:24 154:8 159:8,10 161:3 166:8,18,22 167:6 179:22 180:16 183:18 194:23 197:25 198:10,15 201:16 206:4,16 214:6,17 old (49) 3:16 34:20,25 35:9 36:17 66:14,22 87:25 88:4,11 124:11,20 127:8 128:16 151:5,23 154:8,15 162:20 165:18 175:25 176:1,11,20,22,24 177:7,17,24 178:3,5,14 180:5,6,10,11,20,23 181:2,5,11 186:9 187:4 188:25 191:8,21 196:6 197:6 199:11 oldprocess (1) 176:14 once (10) 29:21 51:17 53:15 127:15 163:23 170:1 172:19 195:6 201:12 210:1 onehour (1) 79:21 ones (5) 75:17 82:9 116:19 203:15 211:2 ongoing (3) 40:1 98:6 179:6 online (1) 184:19 onstream (1) 125:1 onthejob (1) 8:22 onto (5) 68:5 83:22,25 145:23 146:1 onwards (1) 127:7 op90 (7) 169:21 172:5,10,11 181:7 188:12 198:21 open (4) 160:22 186:5,12 187:10 opened (1) 30:7 opening (1) 182:19 operating (4) 36:14 37:5 125:3 195:4 opinion (2) 160:20 200:15 opinions (2) 135:14 200:2 opportunities (1) 117:13 opportunity (1) 118:24	opposed (5) 13:3 68:22 74:10 78:16 80:23 opposite (1) 171:12 optimum (1) 148:4 option (1) 209:24 order (9) 25:22 65:7 85:13 94:25 101:15 144:16 146:4 165:3 201:6 ordered (1) 68:1 original (2) 89:25 111:19 originally (4) 109:19 146:16 168:10 207:4 originated (1) 34:6 others (5) 51:8 57:2 60:16 174:21 175:14 otherwise (2) 76:13 186:21 ought (1) 185:16 outcompeting (1) 119:19 outer (13) 49:13,15 67:21 68:2 69:4,22 70:8,15,16 71:4 81:5 113:22,24 output (3) 197:8 198:23 199:15 outside (8) 69:13 70:14 71:7 81:10 96:6 113:24 154:23 174:8 ovens (5) 35:25 36:1,1 152:17 161:2 over (34) 18:24 32:15 45:20 53:14 54:5 63:10 85:9 87:13 89:8 96:22 97:25 98:15 101:25 103:21 104:6,18 106:13 109:14 120:15 126:10 128:21 135:22 143:2 150:19 152:8 169:15 183:20 190:20 192:5,8 194:8 208:19 212:6,16 over18metre (1) 144:20 overall (1) 42:21 overcladding (3) 110:17 111:2,4 overlooked (1) 211:25 overly (1) 152:24 overseen (1) 47:16 oversight (3) 112:8 115:11 136:24 own (10) 55:24 84:23 98:8,9 142:5 150:21 153:3,7 170:4 175:19 owned (1) 33:11 ozone (2) 66:8,12	P pack (5) 53:17 106:8 198:8,16 210:11 pages (1) 106:19 panel (5) 15:9 64:3,14 71:13 91:2 panels (5) 64:9,10 137:13 140:4 168:4 paper (6) 24:23 51:19 95:25 145:9 181:1,10 paragraph (62) 4:1,6 10:6 12:3,9,11 16:16,17 21:8,17 23:4,11 24:5 27:5 28:6	29:24 42:20 43:13 47:12 49:24 51:1 52:1,21 53:12 54:4 56:4 59:16 60:20 61:6 73:20 78:14,16 84:16 89:12 95:24 96:16,18 100:3 101:10,24 103:9 117:7 120:18 124:14 125:11,16,23 126:13,16 129:5 145:14,17 147:14 151:1 156:11 171:23 173:3 187:18 193:22 194:20 197:5 200:23 paragraphs (4) 23:10 25:17 113:6 153:14 pargeter (5) 56:1,1 73:19 76:19 125:5 part (33) 6:22,23 23:17 24:19 25:25 26:4 35:3 38:10 40:5 47:5 61:5 62:16,22 64:7 77:7 81:13 84:21 85:11 89:25 97:5 98:3 101:5 102:4 103:25 107:13 125:19 140:3 143:21 146:7 171:12 175:5 202:2 207:11 partially (1) 152:14 participant (1) 125:18 particle (15) 67:9,15,17,23 68:5 69:6 73:24 74:10,22 75:20 76:21 136:7,22 137:3 205:2 particles (1) 75:21 particular (10) 40:14 54:1 59:19 62:16 69:6 82:7,21 84:11 91:23 178:21 particularly (2) 47:17 153:2 particulars (1) 137:2 partly (1) 121:21 partnership (2) 145:3 169:3 parts (4) 47:1 62:19 129:10 132:3 party (2) 105:15 200		

preparation (1) 47:15	120:13 124:18,20	promising (1) 130:3	q (736) 1:21	87:5,9,12,18,20	183:3,18 185:12,23	raise (2) 179:15,19
prepare (1) 47:23	145:10	promote (2) 108:14	2:16,18,20,23	88:5,10,15,25 89:5	186:5,12,14 187:15	raised (3) 158:19
prepared (3) 134:4	producers (1) 120:3	136:3	3:4,9,12,14,16,18,22,24	90:14 91:5,19	188:2,11,17,20	205:21 212:18
145:6 212:4	producing (5) 33:19	promoted (3) 4:21 5:11	4:6,11,14,17,19	92:7,14,17	189:2,6,10 191:5,11	raising (3) 127:18
preparing (2) 98:8,9	37:10 54:22 152:6	82:15	5:6,10,14,16,18,22,25	93:3,9,15,19	192:1 193:5,13,16,24	158:18 179:19
preprint (1) 206:1	195:9	promotional (1) 121:17	6:5,7,13,17,21,23	94:1,3,5,12,23	194:7,10,20	ralph (2) 200:8 214:4
presence (1) 160:10	product (136) 8:17 9:11	prompt (1) 109:15	7:3,5,15,17,21,24	95:5,12,21	195:15,18,21	ran (1) 82:10
present (15) 43:18,18	10:11,18,20 11:1	proofreading (3) 138:3	8:7,16,20	96:10,13,16	196:14,19	range (5) 25:4 34:19
59:9 74:20 108:11	12:8,14 13:8,11 14:14	203:11,12	9:1,5,10,12,19,22	97:11,15,23	197:3,12,16,21,25	40:22 79:8 92:10
115:24 118:9,20	16:5,20,22	proper (1) 185:24	10:2,5	98:3,12,19,24	198:4,10,13,19	rare (1) 62:7
119:14 134:9,20 138:6	17:10,16,20,24	properly (3) 98:16	11:4,12,15,18,20	99:9,14,16,25	199:4,12,19	rated (2) 23:13 74:11
146:11 198:2 202:15	18:2,24 19:2,6	204:13 206:7	12:1,9,24 13:5,7,13,25	100:2,17,25 101:8	200:3,11,14,17,21	rather (4) 4:23 8:11
presentation (1) 96:12	20:17,21 22:2 23:5	properties (5) 86:10,12	14:10,14,17,20	102:18,23 103:3,7,17	201:4,12,16,22,25	194:24 196:9
presented (1) 59:22	24:17,22 25:20	87:13,23 128:3	15:3,5,14,17,20,24	104:2,10,16 105:1,6	202:7,13,19,24	ratified (1) 62:6
presenting (2) 50:14	27:7,11 28:8,14 30:3	proportion (1) 44:24	16:5,8,16	107:18,24	203:3,8,18,23	raw (1) 126:17
194:13	31:10 32:5 35:13 36:2	proposal (1) 209:16	17:5,8,10,22,24	108:6,13,17,19,22	204:3,14,19	rd (4) 37:24 166:14
press (2) 115:5,9	38:15,19,25 39:22,25	propose (4) 78:19	18:2,6,9,19,22	109:6 110:4,25	205:1,14,18,21 206:8	169:22 172:10
pressing (1) 196:8	41:11 45:8 48:23 52:5	122:5,13 207:17	19:1,7,9,15,19,21,25	111:5,21	207:3 208:2,11,14,17	reached (2) 62:11
pressure (2) 135:21,24	53:14 65:24 66:9,25	proposed (2) 30:11	20:10,12,20,22,25	112:3,13,19,22	209:2,7,11 210:8,21	123:18
pretty (2) 102:24	79:3,7,23 82:15,23	208:5	21:2,5,7,15	113:1,12,16,21	211:2,8,10,13,18	reaction (2) 156:19
111:18	83:21 84:21 85:23	proposing (3) 16:2	22:6,10,14,16,25 23:4	115:18,20	212:2,4,8,13,22	197:9
prevent (2) 51:20 204:8	86:11,13,15 87:24	77:24 122:4	24:5,12 25:17,22	116:3,6,14,18	213:3,9	reactionary (2) 174:9,16
preventative (1) 25:14	88:16 101:16 105:15	proprietary (1) 28:10	26:4,9,13,20	117:2,4,6,24	qualification (2) 3:19,22	reactions (1) 156:23
previous (9) 8:23 9:1	120:4,6 124:19 125:25	prospective (1) 89:16	27:3,17,22	118:2,4,11,20,25	qualified (1) 112:24	reactors (1) 184:16
24:9 124:5,6 147:6	126:1,20	protect (1) 23:21	28:3,5,13,17,23	119:6,9,22 120:13	qualify (2) 54:21 141:10	read (16) 2:16 24:5
151:4 182:10 209:5	127:1,2,11,12,25	protection (1) 110:15	29:1,4,8,12,14,20,23	121:7,10,13 122:13,22	quality (3) 23:25	52:14,18 60:21 95:18
previously (4) 42:6 65:2	128:11,18 133:11	prove (2) 31:21 199:9	31:1,3,6,8,12,14,17,22	123:5,15,23	38:22,24	96:19 101:10 107:25
113:2 192:20	135:20 137:19 138:18	proven (2) 155:24	32:1,10,13,17,19,21	124:3,8,10,24	queries (2) 123:24	116:23 120:20 155:11
primarily (3) 51:3 64:6	141:22 142:5,14	180:24	33:2,5,8,10,12,22,24	125:4,10	136:25	156:12 203:9,18
138:4	143:1,7 145:23	provide (13) 10:17 48:4	34:5,8,14,16,21,23	127:1,10,14,17	question (28) 2:1 12:13	207:16
primary (4) 9:23 53:18	149:12,15 155:1 156:1	53:20 108:22 170:1	35:3,5,7,12,15,19,23	128:6,9,17 129:1	26:8 53:25 55:22	reader (3) 122:23 136:9
54:7 201:19	159:24 160:16,17	176:1,11	36:4,8,15,17,21	130:9,15 131:17	70:19 86:20 87:9	165:3
principal (1) 63:8	165:15,17 166:11	177:3,4,5,17,24 178:5	37:6,16	132:22 133:4,15,22,25	89:14 98:2 102:12	readers (1) 123:6
principally (1) 104:12	170:9,23 172:3,6,23	provided (10) 2:11 25:3	38:3,15,18,22,24	134:16,24 135:7,21	104:17 110:21 115:3	readily (3) 29:19
printed (1) 5:9	177:11,21 179:5 182:4	29:9 53:4,13 54:5,7	39:3,10,14 40:2,13,17	136:4,10,18,25	117:19,24 123:18	155:22,23
printout (1) 62:1	185:13,14 186:9,24,25	55:3 85:21 177:13	41:2,4,9,14,16,20,23	137:5,10,17	134:24 155:6 166:4	reading (7) 24:7,13
prior (7) 34:9 42:4	187:19,20 188:24	providing (8) 47:16	42:3,7,9,11,13,16	138:5,10,18,20	169:17 177:19 187:18	52:3 98:13 123:19
49:10 58:22 63:9 85:5	189:1 190:14 192:19	53:18 99:16 176:8,14	43:7,11,17,21 44:1,13	139:1,4,6,9,18,24	188:25 191:10 196:25	177:22 179:3
205:22	194:18,25 195:5	177:21 178:2,24	45:4,8,14,17,23	140:2,7,9,15	213:9 214:3	ready (2) 57:15 114:21
priority (1) 181:6	196:10,16 197:8	provision (2) 53:14	46:3,6,20,24	141:10,17,21	questionable (1) 92:16	real (7) 25:7
privileges (1) 122:1	198:24 199:5 204:4	111:7	47:2,5,9,11,22	142:4,13,17,25	questions (21) 1:16,25	70:11,11,21,21 71:8
privy (1) 171:14	205:10,15,19 207:22	proviso (1) 49:7	48:4,9,11,13	143:4,11,14,17,25	2:25 8:14 10:8 85:22	157:2
probably (14) 21:1 29:6	208:2,11 213:4,11	proximity (1) 65:9	49:4,8,12,17,21	144:4,6,14,19	109:19 118:13	realised (3) 71:25
37:4 40:11 56:22 63:8	production (19) 3:6,9	prudent (1) 90:11	50:8,15,18,25	145:1,13,22	133:6,24 153:5 183:3	137:14 206:10
68:3 117:25 152:22	10:11 35:21,23	public (5) 1:22 125:18	51:14,23	146:9,14,25	192:17 193:17,21	realising (1) 213:10
166:10 171:13 195:5	36:9,11,12 83:18,19	165:9 201:5 212:5	52:1,7,10,13,20	147:8,10,20	194:5,7,10 211:20	realistic (4) 47:19 48:16
203:6 206:6	124:10 149:15 177:7	publication (5) 24:24	53:7,9,24	148:2,8,13,16,21	214:11 215:4	99:24 108:8
problem (7) 15:8 39:7	178:2,8 188:8,9,15	25:3 120:17 205:22	54:1,14,17,20	149:1,11,13,17,20,23	quicker (1) 197:7	reality (1) 93:2
111:7,23 167:16	195:3	209:17	55:5,8,13,15 56:16	150:1,4,19	quickly (5) 29:18	really (40) 6:3 42:10
170:15 196:5	products (16) 24:24	publications (1) 94:21	58:5,9,15,17,21	151:1,10,21 152:4	151:22 160:12 206:3,4	44:8,12 51:8,20 55:7
problems (5) 36:1	27:2 30:11 34:16	publish (1) 206:2	59:7,9,14 60:1,4,15,20	153:1,8,11,20,25	quite (17) 13:9 41:7	63:14 89:22 109:20
169:12 173:25 179:20	35:11 39:12,15 40:10	published (6) 32:2,7	61:14,19	154:3 155:6,10,17,21	62:2 70:5 86:19 88:13	115:11,17 131:1
213:4	45:9 51:22 66:11	96:1 102:10,15 209:22	62:5,10,15,19,24	156:4,10,19	128:15 131:7 153:9	134:17 135:6 136:3
procedure (3) 36:14	120:12 126:21	publishing (1) 95:25	63:1,5,7,14,17,21	157:1,7,14,19,24	154:25 160:22 163:19	138:9 142:13 144:24
37:5 195:4	157:13,13 184:8	pulled (2) 27:13 49:18	64:13,20,24	158:6,17,21,23	176:24 177:20 202:24	148:1 152:24 155:24
procedures (1) 125:3	programme (1) 168:10	purchase (1) 37:8	65:3,7,11,13,16	159:2,6,8,10	209:10 210:25	158:7,16 160:21
process (23) 10:11	progressed (2) 91:14	purchases (1) 179:6	66:6,10,14,17,20,24	160:3,8,14,23		161:11 166:20 167:5
33:19 36:5	92:21	purely (4) 87:8,10 112:8	67:3,15,21	161:3,5,17	R	168:24 172:22 174:22
38:15,22,24 40:9 41:1	project (15) 4:11,15,24	123:12	68:1,7,10,13,15,20	162:3,9,16,24		175:18 179:11 185:24
47:16 83:9 84:5	5:1 7:8,9 8:1,3 38:3,9	purpose (6) 12:4,20	69:2,16,19	163:2,4,6,9,13,18,22	raging (2) 150:14	194:1 195:17 205:25
122:24 128:12 175:25	42:25 43:21	24:24 31:18 58:17	70:5,10,17,25	164:5,9,14,22,25	156:21	211:1 213:6,17
176:2 177:18,24 178:2	145:14,15,25	117:17	71:2,9,16,19,24	165:7,13 166:4,8,22	railing (2) 67:11 141:14	reason (11) 79:10
180:5,20,21,23,24	projectmanaged (1)	purposes (2) 32:11 68:8	72:3,7,19,24	168:8,11,14,16,20,25	rain (2) 101:16 110:16	100:13 109:2 113:21
processes (1) 126:18	43:14	push (5) 120:9,11	73:1,7,10,13,17 74:19	169:2,14,25	rainscreen (26)	115:5,9,19 182:11
processing (3) 176:7,21	projects (6) 4:22 55:20	172:18 193:12 194:4	75:2,7,11,19,23	170:14,21,25	11:12,22 12:7 13:2	184:20 190:11 209:3
184:14	105:11 198:14,20	pushed (1) 150:15	76:5,8,13,16,18	172:2,5,9,17,23	44:18 66:2 76:2 82:14	reasons (3) 19:12
procured (1) 128:15	201:7	pushing (6) 120:2,4	77:1,4,9,18 78:2,12	173:2,17,21 174:15	101:14 112:6 113:14	195:25 196:9
procurement (1) 188:22	promaseal (2) 79:19	127:24 148:18 192:9	79:6,14,24 80:8,16,21	175:3,10,13,20	117:15 120:3,21	recall (9) 8:19 32:8 33:4
produce (5) 19:13 34:1	82:5	194:3	81:1	176:6,15,17	134:19 137:7	35:6 101:6,7 144:20
177:7 203:14 210:23	promat (9) 76:2	putting (6) 10:20,24	82:4,7,12,16,21,25	177:2,9,12,20	139:13,14,20 140:18	207:1 213:14
produced (12) 16:10	78:10,24 79:3	84:13 98:10 136:2	83:12 84:1,8,14	178:4,10,22	141:1 142:7 143:5	recalled (1) 165:15
33:10 39:16 51:9,17	82:4,15,17 101:13	179:14	85:1,5,7,12,17,20	179:8,13,22 180:16	145:4 191:21 193:25	receipt (1) 106:1
66:15 85:21 105:12	103:25		86:6,23	181:10,15,17 182:19	rainscreencladdingcork	receive (5) 8:20 48:20
		Q			(2) 101:3,4	

103:3 111:6 179:5 received (12) 39:18 41:11 53:15,16 54:6 89:7 107:5 125:4 178:25 198:10,12 207:9 receiving (1) 209:19 recent (8) 23:6 77:23 94:16 112:17 125:7 170:3 189:25 209:14 recently (6) 2:16 109:16 125:4 127:6 180:20 207:9 recipient (1) 110:2 recollect (7) 16:7 21:14 40:16 62:21 75:10 179:18,21 recollection (6) 10:14 11:17 22:7 121:12 158:17 207:2 recommend (1) 196:2 recommendations (1) 25:7 record (5) 68:3,15 153:3,12 195:1 recorded (3) 57:23 86:24 160:4 records (4) 22:10 36:8 83:21 116:4 red (4) 116:20 117:4 119:10 120:19 reduced (1) 154:4 reduction (2) 153:22 154:6 refer (2) 136:21 151:11 reference (7) 14:21 21:18 79:3,6 109:18 150:9 180:11 references (5) 23:14 74:7 81:13 99:1 206:5 referencing (1) 100:10 referred (9) 14:10 33:15 34:1 37:10,18 72:24 76:24 94:25 95:8 referring (13) 14:22 75:16 92:18 99:12 104:12 122:2 141:18 172:11 174:12 176:10 181:10,12 186:8 refers (4) 73:24 136:6 178:20 209:22 reflection (1) 117:17 refused (1) 45:1 regard (4) 53:20 54:3 182:4 190:14 regarding (1) 200:4 regardless (1) 69:23 regards (20) 8:10 9:17 23:6 24:23 47:18 48:7,19 78:4 79:1 92:5 94:16 105:13 119:4,7 174:10 184:1,20 185:6 210:4,13 regime (4) 26:16 95:23 96:3 172:20 regimes (1) 39:22 region (1) 72:13 register (1) 209:15 regularly (5) 5:16 28:8,14,18 123:24 regulations (7) 9:15 10:23 16:21 23:12 81:14 122:10 140:20	regulationsstandards (1) 142:1 regulatory (3) 26:16 95:23 96:3 reissue (2) 209:16,21 related (1) 109:16 relates (1) 125:22 relating (1) 150:6 relation (12) 40:13 58:1 136:20 183:24 191:5,12 202:10 204:21 207:10,20 209:14 211:21 relationship (2) 186:21 193:7 relay (1) 61:17 release (2) 51:24 206:23 released (1) 142:22 relevant (5) 26:15,16 41:14 95:23 96:3 reluctance (1) 69:11 rely (3) 108:20 127:20 128:10 relying (1) 108:13 remain (2) 90:1 154:17 remained (3) 5:3 34:20 161:12 remaining (3) 81:9 119:15,18 remaking (1) 180:11 remember (34) 3:2 5:22 9:6 11:15 20:23 26:5 33:6 40:13 41:12,23 48:14 68:1 72:20 88:13 113:18 115:25 121:10 132:23 133:2 135:3 146:12 156:23 157:2 159:24 161:6 171:4 185:1 188:21 200:7,9,20 203:10 213:18 214:5 remembered (1) 182:24 removal (2) 182:15 190:10 remove (5) 79:3,6 117:11,22 118:4 removed (5) 49:7 119:16 166:5 180:25 195:8 removing (2) 78:9 99:1 render (7) 30:2,21,24 31:10,18,25 110:16 rendered (2) 9:7 33:7 repeat (4) 1:25 151:22 166:15 191:7 repeated (1) 168:15 repeating (1) 42:2 rephrase (2) 53:25 177:19 replacement (1) 25:12 replicate (1) 74:14 replicated (1) 85:15 replied (2) 189:11 190:21 report (114) 5:11,16 6:2 16:10,13 17:14 20:1 32:15 33:10 43:1,2 49:14 51:11 52:3,9 57:23,24 58:1 62:7 65:17,18,19,23 68:17 74:6 75:3 76:24 77:25 78:5,7,15,18,21 79:11 80:1,2,7 83:1	86:9 87:7 89:17,21 90:2,3,7,15,23,25 91:9 95:1 99:17,22,23 100:8,19,20,23 101:22 103:4 106:2,9,20,22 107:4,5,9,21,25 108:23 109:2,8,17,21 110:15 111:8,10 112:4 115:6,12 116:5,11,15,17 117:3,9 119:14 123:7,11,21 126:7,11,12,23 127:4 150:10 152:23 157:24 161:22 162:5 163:10 164:16 166:10 170:2 174:4 189:7 196:20,22,25 197:2 198:4,6,11 203:25 204:17 reported (4) 43:7 56:12,18 211:16 reports (16) 39:18 41:10 51:4,5,8,16 52:4,15 54:22 107:8 125:14,14 126:3 144:23 194:5 197:23 represent (4) 65:9 69:13 77:3 93:6 representation (1) 113:13 representational (3) 108:10 111:12 112:12 representative (25) 48:17 64:3,9,14 65:13 69:21 70:8,11,21,24 74:2,12,15 82:13 108:7,25 111:2,3 112:5 126:1,19 134:2 135:1 143:5 148:6 represents (1) 107:13 request (9) 99:3 107:5 109:3 110:4 160:10 168:17 208:21 209:19 210:1 requested (8) 53:21 93:23 99:20 100:22 102:25 105:25 136:8 149:15 requesting (3) 93:24 94:1 109:4 requests (3) 96:25 102:4 125:19 require (2) 112:14 123:15 required (11) 35:24 38:8 90:7,15,17,19,20 95:6 100:24 115:12 198:25 requirement (5) 9:20 38:21 58:7 79:18 98:15 requirements (21) 7:11 26:7,10 39:20 65:10 70:4 89:20 96:25 97:14,18 101:20 102:3 103:11 112:12 120:6 123:13 129:17,19 148:7 170:11 173:20 research (6) 38:1 97:5 99:6 102:8 120:22 169:23 reservations (1) 99:16	resilience (1) 17:18 resilient (1) 137:8 resin (3) 184:11,15 185:7 resist (1) 23:23 resistance (4) 17:18 24:1 73:10 79:20 resistant (1) 79:21 resolved (1) 193:8 resource (1) 133:16 respect (5) 65:5 104:9 173:4 197:9 203:24 respected (1) 212:15 respond (6) 92:6 159:1 208:18,21 209:1,4 responded (3) 93:18 175:21 178:22 responds (2) 183:20 208:19 response (25) 82:23 85:22 93:16 106:6 107:4 109:15 110:22 123:24 166:12 174:7,17 180:16,18 182:3,20,21 183:2 185:1 187:22,23,25 190:13 192:4 195:24 207:12 responses (2) 92:4 130:4 responsibility (5) 39:4 42:21 48:9 138:4 157:20 responsible (7) 47:14 49:25 51:3 52:25 159:18 192:17 193:20 rest (2) 51:11 175:2 restricted (1) 149:5 restrictions (1) 212:5 result (16) 30:6 48:21,22 64:4,15 69:1 71:23 86:9 117:11 119:13 140:24 141:7,21 143:11 150:11 184:2 results (21) 16:24 21:9 41:17,20 60:22 61:7,16 62:8 90:5,8,12 92:25 109:4 112:10 115:13 119:8 123:12 166:16 183:25 189:9 191:8 resume (1) 214:14 retain (1) 144:16 retardancy (1) 167:4 retardant (8) 156:15 166:11,13 172:14,24 198:21 199:5,17 retardants (3) 152:20 166:23 167:1 retracted (3) 129:20 130:12,15 return (1) 173:17 revert (1) 181:5 review (3) 125:21,24 126:17 reviewed (2) 98:25 170:1 richard (1) 130:19 richardson (3) 105:2,8 106:25 rig (22) 47:15,18,22 48:5 49:22 53:1 60:18	62:21 64:21,24 69:5,10 74:19 75:14 76:8,9 80:18 123:18 162:3,13 164:11 174:6 righthand (5) 11:9 37:22 65:21 137:20 140:16 rigid (1) 140:19 rigs (3) 47:11 48:16 53:3 ring (2) 106:11,14 ringing (1) 116:22 rise (5) 12:19,24 81:12 117:12 199:1 risk (2) 25:13 179:17 rob (3) 105:8,10,17 robust (1) 35:13 rochefort (30) 6:1,9,19 13:17,22 38:6 43:8,9,24 47:7 58:13 80:13 127:15 149:1 156:20 157:9 158:3 169:10 170:19,25 173:25 175:21 178:11 179:15 180:2,19 190:24 195:22 199:13,20 rock (2) 119:15,18 role (9) 5:3,7 8:2,21 38:3 43:21 45:20 46:10 201:19 roles (1) 4:7 roofing (5) 73:5 105:2,8 106:12 107:1 room (3) 57:3 114:11 160:13 roughly (2) 5:22 72:20 round (2) 158:14 165:21 route (11) 9:20,23 10:2 29:22 93:4,10 130:24 132:2 134:20 172:22 187:13 routes (1) 26:19 routinely (1) 6:18 row (2) 36:23 87:21 rsb (7) 76:2 78:10,24 79:19 82:5 101:13,23 rug (1) 49:18 rules (15) 58:25 59:1 71:17 72:24,25 73:2,5,11,14,15 85:16,18 89:23 132:14 199:8 run (9) 23:18 36:11,13 37:20 83:18 145:15 174:8 195:3 204:6 rung (2) 166:1 185:10 running (3) 50:23 61:10 174:22 rush (1) 209:1 rushing (1) 210:19	201:13,15 212:7,23 213:3,7,10 same (32) 5:3,7 7:6 15:7 23:21 31:5 50:13 66:25 86:15 87:18 88:16 89:2 104:19 113:21 128:1 136:25 146:14 147:12 157:15,17 171:1 173:22 175:1 182:9 186:25 187:20 188:17 190:22 192:2 195:7,9 196:4 sample (6) 68:18,24,25 81:15,22 198:21 samples (8) 166:23 169:21 170:10 172:5,9 182:8,8 190:18 sand (2) 133:7,17 sarah (17) 20:24 21:1 59:8 60:6 63:11,18 91:8,12 93:12,16 96:11 129:23 130:5,17 131:21 147:4 160:10 sarabs (1) 130:19 sat (3) 165:25 199:25 209:9 satisfied (5) 30:3 32:5 50:4,10 52:11 satisfy (1) 178:5 saw (6) 3:6,12 63:6 113:25 166:10 193:9 saying (41) 28:23 39:14 49:9 62:10 71:24 74:22 84:4 92:8,11 94:15 95:8,12 102:18,20 103:20 104:5,10 123:3,22 127:4 130:6 143:22 158:24 163:7 175:3,7 177:2,4,12,23 178:23 182:19 186:24 187:19 188:18 189:10 191:14 192:24 200:14 203:17 208:25 sbi (6) 16:24 41:22 153:23 154:9,13 155:6 scale (7) 14:3 16:25 20:15 21:9,10 41:16 183:24 scan (1) 106:19 scenario (4) 16:25 21:11 100:14 142:11 scenarios (3) 59:3 73:3 194:19 schedule (3) 36:21 86:3,3 scheduled (1) 2:3 schools (1) 201:5 schutt (1) 60:17 scope (14) 48:22 59:1 89:23 92:24 99:21 100:21 104:21 109:5 118:18 129:10,16 130:22 132:7 134:4 scotland (1) 145:24 scottish (1) 122:9 scratching (1) 135:6 screen (3) 101:16 110:16 153:15 screw (1) 62:7 scroll (1) 186:14 scupham (2) 94:13	214:4 seal (1) 195:7 second (31) 11:20 17:11,11 23:11 25:10 60:20 62:3 67:6 73:18 76:12 78:16 84:4 94:23 95:24 100:2,3 101:24 103:9 117:8 125:16 126:16 139:19 145:13 161:25 172:6 193:22 194:20 205:2 207:6,18 212:21 secondary (1) 159:9 secondly (1) 209:19 seconds (2) 62:13 162:12 section (14) 24:7,13 78:15,18,20 79:25 80:2 98:20 198:15 202:7,16 204:19,20 207:11 see (258) 2:13 4:7 5:10 8:4 9:12 10:6 11:8,10,13,24 12:22 13:16,23 14:8,20,20 15:5,12 16:12,14,18 17:3,5 18:9,16,20 19:1 21:8 22:19,23 23:4 24:3 25:15 26:9 27:12,17 28:3,11,23 29:12,20,23 30:17 32:1,10,13 33:2,12,12,24 36:25 38:13,22 39:10 42:13 43:5 44:13 46:18 47:20 50:6 51:8,12 52:7 53:5,22 55:5,15 56:14 60:12 61:14 62:2,10 63:17 64:11 65:11,16,20 66:4,10 67:6,13 68:16 70:17 73:21 74:17 75:11,21 76:13 77:16 78:2,6,17 80:14,21 81:24 82:16 83:1,3,4,10 84:1,8,24 86:7,11 87:1,2,5,22 91:17 94:1,5 95:3,12,21 96:13,17 97:15,21 98:12,21 100:15 102:11 103:15 104:3 107:1,5 109:25 110:4,14,23 111:21 112:11 113:10 115:10,15 116:12,12 122:11,17 123:3,5,13 124:22 126:8,24 137:19 138:16 139:13,16,21 141:8,11,15 142:2,13 143:25 145:8,11 146:23 147:2,18 148:16 150:12,17,24 151:19 152:11 153:16,16,18 154:1,21,21 156:17 157:7 159:12,14 160:1,19,20 161:22,24,25 162:5,6,12,20,21 163:2,4,6,7,9 164:1,2,12,22 168:18,22 169:12,13,15 170:12
---	---	---	--	---	---	---

172:5,17,25	170:22	simon (1) 94:14	185:8 198:1 204:16	spoke (3) 24:23	steel (13) 17:1 80:23	97:4 122:6 128:18
174:2,3,13 175:3,10	seriously (3) 158:2	simple (1) 150:15	206:12 211:25	26:21,23	139:21 140:9	129:19 138:13 166:15
176:4,17 178:4	186:18,22	simulate (3)	sometimes (4) 6:15	sponsor (2) 83:6 86:8	144:11,15 145:3,23	suffer (1) 196:5
180:1,9,17 181:8	services (8) 22:21 38:9	113:12,17,23	10:18 51:19 73:10	spread (8) 41:13 81:9	146:5 165:2 168:5	sufficient (1) 126:22
182:17 183:20 184:25	43:3 80:12 121:16	simulates (1) 113:8	somewhere (4) 5:4	96:6 100:11 102:6	181:3 183:12	sufficiently (1) 126:1
187:8 188:11	124:2 198:5,11	since (3) 66:14 76:22	46:22 72:13 203:25	114:1 159:22 205:9	steer (4) 55:9,11,15	suggest (8) 24:15 72:8
189:14,14 190:19	set (7) 29:21 34:24	190:20	soon (8) 29:18 146:20	spreading (1) 70:1	130:21	92:1 112:19 146:25
191:3 192:2,6,8,22	47:25 49:22 95:22	single (6) 17:19 20:5	169:20 172:9 193:14	spreads (1) 69:25	steered (1) 54:24	148:11 181:5 184:22
195:21 196:12	116:23 170:11	21:2 41:20 153:23	196:1,10 209:16	spreadsheet (8)	step (2) 59:23 71:8	suggested (5) 59:4,7
197:5,10,23 198:14,19	setting (2) 96:2 150:23	154:5	sop (1) 128:13	18:11,14,15,22 85:20	stephen (1) 132:25	123:23 165:19 207:12
199:2 201:11	several (2) 151:5 196:9	sir (26) 1:3,10,12 55:24	sophisticated (1)	86:24,25 150:4	stepping (2) 118:10,21	suggesting (3) 146:6
202:2,5,8,11,15,17	share (3) 144:16,20	56:24 57:8,15,18	123:20	square (1) 15:1	steve (3) 13:22 60:15	173:10 211:6
203:23 204:14,24	157:9	114:6,14,21,24	sops (2) 37:2,3	stab (1) 111:14	110:22	suggestion (2)
205:1,6,12 207:25	shared (3) 5:20	167:9,11,17,23	sort (17) 13:4 50:21	stability (1) 19:6	steven (1) 22:25	166:12,13
208:17 210:6,8	197:16,18	171:7,18 206:18,21	74:24 95:16 106:23	stable (2) 35:21,23	stevens (3) 181:24	suggestions (1) 191:2
seeing (5) 41:12 71:12	sharing (1) 5:23	213:14,24	122:24 138:1 144:22	staff (3) 61:24 83:8 84:4	189:22 190:20	suggests (3) 110:21
75:25 194:1 197:23	sherburn (1) 182:9	214:1,8,18,21	154:12 157:2 160:11	stage (8) 12:14 16:2	sticking (1) 175:18	113:13 118:4
seek (4) 46:4 118:15	shipment (1) 68:8	sister (1) 187:13	165:19 188:14 197:19	26:5 111:6 133:25	still (12) 25:12 39:16	suitability (3) 119:3
175:17 194:15	shock (1) 157:2	sit (2) 1:13 135:14	203:4 211:15 213:20	134:25 144:19 146:3	44:10 58:25 102:18	194:7,14
seeking (2) 17:17 120:9	shocked (2) 130:7	site (2) 176:2 177:18	sorted (4) 176:2,24	stages (6) 202:15,22	103:3 108:10 126:21	suitable (8) 12:15 85:9
seem (3) 11:17 107:23	152:11	sites (1) 201:5	177:25 178:7	203:22 204:7 207:22	148:3 154:23 155:2	90:25 135:19,20
169:18	shocking (1) 153:9	sitting (1) 2:8	sotech (8) 145:4,16	208:9	163:19	138:23 142:17 157:22
seemed (1) 92:6	short (7) 28:6 56:25	situated (1) 81:16	147:3,24 149:3,8	stakeholders (1) 145:15	stipulated (1) 172:20	summarising (1) 105:13
seemingly (1) 62:4	57:13 114:19	situation (9) 11:2 27:2	168:4,18	stall (2) 211:11,13	stipulates (2) 96:19,21	summary (6) 126:3
seems (4) 101:9 110:12	167:12,13,21	72:18 142:15 151:4	sotechs (1) 168:17	stance (3) 111:16,17	stone (3) 29:21	145:6,9 147:12 161:18
146:25 155:14	shortly (6) 102:9,15	166:19 173:8 180:24	sought (1) 44:19	131:14	118:10,21	162:16
seen (12) 11:19 65:2	130:14 131:19 144:9	202:25	sound (2) 54:20 124:24	stand (3) 20:18 37:4	stop (2) 70:1 214:10	superior (1) 212:14
86:3 99:15 125:8	206:23	situations (2) 81:12	sounds (2) 141:10 204:3	38:15	stopped (1) 157:21	superiors (2) 152:23
152:1,2 156:13 183:25	should (25) 11:19 24:16	181:3	source (11) 11:1 23:19	standard (17) 17:23	stopping (1) 200:4	213:25
184:6,13 213:5	65:11 69:4 81:16	six (1) 103:9	24:21 136:16 159:23	27:14,18 36:13 37:5	storey (3) 24:14 96:6	supervision (2) 83:8
select (2) 46:17 82:7	101:18,20 110:21	sixth (3) 86:10 96:16	180:25 182:16	40:22 62:12 79:18	141:24	84:5
selected (4) 49:23	128:24 143:15,16,17	150:6	190:2,6,10 205:9	95:11 125:3 140:22	stores (1) 25:9	supervisory (1) 45:20
64:1,9 149:13	149:22 163:14	size (3) 71:13 91:1,2	sourced (1) 130:24	141:3 184:4,15 188:24	storiessic (2) 96:22	supplied (6) 178:13,17
self (1) 180:23	165:14,23,24 166:5	slightly (6) 36:2 109:15	sourcing (1) 7:11	195:4 203:4	101:25	186:24 187:19 188:19
sell (3) 174:19,23	174:7 175:18	148:12,13,13,15	space (1) 69:24	start (6) 1:21 2:24	story (7) 107:10,14	192:20
177:10	192:14,19 193:1	slim (1) 151:16	spaced (1) 98:16	13:19 94:15 151:17	118:13 168:2 183:8	supplier (1) 68:5
selling (6) 128:18 165:9	196:24 206:12	slower (1) 198:24	speak (8) 2:9 6:15	169:8	186:4,23	suppliers (3) 131:16
170:6 171:21 174:10	shouldnt (4) 135:8	sly (1) 194:6	26:24 106:11 107:14	started (11) 6:3	straight (1) 110:9	184:12 194:17
175:15	143:14,18 177:13	small (4) 11:9 14:1	134:22 136:12 206:9	8:2,9,20 9:13 10:23,24	strategy (8) 46:13,14	supply (4) 83:7 179:12
send (7) 58:24 83:19	show (9) 18:10 46:7	126:3 183:24	speaking (1) 68:4	11:1 44:18 131:8	118:9,20,22 130:2	188:7 196:10
106:17 195:2 196:6	52:8 58:19 60:5 102:6	smaller (2) 20:15 21:9	special (1) 40:2	137:12	211:21,22	supplying (6) 179:16
198:16 205:25	107:12 125:4 194:18	smallscale (2) 7:19	specialists (1) 203:15	starters (1) 168:19	stricter (2) 96:24 102:3	183:15 187:6 188:3,6
sending (2) 105:7	showed (2) 88:3 107:21	199:9	specific (23) 56:6,11	starting (4) 30:18 59:24	strictly (2) 84:22 145:9	189:4
194:25	showing (5) 101:12	smith (2) 110:22 125:10	79:7 97:25 98:4 108:1	192:4 202:7	string (2) 173:22,24	support (4) 101:21
sends (3) 181:25	111:14 118:13 143:23	smoke (3) 23:16	111:25 115:8 118:7	starts (2) 54:4 120:18	stripping (1) 78:9	119:4,7 143:21
210:9,10	181:10	202:15,19	134:14 136:6 138:24	stated (7) 7:15,25	striving (1) 184:7	supported (4) 7:7,10
senior (5) 56:6,12,19	shown (4) 140:24 141:7	socalled (1) 61:24	141:10 142:12,15	141:22 159:24	strongly (1) 146:7	79:8 136:1
59:18 213:15	197:7 204:8	sold (9) 16:6 18:3 41:4	143:18 158:17 182:12	205:7,10,16	structural (1) 173:5	supporting (1) 105:8
seniors (1) 118:23	shows (6) 37:24 151:12	88:23 126:2,20 127:2	190:11 207:23	statement (52)	structure (2) 80:23,24	supports (1) 111:10
sense (3) 20:16 92:10	161:25 164:11 170:3	143:8 195:18	208:3,12 209:3	2:11,16,20 3:25	structures (1) 146:5	suppose (1) 196:6
95:1	181:1	solely (6) 71:6,9 99:22	specifically (9) 11:22	4:21,25 7:5 10:5	struggle (1) 74:24	supposed (6) 44:7
sent (23) 13:20 15:7	side (22) 14:18 18:16	115:13 159:18 175:1	12:6 40:13 79:9	12:2,5,9,12 21:16	stuck (1) 161:15	69:20,21 70:6,7 151:8
22:20 51:6 68:8 75:4	36:24 37:23 54:24	solution (4) 10:24	127:14 136:22 145:24	35:19 42:19 43:13	studied (1) 3:5	sure (21) 5:1 13:9 14:16
80:9,10 96:12	55:11,15 62:23 65:21	107:16 158:11 177:5	167:3 182:24	44:2 46:9 49:18,24	stuff (1) 185:6	15:19 34:22 35:4
110:4,23 149:13	126:8 138:2,10 155:25	solutions (1) 171:4	specification (3) 53:1,4	51:2 53:11,23,24 56:3	subject (6) 41:3,5 74:4	50:13 152:23 157:21
152:22 174:8,17	162:18,18 163:20	somebody (4) 90:5	101:15	59:15 63:2,22 73:18	101:9 105:10 169:11	160:24 161:1,15 173:7
181:24 185:3 189:5	164:17,17 173:4,12,12	189:8 195:2 200:9	specifications (4)	76:20 84:15 89:13	subjected (5) 23:19	179:5 180:14 183:17
190:21 196:21 197:1	179:14	somehow (1) 84:2	28:22,23 119:16,20	124:13 129:5,20	34:9 140:22 141:3	185:9 200:1,2,9 206:5
198:18,22	sign (3) 50:10 83:19	someone (6) 22:12,20	specifics (2) 136:13	130:11,12,15 131:17	142:8	surface (6) 23:20,21
sentence (16) 17:11	195:5	56:12,18 59:10 107:25	201:9	132:17 138:21 142:17	subsidiary (2) 94:9	41:13 69:4 154:24
20:6 30:18 84:4 94:23	signature (3) 2:14	something (43) 14:21	specified (4) 140:23	146:10 178:11 200:23	169:4	159:21
97:3,16 98:13 103:8	145:10 195:7	15:2 44:23 54:20	141:2 142:8 143:18	201:17 203:1,6,21	substance (2) 151:6,8	surfaces (1) 14:2
104:4 113:5 117:8	signed (5) 38:10	68:21,22 69:9 75:9	specify (1) 46:14	204:10 211:19 212:1	substrata (1) 101:17	surprise (2) 183:3,7
155:10 172:6 193:16	39:8,22 40:5 83:21	77:11,14 79:12 84:19	specimen (4) 66:1	statements (3) 25:3	substrate (5) 67:12	surprised (2) 153:2
208:14	significant (1) 137:14	92:9 99:24 101:5	83:4,6,8	46:8 174:12	131:25 143:6 165:1,2	171:17
sentences (2) 155:11	significantly (1) 23:23	102:21 104:25 117:1	speculating (1) 155:14	states (1) 29:7	success (4) 62:4 89:25	suspicion (1) 198:1
185:6	signingoff (1) 40:9	127:5 132:14,25	speed (1) 69:25	stating (1) 132:5	153:14 184:22	suspensions (1) 197:9
separately (1) 81:20	signoff (2) 40:15 50:3	133:12 137:24 144:24	speedy (1) 209:21	station (1) 99:6	successful (14) 3:7	swift (1) 146:19
separately (8) 36:25	silicate (1) 101:17	149:18 158:13	spelt (1) 14:11	status (1) 38:7	16:24 20:18 21:9	switched (1) 146:17
58:3 89:8 109:10	similar (9) 52:22 151:5	161:1,12 166:21	spend (2) 90:22 161:9	staying (4) 67:3 88:15	30:13 33:9 61:11,15	system (107) 9:7 10:11
110:6 124:18 127:7,21	157:5 163:17 184:3	168:23 170:6 171:21	spending (1) 148:18	116:7 117:7	117:11,18,19 118:6	12:5 17:2 20:8 21:21
series (2) 77:19,21	189:22 190:21 196:5	173:13,19 174:11	spent (1) 52:18	steam (4) 150:21	144:19 151:18	22:3,5,9 26:2
serious (2) 151:15	199:10	175:18 176:8 177:4	split (1) 145:16	153:3,7 170:4	successfully (7) 37:20	30:2,21,25 31:18,21

33:6,7 38:16,18,20	team (19) 2:22 4:23	21:13,19,20,25	180:6 181:14 182:8	text (15) 4:8 77:24	212:24	43:24 44:22 45:2
39:7 47:25 49:3 50:1	8:3,11 42:25 43:3	22:3,5,12 29:19	184:6 185:21 186:25	78:6,17 96:11 119:10	thermal (3) 120:5	48:11,25 52:12
57:22 59:19 65:16	45:25 46:4 51:11	30:4,9,11,13,22,24	187:1,20,21 188:23	120:19 121:25	141:23 202:9	54:10,12 58:15 60:2,3
67:11 69:14,20	59:19 61:10	31:4,20,25,25	189:4 190:18 191:7,21	122:3,4,5,13 123:5,23	thermocouple (3)	67:1 69:11 70:12,22
70:2,4,7,12,22 71:22	64:6,8,16,17 157:25	32:4,11,14,15,19	192:23 193:19 195:1,6	207:13	62:1,8 123:19	71:18,24 72:22
72:1,3 73:25 74:9,12	178:8 189:5 197:17	33:3,10 34:12	196:3 202:23	thank (30) 1:10,12,17	thermocouples (5) 62:3	74:13,16 75:8,9
77:8,13 81:3 82:14	tech (5) 181:2,11,12	39:21,25 41:10	203:4,4,13,25 204:17	2:23 11:4 37:6 50:25	76:12 150:14 184:3	76:4,22 82:10 85:1
83:14 84:22,23	187:4,4	44:7,11 45:1,3	205:7,18	57:8,18,20 71:2	205:8	86:17,21 88:8,17,25
85:2,9,11,13,14 86:8	technical (60) 3:6,14	47:11,15,18,22	tested (70) 20:19 25:24	114:6,17,24 115:1	thermoset (4) 23:17,24	90:12 91:16,19 92:8
89:17 101:23	4:8,11,14,19,21,22,23,24	48:5,16,20,22,25	26:4 30:1,20 33:6	116:6 151:10	140:19 204:6	93:20 99:14 100:19
104:15,19 107:11	5:1,14 6:2,10,11,17,25	49:2,6,10,12,22 50:2	57:22 59:2,20 71:25	167:17,19,24 168:1	theyd (4) 172:19	102:19,23 107:4
108:1	7:8,8,25 8:7,11 10:15	51:4,5,10,16	72:3 74:1,9 79:15	171:18 206:22	195:4,5,10	108:15,23 115:11
110:13,14,15,16,18	38:7,9	52:2,3,15,17 53:1,2	84:21 85:11,14,23	214:1,6,7,8,18,19,21	theyre (14) 16:1 61:24	118:6 129:4 130:20
111:2,4,25 112:6	43:2,3,3,9,23,24 45:25	54:13,16,22 55:2	86:9,11,13,15,20	thankings (1) 1:21	83:22 84:2,6 86:24	132:20 133:3,14 140:9
113:14 115:8 129:16	46:4 47:17 48:4 51:11	57:21,24	87:14,18,23,24	thanks (2) 105:20	164:25 171:10 176:19	149:20 152:17
134:7,14,15,18,19	56:2 59:19 64:7,17	58:2,6,10,17,22,23	88:7,16 97:4 98:1,5	109:15	183:7 208:2,13,14	155:12,15 156:6,25
135:19 136:6 140:4,10	80:12 121:16 123:24	59:4,17,19 60:7,12,24	99:22,23 102:7 104:20	thats (135) 4:3,5,17 5:6	210:25	157:3,6,10,11 158:1
141:14 142:18	124:2 131:19 132:25	61:11,19,21	108:2 115:8 120:22	7:21,22,23 11:4 17:24	theyve (4) 203:24,25	159:3,25 160:15
143:5,18 147:13,15,20	136:9,12,25 156:7	62:4,7,11,23 63:1,19	122:6 127:1,12 128:19	18:11,22 19:1,24	204:2,17	164:18 166:24 171:16
149:3,3,8 151:25	157:21,25 173:13	64:4,21,24	129:14,16 131:10	20:11,21 23:3 24:9	thick (3) 67:9,23 205:1	182:6 183:14 185:17
152:5 156:25 159:17	196:21,25	65:8,17,18,19,19	136:7 138:13 139:2	25:21 26:2,3,12	thickness (3) 14:23	190:3,16 193:2
161:23 162:25	197:17,18,19 198:5,10	66:24 67:8 68:9,16	140:3,8,9,11 141:22	29:11,15 33:19 34:4,7	15:9 125:3	194:11,12 195:18
174:19,23	technicians (2) 184:23	69:1,5,10 71:23 72:22	147:13 153:22 154:4	35:18,22 36:7,19	thicknesses (2)	197:7,14 198:24
175:4,9,12,15 204:23	187:3	73:2,6,22 74:6	160:16,17 161:23	37:15 38:2,17,18,20	124:19,20	199:15 200:6,22
205:5,18,18	technology (99) 15:23	75:3,6,15 76:23	180:20 185:14 189:8	39:2 42:3,5 43:15	thing (7) 2:6 13:4 50:24	201:21 203:16 204:11
systems (38) 10:21	19:15,19 33:14,18,25	77:10,25 78:5,6,23	191:13 195:10 204:23	45:22 47:3 49:16 50:8	90:22 134:13 176:18	205:7 206:3,7 209:17
11:23 12:7,16 28:9,15	34:2,2,9,17,20,23,25,25	79:1,5,9,17 80:9,17,22	205:5 207:23 208:3,11	52:16 55:24 56:20,22	212:19	210:22 211:17 212:13
42:22 48:17,24 49:6	35:8,9,9,16 36:17,18	82:8,13 83:1,6,7 84:11	testing (101)	58:3,4 59:20 60:19	thinking (7) 45:14	times (6) 5:17 40:25
50:16 59:6 65:2	37:2,11,12,19,19	85:1,2,5,10,12,23 86:8	7:12,13,18 8:16 9:14	62:18 63:14 64:23	79:22 108:4 115:21	72:24 86:25 140:10
72:12,12 79:8 91:24	38:5,5 39:6,16 40:19	87:1,2,6,8,14,15,21,22	10:3 11:2 13:7,10,12	66:17 67:25 70:5	135:4 156:8 179:15	197:24
93:6 94:18 98:9,10	66:14,14,22 87:25	88:22	16:23,25 17:8 19:5	73:3,12 75:18	third (19) 16:16,17 20:6	timescale (1) 109:24
104:23 111:15	88:4,11	89:2,6,8,11,22,25	20:5,7,7,11,13,15	76:2,6,15 80:4,25	24:5 27:5 28:7 56:3	timescales (1) 184:18
132:3,9,15	124:11,12,16,17,20,21,25	90:3,4,12	21:10,11 22:7 31:18	83:22 84:6 85:16,20	78:13 87:5 105:15	tissue (2) 31:9 32:21
139:14,15,21 140:11	127:8,11,18,22	91:9,10,21,23	32:8 34:8 38:8	86:19 87:25 90:20	138:10 139:20 145:14	title (1) 5:4
141:4,5 144:15 185:22	128:2,13,16,21	92:25,25 93:24,25	39:5,11,21	92:13 93:14	151:1 171:23 187:18	titled (1) 18:14
191:18,23 193:25	149:20,21,24	94:24 95:1,13,18 98:8	41:16,18,21,22	94:3,11,22 96:8,9 97:7	197:4 202:10 205:5	today (9) 1:4,22 2:21
194:21	151:3,4,5,23	99:12,17 100:8,11,23	42:18,22 43:14,22	99:6,8 108:16,18,21	thoroughly (2) 50:2,9	86:24 125:8 126:20
	154:8,16,16 155:7	101:9,12 102:13	44:6,10,16,17,21	113:15 114:4 116:24	though (8) 12:6 24:20	127:3 129:8 214:9
	157:10 158:2,20	103:4,6,19 105:21	45:13 46:10,13	117:25 118:5,8	27:10 29:10 30:14	today (1) 1:4
	161:1,9 162:21	106:19 107:7,18	55:2,10 56:8 68:22	127:8,16 130:3,5	128:10 141:10 213:10	together (11) 7:1
tab (1) 18:13	165:18,19 166:16	108:1,7,14,19,25	71:8 72:1,14,16,23	132:16 138:18 139:5	thought (17) 19:3 62:9	18:11,22 59:21 96:20
table (4) 126:5,9 140:23	172:13	109:9,18,18,22	73:13 77:12,13 79:5	140:12,13 142:4	63:17 95:12 112:5	101:10 104:24 120:20
141:2	176:11,19,22,23,24,24	110:11,12,13	83:17 84:3,20 89:20	144:13 145:21 146:7	115:13 130:17 134:1	134:9 154:17 192:10
tack (1) 121:22	177:7,8,13	111:8,9,10,10,20	90:21 92:2 93:5,10	152:22 161:11	143:21 155:19 159:2	told (16) 7:5 34:11,12
taken (14) 26:18,20	178:2,3,6,12,14	115:21,22	95:7 98:11	162:3,9,15 163:4	160:20 179:3,4 201:10	35:13 83:12 87:24
31:15 64:5,8 69:3 75:5	179:17 180:11 181:6	116:1,8,8,18	118:10,18,22	164:8,21 168:5 170:24	203:25 213:1	128:1 142:23 152:18
158:2 181:15 186:22	183:9 187:10	117:9,11,18,19 118:6	129:11,18 130:25	171:22 176:16	three (8) 5:17,21 83:4	153:5 161:1 166:1
187:12 208:20 209:4	191:7,8,13,20,21	119:8 120:13 122:2	131:11 132:11,20,21	177:10,11 178:7,8	102:13 108:15	167:1 185:16 186:7
211:5	199:11,15,22	123:8,12,17 125:13,21	134:12 137:13 144:6,7	189:3 193:22 199:6	124:15,16 145:16	200:3
taking (5) 63:10 78:8	telecon (1) 94:16	126:6,6,11,12,13,14,23	149:9 155:7 157:23	201:2 204:5,17	threshold (1) 62:3	tomorrow (4) 60:12
104:4 194:1 200:4	telephone (1) 59:13	127:3,7,21 129:13,25	158:8 160:7 166:24	205:17,19,20	through (16) 10:3,18	166:10 214:12,22
talk (15) 55:5 57:3,5,21	telling (3) 14:23 127:1	130:14,22 132:6,12	169:2 170:12	206:4,10,16,22 208:13	40:11 50:12,19 77:8	tony (13) 43:1,25 46:9
82:2 84:23 96:1,4	128:17	134:1,5,6,14	172:20,24 175:4	211:1	122:23 125:24 127:3	48:4,15 110:4,25
107:12 114:10 152:19	tells (1) 37:7	136:1,3,21 137:11	176:12 179:6 185:13	theme (1) 129:7	135:13 136:13 159:9	124:7 131:21 147:4
160:6 166:9 167:15	temperature (4) 23:24	138:6 140:23 141:3,4	196:7 197:15 198:23	themeselves (3) 52:4,15	165:18 172:20 182:25	160:10 161:7 201:23
192:22	62:2 184:3 205:7	142:25 143:4	199:5	95:13	193:4	tonys (1) 48:6
talked (5) 26:22 72:19	ten (6) 58:2 89:8	144:10,19 145:2,7	tests (61) 7:19,20,22	theory (1) 110:9	throughout (2) 145:22	too (5) 54:23 71:20
93:9 165:7 172:15	206:16,19 208:19,21	146:1,3,7,11,14,20	14:6 20:6 21:3,5 38:11	thereafter (1) 96:10	204:18	159:3,4 166:2
talking (23) 6:3,7,24	tended (1) 154:16	147:1,3,6 148:4,23	40:6,8,12 41:12 42:2	therefore (20) 23:18	throwing (1) 193:6	took (15) 32:19 41:7
17:5 54:4 55:6 56:8	terminology (7) 27:13	149:2,14,23 150:7,22	43:19 45:24 50:15	24:19 45:11 53:20	thrown (1) 104:24	48:25 59:10 60:7
72:13 73:21 83:23	51:22 66:9 78:9 80:4	151:11,18 152:10	59:24 68:24 71:12	62:4 78:24 84:21	thus (2) 150:15 197:8	61:15 64:25 69:11
90:16 93:12 95:24	97:12 111:11	153:13,23	73:16 86:23 90:24	104:10 117:13,25	tick (1) 107:17	75:13 82:10 128:15
104:13 106:16 115:2	terms (14) 27:19 39:3	154:5,9,13,14,21	98:9 104:22 125:22,24	122:2 134:24	ticksic (1) 121:22	131:14 132:19 134:4
129:7 131:11 133:10	40:4 47:11 51:15 63:1	156:2,20 159:21	129:2 131:9,12	138:14,21 141:24	tie (1) 71:17	188:23
166:7 176:13 179:4	71:25 89:9 124:24	160:12 161:19,20	132:6,10 134:7,9	156:14 169:20 187:6	tied (2) 36:13 69:1	topic (6) 40:2 91:6
181:14	141:17 165:10 182:7	162:3,5,20,21,23	140:13 143:10 144:15	205:8 209:23	tile (3) 139:15,19 140:4	109:16 116:7 167:9
talks (2) 102:19,23	190:17 212:15	163:4,15,23	151:5 152:25 154:6	therein (1) 209:23	time (118) 2:2 3:16	206:16
tall (1) 9:24	terracotta (3)	164:6,19,22,23 165:5	157:3 168:10,13	theres (21) 23:10 68:3	4:2,6 6:22,24 8:23	totally (1) 77:11
tape (1) 149:7	139:15,19 140:4	167:8	180:14 182:5,6,10,11	144:1,1 145:10 147:2	10:12 13:11 14:16	touches (1) 57:4
tar (1) 33:21	terrible (2) 154:22	168:4,12,12,15,25	183:5,24 186:7,8	151:24,24 152:13,14	15:22 18:5,24	towards (14) 4:14
tarec (1) 33:21	213:6	169:19 170:3,5	189:25 190:15,16	154:22 162:25 163:3	26:15,23 27:1 28:24	6:22,23 16:25 21:10
targeted (1) 124:1	test (349) 8:18,22,23	171:9,24 173:11	192:15 194:21 195:16	169:8 176:18,18	29:8,11,14 33:5 34:18	68:23 69:10,15 79:4
targeting (1) 95:16	9:1,5,6 14:3,7 17:19	174:3,6 176:1,9,13	197:6,12,22 199:9	183:8,9,9 210:19	36:23 40:10 41:19	83:16 84:6 89:13
tasked (1) 44:5						

113:5 176:21	underneath (4) 23:10	45:10 48:23 51:20,22	viscosity (3) 167:2	102:25 119:4,7 127:10	106:23 108:8 119:25	153:4 158:22 161:4
tower (2) 22:22 125:18	50:22 76:16 159:11	58:22 63:1 66:24 67:7	184:12 185:7	133:13,20 135:15	132:12 133:18,18	162:23 163:5 165:12
toxic (2) 202:15,19	understand (29) 11:4	68:2,16 69:4 70:3	visit (1) 195:11	136:2 141:18 157:4	152:17 192:9,11	168:7,10 169:1 171:11
trace (2) 188:16 195:10	22:8 26:19 28:16	73:25 74:7,8,12,16	visiting (1) 161:13	166:15 171:5 188:17	196:15 204:12 210:25	172:8 173:1 174:18
traceability (1) 36:9	31:12 36:20 38:4,25	75:5 76:22 77:24	voice (1) 2:7	weve (12) 20:12 22:10	211:6 213:2	176:16 178:1 179:3
tracy (2) 101:2 103:25	52:14 54:11,15 61:16	78:24 79:13	voiced (3) 128:22 161:7	65:23 67:4 86:23 92:1	worked (7) 4:2,2 46:20	181:16 183:1,7 187:9
trade (2) 65:23,25	71:13 82:12 85:4,5	82:12,14,22 88:13,22	200:2	99:15 131:15 158:8	51:14 64:25 77:17	188:12 195:17,20
traditionally (2) 96:23	90:16 110:11 123:3	89:2 92:9 97:25 98:4	void (1) 154:14	177:23 206:2,10	187:4	197:20 198:12,15
102:1	134:25 172:23 174:15	99:2 101:8,13 103:21	vs (1) 197:6	whatever (5) 174:17	working (7) 3:5,9 69:15	205:17 206:4,12 207:2
trail (2) 181:1,10	178:15,15 184:12	104:5,18 111:15 116:8		183:12 188:14 189:1	130:19 184:12 187:2	208:13 211:6,9,12
training (2) 8:20,22	187:3 191:5 193:16	117:15 118:7 123:24		195:8	201:4	212:1,3,12
transcribing (1) 2:8	203:3	127:24 129:17 134:1		whats (15) 11:6 14:22	works (2) 44:18 148:20	year (2) 14:4 40:25
transcript (2) 59:16	understanding (25)	135:8 136:25 137:2		39:3 40:4 76:1 82:23	world (3) 70:11,21	years (14) 4:4 5:21
200:22	1:24 9:17 13:5 16:5	141:17 142:15 143:2	waited (1) 209:17	83:14,21 120:14,16	174:8	37:20 39:12 41:7 58:2
transfer (2) 33:14 34:24	26:15 29:14,17 35:11	146:5 148:6 150:1	waiting (2) 184:9	121:19 128:23 148:6	worry (2) 169:14 210:16	89:8 101:1 102:13
transferred (2) 34:16	36:7,10 49:2,9	168:24 171:24 182:14	walk (1) 135:5	171:8 172:11	worse (7) 128:4,6,7	108:15 128:14 133:11
124:21	66:17,24 78:22 87:19	183:16 195:15 196:3	walked (1) 135:3	whenever (1) 189:3	143:8,10 191:20,22	135:11 143:1
transition (3) 34:24	88:19,20 93:20 94:3	201:5 204:17 207:11	wall (13) 9:7 24:16	whereas (1) 180:23	worsening (1) 155:13	yellow (1) 138:11
125:2 176:19	96:2 119:17 124:25	210:22	40:23 44:8,14 83:22	whilst (2) 110:17 174:4	worst (1) 137:9	yet (4) 66:15 100:13
transparent (2)	185:24 194:12	useful (1) 104:25	84:13 85:13 102:24	white (1) 191:20	worstcase (1) 137:4	106:18 181:6
186:6,12	understands (1) 34:23	uses (1) 136:19	164:12 175:9,12 193:6	whole (2) 104:18 205:18	worth (2) 72:13 131:11	youd (1) 62:9
tread (1) 192:14	understood (15) 17:13	usher (2) 57:9 114:15	waller (1) 94:14	wholly (1) 138:22	wouldnt (20) 52:14	youll (2) 92:4 133:21
tremendous (1) 157:20	28:13 29:8 32:23	using (20) 17:18	walls (4) 141:24 207:24	whose (3) 53:23 58:5	72:14 77:12 79:15	youre (54) 6:24 10:7
trespa (1) 45:15	34:17 54:10 61:12	30:9,14 48:8 57:23	208:3,12	118:22	85:15 110:1 111:23	12:12 13:18 21:19
trial (7) 14:1 172:19,19	88:24 90:7 92:8 99:18	72:4 88:12 98:15	wanting (2) 44:17 208:2	wide (1) 55:1	128:4,6,7 137:10	28:23 39:14 49:9
175:24 180:7,10	104:13 107:11 179:1	113:12 118:14	warehouse (1) 188:24	widely (1) 82:22	149:21 150:2 171:16	62:10 71:24 72:4
184:18	191:11	124:17,20 135:1 169:5	wasnt (38) 6:14 9:3	wider (4) 64:7,16 79:8	185:8 188:12,14	77:24 78:6 84:17
trialedsic (1) 181:7	undertake (3) 14:1,6	173:4,11 175:8 183:14	19:15 27:24 32:6	86:12	197:23 201:15 211:5	89:14 92:11 94:20
trials (1) 38:6	58:5	191:6,17	42:10 69:20	widths (1) 174:5	write (8) 91:11 94:12	95:12,24 96:2,10
tried (11) 21:4 46:4	undertaken (5) 58:10	utilised (2) 47:3 78:23	70:6,10,20 74:22 89:7	wilkinson (2) 133:1	102:14 106:7 116:19	97:24 102:18,20
69:8 89:24 129:9	89:9 125:20 127:7	utilises (1) 81:2	111:3 112:4,5,25	189:18	121:16 132:14 198:15	103:20 110:2 112:13
135:14,16 142:10	169:3	utilising (3) 25:4 27:1	113:14,21 115:12,17	wilson (2) 58:16 159:7	writes (9) 105:23	114:11 118:14 119:11
154:9 173:16 196:15	undertook (5) 39:5	185:21	118:12 133:9 135:25	window (4) 69:24 76:10	109:12 110:5 183:21	122:4 123:3,4,22
trouble (1) 179:10	83:7,8 84:4 145:2	utilized (1) 97:17	138:1 142:19 143:22	77:6 148:17	189:22 190:23 207:8	132:16 134:12 155:14
true (5) 2:18 47:3	undesirable (1) 196:9		149:24 152:24 158:4	wing (1) 164:12	209:7,8	157:7 158:24 163:9
102:12 117:17 177:5	uneducated (1) 107:22		167:3 168:25 178:17	wise (4) 192:16 193:19	writing (10) 116:20	164:5 172:5 173:10
trusted (1) 107:1	unfair (1) 121:5		195:19 199:23 205:21	194:21 195:12	125:13 127:4 130:1,7	174:22 175:14,25
try (8) 2:6 26:18 44:25	unfortunately (7) 24:17		208:6 212:11 213:22	wish (3) 81:16 132:10	158:7 189:13,17	185:2 188:18 191:23
130:8 135:18 158:12	72:21 75:22 129:18		watch (1) 58:24	207:13	191:16 203:15	192:24 193:17 199:4
163:10 166:19	133:3 179:21 180:21		water (1) 190:5	withdrawing (2) 126:23	written (23) 17:14	209:8 214:16
trying (19) 27:25 39:17	university (1) 3:5		watford (1) 80:18	127:3	28:24 37:3 53:13 54:4	yourself (4) 1:13 60:15
84:2 107:8 116:23	unknown (2) 87:15		watt (1) 30:5	withdrawn (2)	55:7,8,12,16,20 63:8	64:21 82:7
122:19 127:24 148:22	88:18		way (29) 2:1 23:21	121:13,20	78:2	yourselves (1) 207:14
164:15 166:17 172:18	unknowns (1) 86:2		75:19 76:9 104:22	witness (45) 2:11,16	116:11,14,15,24,25	yoursic (1) 180:20
176:21 183:13,13	unless (4) 72:3 89:22		106:17 113:4	3:25 4:20,25 7:5 10:5	117:1 119:11 121:8	youve (7) 19:2 22:20
187:11,11 194:4,5	144:10 180:14		116:23,25 121:8 134:2	12:2 21:16 35:19	159:12,15 198:6	29:9 107:16 123:16
204:5	unofficial (2) 159:20		135:2,6,22 137:15	42:18 44:2 46:8 49:18	wrong (2) 106:22 150:9	177:5 206:1
tuesday (2) 146:21	160:3		156:2,13 157:7,15,17	53:10 57:7,17 59:15	wrote (4) 60:5 101:1	
214:25	unperforated (13)		161:2 163:13 174:22	63:2,22 73:18 76:20	143:21 157:24	
turn (3) 43:2 61:2 151:6	19:10,13,23 36:18		178:22 182:7 190:17	83:18 84:15 89:12		
twothirds (2) 6:4 113:4	42:4,6 66:21,23 88:3,7		203:19 211:5 213:23	114:13,23 116:13		
type (10) 70:3 74:7	155:25 173:12,17		ways (1) 145:17	124:13 129:5 132:11		
82:13 100:14 107:7	unsure (3) 92:4 182:7		weather (1) 110:15	146:10 160:12 167:16		
110:12 134:19 137:7	190:17		weathering (1) 74:5	178:11 195:3 200:23		
174:20 183:11	until (17) 4:3 7:4 32:2,7		website (1) 27:16	201:17 206:15,17,20		
types (3) 25:4 129:18	51:8 58:2 61:11 62:6		wed (16) 10:17	211:19 212:1		
201:10	89:7 137:12,22 176:2		26:18,21,22 55:3	214:17,19		
typical (4)	177:24 178:6 179:6		72:16 98:7 121:4	witnessed (9) 8:23 9:1,5		
139:10,11,12,24	208:18 214:24		131:12 133:17,18	32:15 147:6 183:4		
typo (1) 139:7	unusual (1) 74:1		136:1 142:23 160:10	192:16 193:18 194:22		
	unventilated (1) 31:25		168:23 189:8	witnesses (3) 1:5		
	unverified (1) 62:1		wednesday (1) 61:1	147:1,3		
	updated (2) 38:7		week (4) 5:17 80:19	wood (1) 23:21		
	137:22		106:20 163:16	wool (4) 163:16		
	upon (2) 69:5 74:4		weeks (5) 180:7,11	168:12,15 174:20		
	ups (2) 126:4 131:24		190:20 208:19,21	worded (2) 117:25		
	upset (1) 178:1		weight (4) 14:23,25	121:9		
	urgent (1) 6:16		15:1 166:20	wording (9) 27:4 83:10		
	usage (1) 104:9		welcome (1) 1:3	122:17 124:5		
	used (77) 12:20 13:3		went (6) 72:10 128:14	136:20,25 206:25		
	15:15,18,20 18:19		130:24 131:5,20	207:11 209:23		
	19:22 24:15 28:20		196:18	work (20) 38:3 56:7,11		
	29:15 33:18,25 42:1		werent (19) 13:9 28:20	65:13 67:12 95:13		
			42:14 44:11,17 73:9			

10 (7) 105:24 162:9 164:2 170:4 214:14,21,24 100 (2) 15:10 114:18 1000 (1) 1:2 10000 (1) 44:22 1009 (1) 180:4 100mm (2) 180:7,10 1035 (1) 105:4 1057 (1) 73:20 11 (5) 13:25 24:19 25:25 26:4 106:7 111 (1) 42:20 1111 (2) 63:23 105:17 1113 (1) 46:11 1114 (1) 47:12 1116 (1) 49:24 1117 (1) 51:2 1118 (1) 57:12 1121 (1) 52:21 1129 (1) 192:6 1135 (3) 57:1,11,14 114b (1) 43:13 115a (1) 21:17 115e (1) 59:16 11th (1) 96:5 12 (2) 2:13 162:11 1200 (1) 67:9 1252 (1) 105:24 127 (1) 24:8 13 (5) 32:3 161:25 162:3,6 163:24 135 (73) 9:3 24:23 29:6,8,11,17 52:11 58:1 62:16,19 84:22,23 89:5,16,21 90:2,9,11 91:15,20,23 92:9,15,23 93:21,23,25 94:19,21 95:6,8,14 97:2,6,11,13 99:12,16 101:20 102:6,9,15 103:4 105:21,25 107:21 108:22 111:8,19 112:3,11,14,23 115:2,6,14 120:25 121:3 122:8,15,16,25 123:7,11 129:17,19 138:14 140:12 141:23 142:6 150:16 205:11,16 13501 (3) 20:11 40:11,14 137 (3) 24:7,9,13 14 (3) 96:6 162:6 164:5 14000 (1) 14:7 1447 (2) 208:18 210:10 14th (1) 146:16 15 (3) 89:13 132:6 162:10 1548 (1) 181:24 15th (1) 146:18 16 (5) 4:4 164:10,17 189:19,21 1647 (1) 13:21 1650 (1) 110:6 1652 (1) 183:21 17 (3) 162:12 192:6 193:24 17minute (1) 162:17 17minutes (1) 150:13 17th (2) 146:17,19 18 (39) 17:24 28:15,19	29:1,16 53:14 54:5 58:8,20 85:10 96:22 97:17,20,25 98:15 99:2 101:25 103:12,21 104:6,18 117:21 118:8 120:15 121:23 122:21 135:9,23 136:11 138:15,22,23 139:25 141:25 143:2 145:20,20 194:8 212:6 1801 (1) 180:18 18m (8) 16:20 22:23 23:8 24:14,25 28:8 30:15 105:11 18metre (1) 10:25 18metres (4) 117:13 122:8,16 199:1 18mm (1) 145:19 19 (1) 22:17 1960 (1) 95:25 1983 (1) 96:1 1999 (4) 3:3 4:3,8 96:5 1a (1) 4:1 2 2 (23) 10:5 12:3,10,11 84:20 105:23 109:11 114:12,17 126:10 129:11 132:3 139:2,10 146:7 150:11 169:8 181:23,25 183:20 192:5 198:13 205:8 20 (4) 145:5 146:11 160:16 161:24 200 (1) 114:20 2001 (6) 4:20 11:7,10,16 13:8,9 2002 (7) 30:3,21 32:3,5,7,14 43:14 2003 (4) 13:16,25 16:6 33:17 20032004 (1) 10:15 2004 (14) 10:10,14 16:9,10,13 17:14,14 18:16 19:22 22:17 25:19 28:14 87:2,14 2005 (96) 4:9,11,22,25 5:4,11 7:7,9 8:18 19:22 21:14,19 49:10 57:21,22,24 58:5 59:20,23 60:6 64:4 65:19,20 67:1 73:22 74:9 75:15 77:20,22 80:11 85:1,5,12 87:18,21,22 88:15,22 89:2,3,6,11,15 90:21 91:9,10,20 93:24,25 98:1,5 99:12,17 101:8 103:4,6 104:20 107:18 109:8,19 111:1,18,19 112:4 115:21 116:7,11 120:13 125:25 126:7,12,13,19 127:2,7,12,21 128:10 130:14 134:1,7 136:21 137:11 142:19,25 144:19 146:2 160:17 161:20 162:20,21 164:16,19 171:24 185:14 204:24 2006 (11) 36:25 91:8,10 112:4 121:14 124:18	126:20 127:3,7,21 132:20 2007 (11) 124:21 144:7 145:5 146:11 150:7 160:16 161:19,24 163:23 165:5 168:8 20072008 (2) 129:2 183:4 2008 (31) 7:2 90:21 100:25 102:14 105:2,3,24 108:17 144:7,8 145:8 168:3,9,25 169:5 173:24 179:24 181:21 186:16 189:19 193:24 196:19,23 198:4,6 202:1,4 203:19 207:4,7 211:21 2009 (1) 208:18 2010 (2) 4:20 46:22 2011 (3) 137:20 140:2,7 2012 (1) 8:9 2014 (3) 43:15 89:15 125:25 2015 (14) 4:3,12,15,15,23,24 5:2,5 7:9 58:3 89:8 109:7,10 110:6 2016 (2) 137:22 211:21 2020 (5) 1:1 2:13 85:24 125:7 214:25 20k (1) 122:1 20mil (1) 77:11 20th (2) 146:18,20 21 (1) 162:19 22 (5) 3:17 164:14,17,18 190:7 220876 (3) 57:23 126:6,11 23 (4) 1:1 56:4 125:7,11 24 (4) 91:8 206:1 207:7 214:25 25 (6) 14:2,21 16:23 17:12 18:19 163:4 250k (1) 132:12 25micron (7) 14:10 17:17 18:7 19:14,21 32:23 88:7 26 (2) 16:13 80:11 27 (2) 202:1,4 28 (3) 58:3 89:8 200:23 29 (2) 53:12 105:3 290104 (1) 16:24 3 3 (7) 30:5 60:15 81:6 109:19 150:20 153:12 186:16 30 (7) 60:6 62:13 106:19 113:2 182:15 190:4,10 300 (1) 131:11 300ks (1) 72:13 31 (9) 22:1 57:22 65:19 85:24 87:22 88:15 89:12,14 116:14 317 (1) 167:20 318 (1) 124:14 325 (1) 56:4 33 (1) 84:15 335 (3) 167:14,19,22 36 (1) 164:2 3a (1) 10:6 3e (1) 12:3	 4 4 (7) 12:9,11 18:15 60:16 84:20 180:17 196:23 40 (1) 117:14 40mm (1) 81:3 43 (1) 162:12 443 (1) 53:12 445 (1) 214:23 47 (2) 60:25 151:11 476 (3) 24:18 25:25 26:4 4766 (2) 23:14 41:12 4767 (1) 41:12 48 (1) 151:11 5 5 (9) 23:16 30:5 116:11 129:6 131:24 180:1 204:19 207:4 208:18 50 (2) 14:22 42:19 51 (1) 43:12 5111 (1) 23:17 54 (1) 21:17 55 (1) 59:16 57 (1) 162:6 58 (1) 52:24 6 6 (9) 60:16 65:22 67:3,9 105:17 140:15 141:13 147:11 169:5 60 (1) 87:23 600 (4) 62:2,11 67:11 150:15 600c (1) 205:8 60millimetre (2) 22:1 87:17 60mm (2) 21:23 81:3 61 (1) 200:23 6mil (2) 137:3,7 6millimetre (2) 67:22 205:1 6mm (2) 73:24 113:8 7 7 (6) 23:14 36:23 145:8 161:21 202:16 204:19 71 (1) 204:23 72 (2) 63:2,23 75 (1) 2:13 8 8 (3) 57:24 109:10 121:14 80 (2) 144:9 181:3 8000 (1) 132:6 8414 (48) 17:1 20:19 21:11,13,20,25 22:3 29:18 30:22 31:20 42:22 43:14 45:1 50:15 57:21 58:6 64:4 69:22 73:9,22 84:20 85:2,10,23 94:24 95:7,13 97:5 98:25 103:19 106:2 107:5 108:19 110:13 112:10 117:9 123:8 125:13,22 129:10 132:3 134:1	136:21 139:1 182:5 190:15 204:24 205:5 84141 (14) 32:2,6 80:17,22 102:8 109:18 122:7 128:19 129:12 130:14 139:2 146:1 207:23 208:12 841412002 (4) 30:4,14 32:6 120:23 84142 (4) 100:14 144:10 145:2 146:4 84142002 (2) 138:13 141:3 8414sic (1) 123:8 8th (1) 126:11 9 9 (15) 8:24 9:2,2,5 29:18 81:13 110:6 129:5 162:4 169:4,9 173:24 175:22 179:24 180:18 900 (1) 67:9 9000 (1) 38:21 915 (1) 106:7 919 (1) 195:22 922 (1) 173:24 937 (1) 169:9 942 (1) 175:23 950 (1) 207:7 958 (1) 189:21
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