



GRENFELL TOWER INQUIRY RT

Day 312

November 10, 2022

Opus 2 - Official Court Reporters

Phone: 020 4515 2252

Email: transcripts@opus2.com

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

Thursday, 10 November 2022

(10.00 am)

SIR MARTIN MOORE—BICK: Good morning, everyone. Welcome to today's hearing. Today we're going to hear overarching closing statements from two more of the core participants, before we hear a final statement from Counsel to the Inquiry.

The first statement we're going to hear is going to be made by Mr Sean Brannigan King's Counsel, who has agreed to, I think it would be fair to say, stand in at the last minute for Mr Michael Douglas King's Counsel, who we have heard from before on behalf of Exova, but unfortunately is not well enough to attend today.

So, Mr Brannigan, when you're ready, please come up to the desk and we'll hear what you wish to say to us.

Closing submissions on behalf of Exova by MR BRANNIGAN

MR BRANNIGAN: Members of the Inquiry, as you have just indicated, I appear on behalf of Exova instead of Mr Douglas. He thanks the tribunal for their kind wishes, and we are grateful for the time you have afforded to us to allow me to step in.

As you're also aware, a number of the other core participants have elected not to make oral closing submissions. We have decided to take a different course. Exova have always taken the view that full and

1

committed participation in this process is essential, and that's really for two reasons. The first is that such participation is essential in order to both honour and respect those who have been affected by the tragedy at Grenfell. The second is that we have always seen it as part of our role to assist where we can to try and work out what I would describe as the centre of gravity of causation around which this tragedy occurred. As a result, I rise today to try and assist with some limited further submissions.

As you have just said, Chairman, it's the first time I personally have made submissions to this Inquiry, and it is of course the last time that my client will. It is therefore right and appropriate that I start, as Mr Douglas started with his opening submissions many months ago, to pay tribute both to those who died in the tragedy, and tribute also to those who have been left dealing with the effects of it. That tribute is one that is easy to give on behalf of Exova and its team, because those who have been left have dealt with this tragedy in a way which is dignified, brave and human, and, for what our views are worth, we can only commend them for that.

I will not repeat the submissions we made in writing; I don't think that would be helpful, and it's

2

clear that the panel will read them. Rather, I will seek to do two things in the 30 minutes or so that I have this morning: firstly, I want to explore with the Inquiry this morning the conduct of the parties that has overall been the most significant in terms of culpability, causation of injury and loss of life, and of course long-term loss of trust and confidence in the construction and regulatory system. Secondly, I want to pick up towards the end of these short submissions a couple of other points of detail that arise from the overarching submissions made by the other parties.

In the course of doing so, of course, I will seek to respond to points that have been made about Exova. I do so with humility, recognising that there might be an element of people saying, "Well, of course they would say that". But, as I say, Exova from the start has taken the view that everybody needs to do their part in the bits they know most about to try and establish the real reality of what happened here in order to do our best to ensure this does not happen again.

So turning then to the first of the issues, the conduct of the parties, which has been the most significant.

The Inquiry will no doubt have its own views as to how to approach that very difficult and multi-layered

3

question. My submission is that a helpful approach, if only in concert with other approaches, is to first seek to identify the key decisions which led to the disaster and, having identified those key decisions, turn to consider the fundamental factors which led to those decisions being made. That first step, identifying the key decisions, we respectfully suggest, is significantly easier now the evidence has been heard than it was whenever the Inquiry started.

I respectfully suggest it's now clear that, of all the decisions which led to the Grenfell disaster — and there were many — there are two which are absolutely critical. The first is the decision to use Reynobond ACM PE as the cladding material on the exterior of the tower. The second and related decision was to use that material to form the architectural crown which ran around the top of the building.

We say that standing back and looking at it really for two reasons: the first is the horrifying visual images of the blazing tower on the night of 14 June 2017, and of course we now have, as a result of the work done by the Inquiry, the experiments conducted at Edinburgh University under the supervision of Professors Bisby and Torero, and we respectfully suggest that it is clear from both that the use of the ACM PE,

4

1 in and of itself , and in addition the use of that within
2 the crown, was the source and cause of a fire which was
3 otherwise unlikely to have spread in anywhere near the
4 same way.

5 It may be the Inquiry concludes that but for those
6 two fateful decisions, the fire which occurred would
7 have been contained to a single flat or a single corner
8 of the building. Those two linked decisions were in
9 turn made as a result of factors which I now turn to and
10 which I do not shirk from saying were indefensible.

11 The first and most important factor was that this
12 ACM material was not only available but promoted in the
13 marketplace, despite it being known to those who made
14 and promoted its use to be a severe risk to life. We do
15 not say "known to be" lightly. We use those words
16 because it is now clear from the evidence you have heard
17 that during the development and production of that ACM
18 material, critical safety tests and classification
19 results were concealed, were manipulated, and were
20 misrepresented, and that those things happened to the
21 extent that the use of the material in high-rise
22 residential buildings over the years became relatively
23 commonplace. That concealment, manipulation and
24 misrepresentation, we would suggest, is a profoundly
25 shocking and central causative factor in this case, and

5

1 clearly a central causative factor that led to both of
2 the key decisions I have just outlined.

3 Equally shocking, of course, was the malpractice
4 engaged in by Celotex and Kingspan in the development
5 and testing, promotion and sale of Celotex RS5000 and
6 Kingspan K15. And, as the Inquiry now knows, whilst
7 those products did not have the same causative effect in
8 terms of fire spread, the toxic smoke which emerged from
9 the fire, those two products were a key component
10 within.

11 The second and important factor which led to the two
12 decisions I have outlined being made was the
13 prioritisation of cost over virtually any other factor,
14 including very many of the factors that a number of the
15 other core parties have mentioned on behalf of
16 residents. Because ACM PE, compared to other materials,
17 was cheaper both to make and to buy, it created
18 temptations which spread beyond manufacturers. The
19 prioritisation to cut costs lured RBKC/TMO to move away
20 from the more expensive zinc cladding system that it
21 appears it had been contemplating and towards using such
22 ACM PE.

23 More than that, it led them to procure that new and
24 different system in an illicit and secret process which
25 was contrary to legal advice, which circumvented proper

6

1 procurement practice, and which, standing back, can only
2 have made it more unlikely that those highly technical
3 decisions I've just referred to would ever receive
4 proper technical scrutiny. It made it much more
5 unlikely.

6 Stepping aside from RBKC/TMO and towards Rydon,
7 exactly the same factors of cost above all else led
8 Rydon to promote that move to ACM as a method of
9 recouping money which would otherwise have been lost due
10 to estimation errors when it put in its price.

11 Moving away from them, it led the remaining
12 technical team, who were aware of the sudden
13 introduction of ACM PE, to cut corners in terms of
14 proper technical scrutiny.

15 From the perspective of Exova, and understanding its
16 role in the process, the most obvious example of that to
17 us, and the example we can obviously most help with, is
18 the decision of both RBKC, TMO, Rydon and all the
19 members of the technical team to not involve
20 a fire consultant in those decisions at all, whether my
21 client or any other fire consultant. The Inquiry may
22 well think, when it sits down to review all the
23 evidence, that that is remarkable, given the nature of
24 the change that was being made to cut costs. We say
25 that because we believe and suggest that the following

7

1 three things are undisputed on the evidence:

2 (a) that there was a deliberate decision by Rydon
3 not to appoint a fire engineer, whether Exova or anyone
4 else, to the design team post-contract.

5 (b) apart from two or three ad hoc emailed queries
6 on very specific issues about which you have heard
7 evidence, no fire consultancy advice was sought from any
8 other consultant. So it wasn't even a matter of not
9 appointing one; the amount of interaction that was then
10 sought on an ad hoc basis from any fire consultancy
11 expertise was limited and ad hoc, and it appears to have
12 been left to Studio E to deal with all fire-based
13 regulatory matters.

14 And, of course, (c) Studio E's contract with Rydon
15 was not finalised until near the end of the contractual
16 period, with the result, it appears, that Studio E's
17 view of their contractual obligations differed
18 materially from Rydon's. You may think, whenever you
19 are considering and weighing up the evidence, that if it
20 is correct that both parties' view of what Studio E was
21 going to do was materially different, that can only be
22 because of a lack of management and a lack of
23 prioritising safety over cost, which would have led to
24 all of those things being sorted out earlier.

25 So we say the key decisions, then, are a result of

8

four things arising from those factors: (a) a framework of regulation and guidance that, as Dame Judith Hackitt has said, was not fit for purpose, nor fixed when those who oversaw it knew that to be the case; (b) manufacturers who knew and exploited the weakness in that framework; (c) decision-makers who cut corners to cut costs and cover up their mistakes; and (d) participants who failed to recognise the limits of their expertise, combined with management who failed to grapple with that fundamental problem.

Those conclusions are easy to state, of course, now we have seen the evidence; not so easy before this Inquiry started. But we say they arise from any structured approach to trying to review the evidence, going back in each case to the position of each participant when they first became involved; going step-by-step through their actions, looking at the circumstances as they were at that time, and what information they had; asking where in the sequence of events did a particular participant make any decision or do any work, and in reliance on what information and so on; then setting that picture against the matrix of contractual terms, regulations, guidance, prevailing practices and so forth; and then, on the basis of that, stepping back and saying: of all the failures of

9

everybody involved in this project, what really were the key things that ended up with those key decisions being made?

In a way, so far, one would suspect, so uncontroversial, but it's against that background that I have to turn, then, to the suggested ranking of responsibility amongst the different participants which has been put forward in some of the overarching submissions you've heard. In particular I turn to the suggestion recently made that specifically in relation to the reason to use ACM, Exova, my client, should be regarded as being put in a primary group of responsibility along with Arconic and Studio E, ahead of a secondary group of those who actually made the decision to use it, which is Rydon, KCTMO, Harley, building control and others. We respectfully disagree and, indeed, express some surprise at that ranking.

We suggest that when everyone stands back and looks at the history I have just outlined, that cannot be correct. It cannot be correct in particular that Exova, who was not part of the post-contract design team, and who nobody at the time regarded as being part of that team, and who nobody at the time told that these decisions either were being made or had been made, should be lumped together in lists with those who share

10

all those characteristics. We express some concern that any such lumping together doesn't properly place what I have described as the centre of gravity.

So, in short, then, Exova was not responsible or party to any of the key decisions which were made. At the time Exova provided its draft reports, there was no intention to use ACM PE. We say that emerges quite clearly from the evidence. When RBKC, TMO and Rydon decided to prioritise cost by selecting ACM PE, and then deciding to use it to form a crown at the top of the building, they did not ask Exova about that and Exova did not advise them on that. No, more than that; Exova were not even told.

So that's the decision-making, and in terms of the factors which I have sought to identify which led to that decision-making. Exova had no part at all in the detailed design of the façade and, vitally, Exova had no part at all in the promotion to either TMO or the market as a whole of ACM PE. Exova had literally nothing to do with any of that. Equally, it literally had nothing to do in the decision by those who were doing the construction to prioritise cost over other factors. The saving of cost formed no part of its role. It was not asked to advise on cost savings. It did not advise on cost savings. It was not invited to the secret meeting

11

by which Rydon secured its appointment on the basis of cost reductions; it played no part in the failure by RBKC, TMO and Rydon to follow the change control procedure required by Rydon's contract in approving the switch to ACM PE; and it played no part in the management of those cost-saving measures and, in particular, the failure to establish who was responsible for dealing with Building Regulations and who was going to grapple with that. It had no part in any of that. We can see that from the timeline.

Again, we suggest the evidence is clear: over the period from the end of October 2012 until the end of the refurbishment, Exova was invited to a total of two meetings with building control. They happened in November 2012 and September 2013. It was invited to no meetings at all after Rydon's involvement, and no meetings at all after the choice of building materials. No one at the time took the view that Exova were playing any role which meant that it should be so invited. There was no suggestion that in any meeting anybody turned round and said, "Hold on, where is Exova?" Nobody thought they should be there.

Even before Rydon's appointment, though all the other parties received Studio E's stage D report in August 2013, it was not provided to Exova. Again, that

12

1 was not an accidental omission; it was not presented or
2 provided to Exova because nobody thought, it appears,
3 that Exova should have it.

4 The NBS formed a key element of the employer's
5 requirements for the tendering process. It was provided
6 to all the prospective contractors and was the basis for
7 their bids. But it was never provided to Exova, either
8 for comment or information. Again, that was not
9 accidental; nobody ended up saying, "How did we miss the
10 email sending it to Exova?" It was not sent because
11 nobody thought Exova had any business having it.

12 Every single one of the other parties involved in
13 the project was aware of the decision to use ACM PE at
14 Grenfell Tower. The TMO, Harley and Rydon expressly
15 pushed for its use. TMO, Studio E, Harley and Rydon
16 were directly responsible for its selection, and RBKC
17 approved its use. Exova didn't even know it was
18 happening.

19 Once Rydon was appointed, its first step was to
20 formalise the switch to ACM whereupon it instructed the
21 design team — and we'll just talk in a second about
22 what that means — to start work. But none of the other
23 parties thought that Exova was part of that design team,
24 nor relied on Exova in determining their decisions or
25 behaviour.

13

1 It is important, against that background, to note
2 that, although some of the other participants in their
3 submissions now make submissions to the contrary, none
4 of those submissions is based on the evidence of any of
5 the witnesses who worked with Exova on the project or
6 any of the contemporaneous communications, save for one
7 exception. That one exception is Mr Crawford of
8 Studio E, who in his oral evidence, though not his
9 written evidence, suddenly recalled a conversation with
10 Mr Ashton. You have heard evidence on that, and you
11 will either have taken a view or you will in due course
12 take a view as to whether or not that conversation
13 happened. Mr Ashton said it did not, and we
14 respectfully suggest that, in the circumstances in which
15 that suggestion was suddenly made orally in evidence
16 without any supporting documentation, that evidence
17 should be accepted. Rather, the submissions in closing
18 by other participants that Exova should be regarded as
19 towards the front of the line, if I may put it in that
20 colloquial way, in terms of what happened, is based on
21 Dr Lane's report.

22 Now, in Module 1 and oral submissions, Exova was
23 critical of Dr Lane's evidence, and a lot of those
24 criticisms about her stage 1 report remain. But more
25 importantly than our criticisms is this: the Inquiry may

14

1 think it's really quite important to note that Dr Lane's
2 issue 2 report and her oral evidence led to
3 a significant reduction in both the nature of the
4 criticisms and the extent and, if I may put it this way,
5 the ferocity of the criticisms that were being made
6 against Exova. That is not an accident; it reflects, we
7 respectfully suggest, the evidence which emerged between
8 the two reports.

9 The important ways in which her evidence has moved
10 on we say can be found — and of course you're not going
11 to turn it up now, but I'll give the reference — at
12 {Day174/9—20}, on 14 September 2021. The Inquiry will
13 of course re-read that transcript, but the passage I've
14 just cited, we respectfully suggest, is really quite
15 important from the perspective of dealing with the issue
16 that I seek to try and help with, where the centre of
17 gravity lies in terms of what happened.

18 In summary, in the passage of the report that was
19 set out at that bit of the transcript, Dr Lane conceded:

20 First, the importance of the change of cladding
21 material to ACM PE, as I've just discussed, and the
22 importance of the fact that Exova was not informed or
23 consulted about it. She, by that stage, in my
24 respectful submission, had come to recognise that that
25 is quite an important factor.

15

1 Secondly and importantly, Dr Lane said she could
2 understand why, before 18 September 2014, Exova may not
3 have read or proactively sought relevant information
4 about the external wall build-up upon which to base its
5 fire strategy.

6 Thirdly, this was then expanded in her oral evidence
7 to acknowledge the very limited practice amongst
8 competent members of the fire profession before Grenfell
9 in relation to the checking of materials.

10 On analysis, since acknowledging that Exova was
11 unaware of the proposed use of ACM, Dr Lane nowhere in
12 her report or oral evidence expressly or implicitly
13 criticises Mr Ashton for not having noted or advised on
14 the proposed use of ACM. I'm going to turn to Celotex
15 in a second, but I underline ACM there, and
16 I respectfully submit that the submission I've just made
17 is plainly correct when you come to look at her
18 evidence.

19 Rather, her criticism now appears to turn on two
20 suggestions: firstly, that Exova failed in "not writing
21 down the recommendations or requirements of ADB2"; and,
22 secondly, an alleged failure to deal with the fact that
23 Celotex was not a material of limited combustibility
24 after 18 September 2014.

25 The Inquiry, we have no doubt, will consider those

16

criticisms carefully. Certainly we take them very seriously, and we say the following: first, neither of those criticisms, even if made out, could possibly justify the conclusion that, despite not even knowing it was happening and forming no part of the decision-making process, Exova was one of the main reasons why ACM PE came to be used; but, secondly, we respectfully suggest the tribunal will have to be careful about the weight it puts on either criticism.

Concentrating on the second criticism about Celotex, the following four points are important:

(a) as I say, at paragraph 9.4.41 of her report, Dr Lane says she can understand why, before 18 September 2014, it could be said that Exova may not have read or proactively sought relevant information about the external wall.

(b) the importance of that date appears to be the email exchanges on that day, of 18 September, in which, in an email, Exova was asked to provide ad hoc advice and a Celotex datasheet was included as an attachment.

(c) reading Dr Lane's evidence carefully, it appears clear that her criticism proceeds on the premise that Mr Ashton opened and read that datasheet, and therefore should have acted on the material he saw there.

But (d) — and we say this is quite important —

17

the Inquiry will need, therefore, to understand whether that assumption, that Mr Ashton opened and read the datasheet, is right or not. It can only be an assumption, because obviously Dr Lane doesn't know. But as to that, there is no evidence that he did. No, more than that; the evidence is that he did not.

If one looks at the transcript at {Day17/46:17–20}, you will see that, quite properly, Counsel to the Inquiry put that precise point to him, and he was entirely clear that he had not opened it and read it. There is no reason at all to disbelieve that evidence.

Leaving aside the fact that we respectfully suggest he was an honest witness, the facts surrounding that email exchange support what he says. Firstly, he is not asked in the relevant email to read or opine on the datasheet; it is appended unmentioned. Secondly, it appears to be common ground — and I submit it should be if not — that the datasheet was irrelevant to the question he was asked. Thirdly, there was nothing in his answer by email to indicate that he had nonetheless looked at the datasheet.

You, members of the Inquiry, are as well placed as Dr Lane to work out whether, in fact, the assumption underlying her criticism of him is correct as a matter of fact, and we submit it isn't.

18

That is vitally important, because by 18 September 2014, all the other parties dealing with the design of the exterior of Grenfell Tower had been aware there had been a change to the design incorporating the Reynobond ACM PE and Celotex RS5000. There was now a settled scheme on the basis of which Exova could for the first time have been asked to advise on drawings, plans or specifications, but none of the other parties sought to inform Exova of the changes, nor ask Exova to comment. That would have been the simple, professional and the only competent way of dealing with another professional if their view was sought or a further report was wanted. Mr Sounes, you will recall, acknowledged that a further report would have required a further instruction, and that surely must be right.

Against that background, to try and suggest that Exova is at the forefront of blame because it did not uncover clues in an unnamed and unmentioned document, which was related to an ad hoc question that could be and was answered in its own terms, is, we would suggest, not helpful. It doesn't accurately place the centre of gravity.

I'm conscious of the time, and I've about two minutes left, if that's okay with the Inquiry.

Lastly in this section, I should deal with the

19

criticisms which are made in a number of submissions about paragraph 3.1.4 of the OFSS. We have dealt with in some detail what we say that language means and how it should be construed. For the purpose of this closing, I would highlight one further point.

There is no evidence at all by any of the other parties of any reliance at the time upon the statement which is now criticised. That, we say, is important in a situation where none of the other participants have been slow to point the finger elsewhere and to come up with justifications for their conduct. If the other participants had relied upon in any way the wording in the OFSS, they would have said so. None of them have done. Again, if we are to understand as a group and as an inquiry the truth of what happened, that cannot, in my respectful submission, be ignored.

Three further points, if I may, and I come on to the second part of my submissions, where I said I'd deal very briefly with them.

Firstly, it's been suggested that Dr Lane criticised Mr Ashton for not picking up a reference to rainscreen aluminium cassettes in March 2015 in correspondence. In my respectful submission, that overlooks part of the transcript, {Day62/63–64}, in which Dr Lane made very clear, in my submission, the extent of her criticism in

20

that regard, and I respectfully suggest that the other parties have sought to stretch her criticism beyond where it should go.

Secondly, a point relied on by a number of other core participants is that Dr Lane in her report has argued that, despite not being appointed by Rydon, Exova continued to be engaged as a fire engineer by KCTMO, and Rydon goes so far as to suggest that therefore its decision not to appoint them made no difference. We respectfully suggest that that is simply not correct, and we point to really two points.

Firstly, KCTMO did not believe that Exova continued as their fire engineer. In their written opening, they list Exova as part of the design team pre-appointment of Rydon, but not afterwards. That again must be important. If neither KCTMO nor us thought that Exova was appointed by KCTMO, that cannot be ignored.

Similarly, Rydon's witnesses are clear about the parties on whom they relied, and that did not include Exova. Here we strongly suggest that a key point is Ms Williams of TMO's "Lakanal moment". That was a cleaving point in terms of when this position could have been saved by somebody recognising that there could be a significant problem, and, on behalf of Exova, I respectfully suggest the Inquiry may well think that

21

was a very important indeed missed opportunity. But who did she turn to when she had her "Lakanal moment" to give her comfort and to deal with it? It wasn't Exova, it was to Rydon and Artelia. Whenever she turned to them, who did they turn to? Not Exova. No one did.

Thirdly and finally, in the time available to me, Professor Torero's adequacy report. Certainly we at Exova think that what Professor Torero has done is really very valuable, and we don't seek in any way with these submissions to undermine that at all, but we do respectfully suggest that it is being misconstrued.

As we read Professor Torero's report in this regard, it is a forward-looking, not backwards-looking document. It is an attempt to say what best practice should be now, not an attempt to say that everybody who did not follow that practice in the past was, by definition, and because of that, negligent. We do suggest that there is a slight element of opportunism on behalf of other participants seeking to shift the centre of gravity away from them, to interpret what he has said as a criticism of the past, as opposed to a blueprint for how we might work forward in the future.

The thrust of these submissions, as I finish, was this: the detailed history, who was actually involved in the key decisions and who was actually instrumental on

22

the factors which led to those decisions, including the history of who was involved in them and who was excluded, is important, because it is only from that that one can take the lessons as to what happened, and only from that that this Inquiry can make recommendations as to how we as a society can make sure that the tragedy of Grenfell does not happen again. Misplacing the centre of gravity, it doesn't help anybody.

Those are my submissions.

SIR MARTIN MOORE-BICK: Mr Brannigan, thank you very much indeed.

Finally, we're going to hear from Mr Jason Beer King's Counsel on behalf of the Department for Levelling Up, Housing and Communities.

Yes, Mr Beer.

Closing submissions on behalf of the Department for Levelling Up, Housing and Communities by MR BEER

MR BEER: Thank you, sir.

As you said, this statement is made on behalf of the Department for Levelling Up, Housing and Communities, following the conclusion of all of the evidence to be heard by this Inquiry. As before, I will refer to the department as "the department".

The department is aware that in its letter of

23

10 June of this year, the Inquiry indicated that it wouldn't be assisted by the repetition of submissions already made in the closing statements for each of the modules and, therefore, the department takes this opportunity to set out some very brief closing remarks which it hopes will assist the Inquiry.

Firstly and most importantly, the department wishes to take this opportunity to record again its sincere sympathies for those who have been so terribly affected by the events on the night of 14 June 2017. The bereaved, survivors and residents groups have been a model of dignified involvement throughout your Inquiry.

Secondly, the department wishes again to apologise for its failure to ensure effective whole-system oversight of the regulatory and compliance regime. The department recognises that it failed to appreciate that it held an important stewardship role over the regime and that, as a result, it failed to grasp the opportunities to assess whether the system was working as intended. For the department's failure to realise that the regulatory system was broken, and it might lead to a catastrophe such as this, the department is truly sorry and apologises unreservedly.

Thirdly, the department wishes to emphasise its

24

1 commitment to driving change to ensure that a tragedy is
 2 never permitted to happen again, and to emphasise the
 3 work already done to this end. This department has
 4 engaged with this independent Inquiry since it was
 5 established to make sure that all of the right lessons
 6 are learned, but it has not stood by idly in the
 7 meantime. The Fire Safety Act 2021 and the Building
 8 Safety Act 2022 bring about lasting changes to overhaul
 9 a regulatory system that has been shown to have been
 10 unfit for purpose. The department has submitted
 11 a comprehensive statement to you on reforms, and looks
 12 forward to engaging with the Inquiry to ensure that any
 13 additional areas of concern are addressed. Where
 14 further change is necessary, the department is committed
 15 to implementing it. The department very much looks
 16 forward to receiving the Inquiry's recommendations.

17 Finally, the department invites the Inquiry to note
 18 its ongoing commitment to support the work of
 19 the Inquiry. The department has engaged throughout
 20 Phases 1 and 2 fully, frankly and openly, and it shares
 21 the Inquiry's aim of getting to the truth of what went
 22 wrong to prevent it from happening again.

23 Whilst the department's commitment to support
 24 the Inquiry and its recognition of its own failings
 25 cannot change the tragic events of 14 June 2017, nor in

25

1 any way compensate for the immeasurable loss and grief
 2 and suffering of the bereaved, survivors and residents,
 3 the department hopes that its sincere commitment to
 4 ensuring that such a catastrophe cannot happen again
 5 gives some small measure of comfort to all of those
 6 affected.

7 Sir, that's all I say.

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

9 Well, in a moment we're going to hear some closing
 10 remarks from Counsel to the Inquiry, Mr Richard Millett
 11 King's Counsel. It's necessary to have a break before
 12 we do that, and I think rather than interrupt what
 13 Mr Millett wants to say, the sensible course would be to
 14 take the morning break much earlier, I'm afraid, than
 15 usual, but that will, as I say, give Mr Millett the
 16 opportunity to make his remarks without interruption.

17 So we'll rise now, we'll resume at 10.55, and then
 18 hear what Mr Millett has to say.

19 So 10.55, please. Thank you.

20 (10.41 am)

(A short break)

22 (10.55 am)

23 SIR MARTIN MOORE-BICK: We're now going to hear a closing
 24 statement by Mr Millett King's Counsel, as Counsel to
 25 the Inquiry.

26

1 Yes, Mr Millett.

2 MR MILLETT: Mr Chairman, members of the panel.

3 Before I start my closing statement in this Inquiry,
 4 I should just read into the record, by way of
 5 housekeeping, a reference for ten witness statements
 6 which now need to be read in, and that is to be found
 7 under the reference {IDX0965}.

8 Closing statement by COUNSEL TO THE INQUIRY

9 MR MILLETT: At 12.54.29 on 14 June 2017, Mr Behailu Kebede

10 made the first of what was to be a torrent of 999 calls
 11 to the LFB's control room at Stratford, informing the
 12 LFB of a fire in the kitchen of his flat, flat 16, on
 13 the 4th floor of Grenfell Tower. In Phase 1 of this
 14 Inquiry, we learned what ensued then over the following
 15 minutes and hours of that summer night in West London,
 16 in which 71 residents of the building lost their lives,
 17 and a further life was lost after. The principal
 18 question for Phase 2 is: why did that happen?

19 To answer that, we have to understand the world as
 20 it had come to be as at 12.54.29 on 14 June 2017, and to
 21 understand how it had come to be that way. What was the
 22 wider context for the LFB's preparedness being as it was
 23 at that moment; for the building being refurbished as it
 24 had come to be; for the fire management arrangements for
 25 those who lived in it being as they were; for the

27

1 Building Regulations being as they were; for the
 2 cladding and construction industries being as they were;
 3 and for central government's state of knowledge about
 4 all of those matters? And what indeed was the state of
 5 machinery of government when it came to understanding
 6 and regulating fire risk, particularly in tall
 7 buildings?

8 From all of the evidence that you have heard at
 9 Phase 2, you are able to distill a single overall
 10 conclusion: that there was nothing unknown or not
 11 reasonably knowable which caused or contributed to the
 12 fire and its consequences. On the contrary, each and
 13 every one of the risks which eventuated at
 14 Grenfell Tower on that night were well known by many and
 15 ought to have been known by all who had any part to
 16 play. As a result, you will be able to conclude with
 17 confidence that each and every one of the deaths that
 18 occurred in Grenfell Tower on 14 June 2017 was
 19 avoidable.

20 The reasons were many, complex and in many cases
 21 inextricably interlinked. Some had an immediately
 22 causative effect, and others less so. It is open to you
 23 on the evidence to conclude that there was a long run-up
 24 of incompetence and poor practices in the construction
 25 industry and the fire engineering and architects'

28

1 profession; weak and incompetent building control;
 2 cynical and possibly even dishonest practices in the
 3 cladding and insulation materials manufacturing sector;
 4 incompetence, weakness and malpractice by those
 5 responsible for testing and certifying those materials;
 6 the failure of central government to act, despite known
 7 risks; failures of competence, training and oversight
 8 within the TMO, and over it by RBKC; a failure by the
 9 LFB to learn the lessons of Lakeland, and other fires,
 10 and to train its operational staff to collect,
 11 understand and to act on the risks presented by modern
 12 construction methods and materials; risks well known to
 13 some, but not all, within that institution.

14 And behind all of these discrete factors, there lay
 15 complex, opaque and piecemeal legislation, and
 16 an over-reliance by law and policymakers on guidance,
 17 some of which — including the statutory guidance — was
 18 ambiguous, dangerously out of date, and much of which
 19 was created by non-governmental bodies and influenced by
 20 commercial interests. Many of these conclusions
 21 themselves arise from admissions made in the course of
 22 submission or in the course of evidence. Some,
 23 of course, remain highly contested.

24 There are certain common structural themes that
 25 persist across the evidence: insufficient or inadequate

29

1 standards of competence; poor, ill-focused or
 2 insufficient training; lack of independent peer review;
 3 inability or unwillingness to regulate conflicts of
 4 interest sufficiently robustly; under-resourcing;
 5 short-termism; siloed thinking; over-dependence on small
 6 numbers of individuals with professed expertise; lack of
 7 internal challenge systems; overcomplicated strategies,
 8 policies, protocols, governance structures that valued
 9 the purity of conceptualism over the human experience;
 10 localism; various deregulatory policies pursued by
 11 successive governments; a fundamental failure to
 12 understand and to assess fire risk in high-rise blocks;
 13 and a concomitant failure to pay due respect to the idea
 14 of home as a physical aspect of human privacy, agency,
 15 safety and dignity.

16 Now, those are systemic and they are abstract ideas.
 17 The fire, the last moments of those who were trapped and
 18 doomed in and by that building, and the deaths that
 19 ensued, were anything but. It will therefore be
 20 crucial, when you come to consider the evidence, not to
 21 start with grand themes or preconceived narratives, but
 22 to work from what lies on the ground in front of you:
 23 the myriad shards of evidence, the emails, notes,
 24 minutes, slides, witness statements, reports, audits,
 25 certificates, which form the stories of how we got to

30

1 Grenfell and what should be done about it as a result.
 2 The focus of my closing today is culpability and
 3 causation. Listening to the last three and a half days
 4 of overarching closing statements from a range of core
 5 participants, if everything that has been said is
 6 correct, then nobody was to blame for the Grenfell Tower
 7 fire. Can that really be right? Is the answer that you
 8 are to give to the survivors, to the grieving families
 9 and to the wider public to be that the Grenfell Tower
 10 fire was just a terrible accident, just one of those
 11 unfortunate incidents that happen occasionally? Or is
 12 it to be that there are so many to blame that no one
 13 individual or organisation shoulders very much blame?
 14 Is that the answer that these core participants, taken
 15 collectively, would urge upon you? And if they do, are
 16 they really as sorry as they say?

17 When I opened this Inquiry as counsel, as
 18 Mr Adrian Williamson King's Counsel has now reminded
 19 you, and others since, I told you that all the
 20 indications were to be that some, at least, of the core
 21 participants would indulge in what I termed a
 22 "merry-go-round of buck-passing". I had hoped that my
 23 task, and so your task in turn, would be made easier by
 24 candid admission of blame. Some core participants,
 25 principally public bodies, have made carefully expressly

31

1 admissions of specific fault. My metaphor may now have
 2 become rather worn, particularly this week, but for many
 3 even now, on Day 312 of this phase of this Inquiry,
 4 the merry-go-round turns still, the notes of its melody
 5 clearly audible in the last few days.

6 And if you listen closely to the tune, you can begin
 7 to hear that many core participants have adopted
 8 a particular technique; namely, the deflection of
 9 criticism by reference to causative relevance, and then,
 10 in turn, to take a narrow and technical approach to
 11 causative relevance in order to escape blame for the
 12 fire and the ensuing deaths, but then to blame others
 13 without any regard necessarily to causative impact.

14 One striking example — and it is an example — is
 15 Celotex's position in admitting that the marketing
 16 literature for RS5000 concealed the existence of the
 17 layer of magnesium oxide on the test rig in describing
 18 the test components, as it did, but then to blame the
 19 professionals in the design team for not reading the
 20 marketing leaflets in full in order to ensure that the
 21 system being fitted at Grenfell Tower would be identical
 22 to that tested. So is Celotex blaming the professionals
 23 for their failure to read Celotex's misleading document?
 24 There are many other such examples across the range of
 25 comes. This kind of casuistry, which is what it is, is

32

not helpful to you in working out who is to blame. It is an enduring and regrettable mark of that failure that, throughout this Inquiry — but with notable exceptions, I must emphasise — those responsible for the building and the building environment being as it was on the night of the fire sought to exculpate themselves and to pin the blame on others. Expressions of regret for the victims of the fire have been as common, to the point of trite, as admissions of responsibility have been rare. A tragedy of these dimensions ought to have provoked a strong sense of public responsibility. Instead, many — not all, many — core participants appear simply to have used the Inquiry as an opportunity to position themselves for any legal proceedings which might or might not follow in order to minimise their own exposure to legal liability.

Now, quite apart from the lack of respect that that stance shows to the victims and their families, it makes your task all the harder. A public inquiry is not the place for cleverness, but for candour. The public has a right to expect that those persons who are granted core participant status in public inquiries and take all the benefits of that status will in turn act in the public interest by making admissions against their own

33

private interests where the evidence clearly justifies it. In the case of this Inquiry, that expectation has been largely disappointed, at least until witnesses were confronted with the contemporaneous documents, and very often not even then.

Many questions were asked of many witnesses for hundreds of days. One question remains: who among the core participants has actually admitted that they caused or contributed materially to these deaths? That may be one question too many and too much to expect. Humankind cannot bear very much reality.

But in the absence of an answer, the focus of my closing is to map out for you who blames whom and for what, and there are three reasons for doing that: legal, cultural and moral.

So far as legal is concerned, section 2(1) of the Inquiries Act 2005 expressly prohibits you from ruling on any person's legal liability, civil or criminal, and you have no power to determine that liability. That must remain a matter for the courts. However, section 2(2) expressly provides that you are not to be inhibited in the discharge of your functions by any likelihood of liability being inferred from any facts that you find or recommendations that you make.

I would invite you to interpret that broadly. You

34

can look at the basis on which responsibility is assumed, whether it be in the terms of a contract or the way in which such contracts were normally understood and normally performed, according to prevailing standards of the day, or other forms of legal or customary relationship. You are not precluded from concluding that persons were bound by contractual or statutory or other legal obligations, or voluntarily assumed them, and that they failed to discharge them. Nor are you prohibited from reaching conclusions about the causative effects of such an act or omission. Indeed, this Inquiry would be severely hampered in the discharge of its terms of reference were you not to be free to do that.

Your approach to issues of causation should similarly be unconstrained by the legal principles normally applicable under civil or criminal law. You should not find it necessary to investigate, for example, whether events were original causes or concurrent causes or "but for" causes. The question is whether a particular fact or event or decision, as you find on the evidence, had a material bearing on the events in Grenfell Tower on the night of the fire and, if so, to what extent and in what wider circumstances.

As to that, there is a spectrum. Some events had

35

an obviously causative potency. Some events had a much less clearly causative role. Some events served to influence the culture in the industry or industries, and in turn the regulatory response to that culture.

Although it would be unwise, and likely impossible, to seek to attribute any single originating cause to this tragedy or to devise any strict hierarchy of concurrent causes, part of your task is to seek, so far as the evidence permits, to distribute responsibility among those involved.

It would also be unwise, and likely impossible, to attempt to construct counterfactual situations, positing speculative outcomes based on hypotheses. That is because there are so many things that happened, so many decisions, so many potential causes, some in sequence, some in parallel, that the different combinations are potentially infinite. Instead, you should seek to identify where, on the evidence, there were relevant missed opportunities which, if taken, might reasonably be supposed to have had a more than minimal effect on the outcome.

The reason to investigate the maze of parallel and competing causes is not only legal, but cultural. Many of the failings of many of the organisations revealed by the fire and the evidence about it are redolent of

36

1 a culture pervasive through these organisations of
2 dissociation , blame—shifting and defensiveness to cover
3 up incompetence, lack of skill and experience, false and
4 unverified assumptions, and plain carelessness or lack
5 of engagement. There will have been many times in the
6 evidence when I don't doubt that you will have been
7 struck by how many witnesses thought that something was
8 somebody else's job, but never bothered to check.

9 And there is a moral dimension to this approach too.
10 True regret is not the repeated and mournful use of the
11 word "sorry", but the achievement of a practical outcome
12 reflecting permanent self—corrective action. The
13 families of those who died and the wider public want to
14 know who is to blame for this tragedy, how culpability
15 is shared, and what will be done about it. Based on
16 a close study and analysis of the facts, you can and you
17 must help them answer that question. It is only then
18 that the merry—go—round can stop and the families can
19 start to get some kind of closure.

20 I am now going to map out for you how many of the
21 main core participants seek to point to others to
22 allocate blame. In some cases, I must stress, you may
23 well find that they are obviously justified ; in some
24 cases, less obviously but nonetheless justified ; and, in
25 some cases, not justified at all . I am not going to

37

1 indicate to you today whether they are or are not
2 justified . That must be for you. My sole goal is to
3 present and explain the main strands in the spider's web
4 of blame in a neutral way.

5 Can I please have the presentation up on the screen,
6 please.

7 We start with Arconic. We start with Arconic
8 because Arconic, or AAP—SAS, made the ACM PE. In the
9 Phase 1 report, Mr Chairman, you identified that
10 material and its presence on the building as the
11 principal cause of the spread of the fire .

12 Arconic, for its part, specifically identifies the
13 following matters which it says are of causative
14 relevance, and we start on the night of the fire .

15 On the night of the fire , so far as the exit of the
16 fire into the cladding is concerned, from flat 16, that
17 was not caused by the ACM, but by: first, the use of
18 combustible materials around the windows; the design of
19 the window sets, which left gaps; and the use of
20 combustible insulation . Now, the combustible
21 insulation , says Arconic, played a part in the speed
22 with which the fire started to impinge on the cladding.
23 Once in the cladding, it was the presence of
24 a continuous surface of combustible insulation on the
25 opposite side of the inner cavity that was to blame for

38

1 the delamination of the aluminium skin and the total
2 combustion of the polyethylene within it.

3 Cavity barriers , lack of suitable cavity barriers .
4 Arconic also blames the presence of Aluglaze, which it
5 says was "analytically comparable" to ACM PE. The
6 contribution of the fire loads from the contents of
7 individual residents' flats gets some of the blame, as
8 does the uPVC window surrounds, and the unorthodox
9 fabrication of the panels by CEP. Arconic also blames
10 the failure of others in the supply chain to make sure
11 that the fabricated panels were suitable for use on
12 Grenfell Tower and compliant with the
13 Building Regulations.

14 Focusing particularly for the moment on combustible
15 insulation , Arconic says three things, essentially :
16 first , that the panels were only there to protect the
17 insulation from the rain and, but for the need for
18 insulation , there would have been no need for any
19 rainscreen; second, insulation was only there because of
20 the government's green agenda, and builders could only
21 achieve ever more thermally efficient wall build—ups by
22 using insulation that was not material of limited
23 combustibility; and the use of combustible insulation .
24 In the Sudbury and Taplow fires, which involved
25 non—combustible mineral wool insulation, fire spread was

39

1 contained.

2 So far as the use of the ACM was concerned: first,
3 ACM was in common use in the UK for years, says Arconic.
4 They say it was regarded as permitted above 18 metres,
5 not least because the surface of the exterior wall was
6 not required to be material of limited combustibility .
7 In that connection, nobody thought, they say, that the
8 word " filler " in Approved Document B, section 12.7,
9 extended to the core of a rainscreen panel. See,
10 for example, the 2 July 2014 CWCT meeting where that
11 very matter was discussed. Arconic says that people
12 misunderstood class 0 if they thought that they needn't
13 consider the rest of the wall build—up; class 0, after
14 all , is a product test and not a system test.

15 Of course, the UK Government decided to retain class 0,
16 despite the fact that some products achieving it would
17 not achieve class B, as the UK Government knew.

18 Coming to the BBA certificate for Reynobond 55 PE,
19 there was nothing wrong with it, says Arconic. Arconic
20 says it was precise and accurate because the surface of
21 an unfabricated panel could achieve, and had achieved,
22 a class B, and that was all it was satisfying . It
23 wasn't certifying the fixings , it says. The terms also
24 made it plain that you couldn't incorporate an aluminium
25 composite material polyethylene—cored panel in

40

1 a cladding system without conducting a holistic
 2 fire engineering assessment. It blames the design team
 3 for not reading the certificate and understanding that.
 4 It seems to be part of Arconic's case that Harley
 5 failed to stop themselves being misled about the class
 6 of panels stated in the certificate of which Harley
 7 complains by failing to investigate the difference in
 8 colour, the grey/green as tested and stated as tested in
 9 the certificate, as against the smoke silver as
 10 installed at Grenfell.
 11 Before the fire, and so far as others are
 12 concerned — a little bit of which I have already
 13 covered — Arconic blames CEP, which preferred
 14 polyethylene to FR-cored ACM panels because it was
 15 easier to mill and didn't cause damage to cutting tools.
 16 It blames Rydon, which it says should have checked,
 17 especially after Claire Williams' "Lakanal moment" email
 18 on 12 November 2014. For its part, Studio E knew that
 19 "metal cladding always burns and falls off" because it
 20 was told so in March 2015. Harley knew the same, and in
 21 any case failed to read the BBA certificate properly or
 22 at all, and all of them knew of but ignored the option
 23 of FR as a core stated as available by the
 24 BBA certificate. Exova promised but failed to deliver
 25 a future analysis of the external wall construction and

41

1 its compliance with functional requirement B4. And that
 2 Kingspan and Celotex are to blame for misleading the
 3 market about the safety and compliance of their
 4 insulation products when used on tall buildings, and
 5 that, in turn, a holistic fire engineering assessment
 6 was not required. That is Arconic's big "but for"
 7 argument on causation: it was all Kingspan's and
 8 Celotex's fault.
 9 So far as the ACM PE is concerned, it was the BBA
 10 who drafted the certificate and decided what information
 11 they needed to include in it. They never asked about
 12 tests on cassette—fixes, and the CSTB failed to disclose
 13 to the BBA the adverse test result 5B in late 2004 on
 14 cassette which yielded a class E.
 15 When you come to consider Arconic's role, as it has
 16 presented it to you in its submissions, you will I think
 17 struggle to find a single admission of fault on its own
 18 part. Arconic's case is that it was wholly blameless.
 19 Next, Celotex. It seeks to allocate blame like
 20 this: on the night of the fire, the ACM panels were to
 21 blame. The external fire spread at Grenfell was caused
 22 by those panels. The contribution of RS5000 was, it
 23 says, minimal. ACM PE is incapable ever of complying
 24 with the functional requirement B4 on external fire
 25 spread. Celotex wasn't involved in choosing it. It was

42

1 Arconic who concealed the relevant fire safety tests
 2 relating to cassettes, and continued to sell them long
 3 after they should have been withdrawn, and specifically
 4 did so for Grenfell Tower through Deborah French, its UK
 5 sales representative, in April 2014, knowing that
 6 cassette was only ever class E, and rivet from 2013
 7 a class C. The same fire spread outcome, it says, would
 8 have obtained had mineral wool been used, see Bisby.
 9 On toxicity, most of the toxic smoke, says Celotex,
 10 came from the ACM.
 11 The building failed to resist internal fire and
 12 smoke spread, because of the failures by RBKC and the
 13 TMO to comply with their obligations under the
 14 Fire Safety Order 2004, not least in respect of
 15 door-closers; the refurbished AOV, in turn implicating
 16 RBKC, Exova and PSB; and the lifts not being upgraded to
 17 firefighting lifts.
 18 In general, Celotex blames the construction
 19 professionals — each of them, Studio E, Rydon and
 20 Harley Façades — in failing to perform their design and
 21 compliance obligations, and not understanding the
 22 regulatory regime, the routes to compliance, or how the
 23 system at Grenfell Tower could ever properly comply.
 24 None of them investigated the fire performance
 25 characteristics either of FR5000 or RS5000 which

43

1 replaced it. Indeed, Studio E, through Mr Crawford,
 2 simply took it on trust from Harley that RS5000 was
 3 compliant. None of them investigated the fire
 4 performance characteristics of Reynobond ACM PE. None
 5 of them had requisite experience for their roles in
 6 cladding and residential high-rise.
 7 Rydon itself, together with its subcontractor, SDPL,
 8 made the decision to use TB4000 combustible insulation
 9 around the inside of the windows, contrary to Approved
 10 Document B, contrary to the NBS specification and with
 11 no expertise at all. That contributed to the spread of
 12 the fire from the kitchen of flat 16 into the cladding
 13 system.
 14 For its part, it blames Max Fordham for failing to
 15 point out the fire characteristics and failing to
 16 investigate the fire characteristics of the FR5000 when
 17 recommending it for use on Grenfell Tower because of its
 18 thermal values.
 19 Exova, it says, failed to carry out a comprehensive
 20 fire safety strategy and gave wrong advice that the
 21 proposed refurbishment works would have no adverse
 22 effect on the building in relation to external fire
 23 spread, and gave further wrong advice in both
 24 September 2014 and March 2015.
 25 RBKC's building control. Well, they failed to carry

44

out any proper investigation or inspection and should never have issued the completion certificate. In particular, Mr Hoban didn't investigate what route to compliance was being followed, and, if linear, how the components met the guidance.

DCLG, it failed to cure the problems inherent in the ambiguities in class 0 and its unsuitability, and what "filler" meant in 12.7.

Celotex does accept blame for misdescribing the RS5000 test rig on 2 May 2014 in its sales literature, but it also says that its marketing literature for RS5000 was clear that any deviation from the system as tested had to be considered by the building designer and it wasn't, and although it accepts that the description of the test was misleading, nobody was misled because they didn't read it properly. Had they done so, they would see that the build-up described was very different in many respects from the system proposed for Grenfell Tower, such that the misdescription — the omission of the layer of magnesium oxide in the rig — was not causative. Put another way, the misleading omission of the magnesium oxide layer can't have made a difference because the RS5000 test rig and the Grenfell Tower build-up were so obviously different to anyone who cared to look.

45

Celotex doesn't, I think, appear to acknowledge, at least in its overarching closing, any responsibility for rigging the May 2014 test, as it admits did happen, and inserting a layer of magnesium oxide onto it in strategic places to get it to pass in the first place, as Mr Roper and Mr Hayes told you when they gave evidence before you. You will have to consider the causative role, if any — if any — that the pass in that way at the time played which enabled RS5000 to come on to the above-18-metre market in the first place.

While we're on insulation, Kingspan. Now, it admits and it "deeply regrets" what it calls "shortcomings" in its testing and its certification of K15 for nine years. That, I don't think it's unfair to say, is where its acceptance of responsibility ends. It seeks to distribute culpability thus:

The ACM PE panels. It wasn't safe to use them with any kind of insulation, and those panels were solely responsible for the speed and spread of the fire, so whether the insulation was combustible or not would have made no difference to the fire spread and, as Mr Webb KC for Kingspan told you this week, the presence of ACM effectively eclipses everything else.

The government next gets the blame for allowing combustible insulation to be used in a system tested

46

under 8414, a system which Kingspan is keen to use even today. It gets the blame for not banning ACM PE when it knew how it behaved from the cc1924 2001 full system tests, and for overseeing a lax regulatory regime.

Curiously, Kingspan also makes adverse comment about the Inquiry team's approach to the evidence, for thinking, until the Bisby experiments very late on in Phase 2, that the combustible insulation played some role in the fire spread on the night, and the safety of systems incorporating K15 in general. There is a thinly veiled attack on our line of questioning of Kingspan's witnesses. Now, Kingspan can rest assured, I hope, that its submissions on these points will be considered with all seriousness, all the evidence will be considered in the round and duly reflected in your report, and any corrections will be made if and where they are justified and necessary.

It is only fair to point out, though, to you and to the public, lest you receive a one-sided picture, that there is much that Kingspan has chosen not to address or to explain in its closing. It admits what, in its written closing, it politely calls "shortcomings" in its testing and sales strategy, without going into or explaining how they came about or their effect on the insulation market.

47

So you might ask: well, what do they say about the sale of a product that had not actually been tested? The reliance for a decade on that test? What do they say about the sales literature claiming safety generically for use over 18 metres? I think what they say about that is that that had all been corrected by the time Kingspan got on to the building. What do they say about the failure to correct a BBA certificate which said that K15 was compliant with paragraph 12.7 of ADB? The use of an LABC certificate which said that K15 "can be considered a material of limited combustibility", extracted from a hapless Herefordshire building control officer "without even getting any real ale down him"? And the way it deflected the NHBC's questions, and those of others such as Wintech, for a long time — years, in fact, about how K15 could be used over 18 metres if following the guidance in ADB?

Kingspan's case is that that is all irrelevant because, in fact, K15 can be used above 18 metres safely, or at least meet the criteria in BR 135, as later tests appear to show. Moreover, only a small proportion of the insulation used on Grenfell Tower was K15.

Now, those matters are doubtless important, and you will have to examine and weigh them carefully,

48

1 particularly in light of the submissions about the role
2 of the K15 which ended up on the tower as having any
3 causative effect on the fire spread on the night. But
4 they're not the only points. The importance of
5 Kingspan's evidence is what it revealed about its
6 shortcomings, about its attitude to the testing regime,
7 its use of the BRE, its attitude to certifiers and its
8 customers, and its effect and influence on the wider
9 market from 2005, including on later arriving
10 manufacturers like Celotex trying to access the
11 over-18-metre market, which had been dominated by so
12 long by Kingspan, and in turn on a large section of the
13 building control profession via the NHBC. On those
14 matters, Kingspan — in its overarching closing, at
15 least — has chosen to stay silent, despite what it
16 knows that the BSRs and many other core participants say
17 about those matters.

18 Harley.

19 Let's look next at the design team responsible for
20 the Grenfell Tower refurbishment, starting with Harley,
21 the specialist cladding subcontractor.

22 Harley accepts what it calls shortcomings, failings
23 and omissions, and does not expect to be airbrushed out
24 of the narrative, as you were told. But it does not
25 appear to accept any particular blame. It seeks to

49

1 allocate blame like this:

2 Manufacturers — there they are, Kingspan, Celotex,
3 Arconic — for deliberately pushing unsafe materials
4 onto an unsuspecting market by what it says were
5 dishonest and unethical methods, including rigging tests
6 and suppressing the dissemination of test results.

7 The BRE comes in for its share of blame in failing
8 to identify the manifold errors in Kingspan's 2008 BBA
9 certificate for K15, and the same in 2009 in relation to
10 the LABC certificate.

11 The BBA and the LABC certificates were themselves
12 misleading, as was the NHBC's July 2016 guidance. They
13 must take some of the blame for promoting ACM — so long
14 as it could achieve class B — K15 and RS5000 above
15 18 metres, in fact all together.

16 So far as concerns the BBA certificate for the ACM,
17 Harley says that it's irrelevant. Even had Reynobond PE
18 55 in truth had a class 0 classification, and even had
19 Harley read it closely, none of that would have ensured
20 that Reynobond ACM PE 55 was safe. It is not clear how
21 that is consistent with its case that Arconic is to
22 blame for peddling unsafe panels, and there is no
23 mention of the fact that the panels, both in the rivet
24 and the cassette—fixes, appear to be covered by the
25 certificate, or at least not excluded. The reason for

50

1 that may be that nobody at Harley actually read the
2 certificate sufficiently carefully to be induced to act
3 on what it said about those fixes on one interpretation
4 of the certificate.

5 Central government gets its share of the blame for
6 a number of things: failing to or refusing to learn and
7 publicise the lessons from past fires; failing to make
8 public the results of the government's own 2001 cc1924
9 project tests on ACM PE, which resulted in a very
10 fierce, fast fire; the view of the BRE's own top fire
11 scientist, Dr Debbie Smith, that ACM could not be
12 an appropriate product for use in a high-rise
13 application; retaining class 0, despite its self-evident
14 unsuitability, because the ACM PE which so spectacularly
15 failed in the cc1924 tests in 2001 achieved class 0 as
16 a product, and, one might add, despite the 1999
17 parliamentary select committee recommending that it be
18 dropped; failing to maintain a safe comprehensive and
19 comprehensible system of fire safety regulation; and
20 confusion at the very highest levels of expertise —
21 Dr Smith and Brian Martin — about the
22 interchangeability of class 0 with limited
23 combustibility. If they did not know that they were not
24 interchangeable, then how could Harley have been
25 expected to know?

51

1 It was all about the materials, says Harley, and not
2 the design or installation: witness the catastrophic
3 failure of the post-Grenfell fire test set up by the
4 government using those materials and with
5 cavity barriers in perfect conformity with ADB.

6 Harley also points out that it was not a specialist
7 façade engineer or a cladding designer, but a cladding
8 subcontractor engaged to productionise someone else's
9 design and specification, and reliant entirely on
10 specialist architectural and other input from Studio E,
11 Rydon, RBKC, Exova and the clerk of works; in other
12 words, everybody else.

13 Now, there is a conundrum on the BBA certificate for
14 Reynobond PE 55 for you to resolve, and I've already
15 touched on it. On the one hand it might be said that
16 the document never caused any harm because nobody on the
17 design team read it, or read it properly, and therefore
18 the potentially, arguably misleading nature of the
19 document had no causative effect at all. On the other
20 hand it could be said — and Harley seems to say just
21 this — that there was no point them reading it as it
22 would simply have confirmed what they already thought,
23 namely that ACM with a PE core could be used above
24 18 metres, and so nobody was harmed by their failure to
25 read it. The certificate certainly did not tell them

52

1 that they could not use that product above 18 metres.
 2 It could also be argued that, by not reading it,
 3 Harley saved itself from being misled by what it did
 4 say, particularly in relation to the two fixing systems.
 5 So, even if the document was misleading, it made no odds
 6 because no one on the design team or at building control
 7 read it properly.
 8 Now, one way through that might be to say that ACM
 9 with a polyethylene core could on no view ever be used
 10 safely in accordance with the functional requirement B4
 11 in the Building Regulations, and that ought to have been
 12 obvious to everybody. That is a conclusion that you
 13 might, if you look hard enough, find supported by the
 14 factual and the expert evidence.
 15 One answer to the point about the colour of the
 16 panel, that smoke silver wasn't covered by the
 17 certificate, is, or might be, that had Harley been told
 18 that neither rivet nor cassette—fix was a class B —
 19 which was the position, it seems, by early 2014 — then
 20 it is unlikely that Harley would ever have needed to ask
 21 about the colour since the BBA certificate would have
 22 been a dead letter.
 23 Rydon.
 24 They're next up the design team chain. Their view
 25 is that they are wholly blameless, and they seek to

53

1 allocate blame like this:
 2 Government and the path to Grenfell. This is, as
 3 I think by now is becoming apparent, low—hanging fruit,
 4 and doubtless in common with everybody else who bought
 5 and used ACM PE and combustible insulation in the years
 6 before the Grenfell Tower fire, but it is useful to
 7 delineate the targets here.
 8 We have the government and the path to Grenfell
 9 first, and Rydon blames the failure of government
 10 oversight of the operation of the post—1984 regulatory
 11 regime, or to recognise signals from industry or fire
 12 experiences, paving the way for: unscrupulous and
 13 dishonest manufacturers to exploit customer confusion;
 14 to suborn weak and pliant certification bodies who had
 15 lost their objectivity into publishing misleading
 16 certificates; and to blame test houses for their
 17 possible connivance with clients to deceive the market
 18 and, in any event, the loss of their true compass north
 19 when it came to conflicts of interest.
 20 Harmonisation, and the resultant shambles — that's
 21 the word they use — over diagram 40 equating class 0
 22 with class B, or at least giving the appearance of doing
 23 so.
 24 Retaining class 0 after the 1999 select committee
 25 report into Garnock Court, or rather after

54

1 Garnock Court, again traceable to the harmonisation
 2 exercise that took place in the summer of 2000 and 2001,
 3 after the May 2000 RADAR report on reaction to
 4 fire spread.
 5 Covering up the cc1924 tests from 2001, or at least
 6 inexplicably not disclosing them.
 7 Filler. The Edge fire and the late coming amendment
 8 to 12.7 in the dying months or weeks of 2006 and the
 9 introduction of " filler " without consultation, even with
 10 BRAC, and without taking steps to ensure that it was
 11 understood across industry.
 12 Lakanal, and the unlearned lessons, including the
 13 lesson of downward fire spread.
 14 Post—2013 inquest failures to act.
 15 The inadequacy of class 0 as a metric for assessing
 16 fire performance in external wall build—ups.
 17 BR 135 comes in for a particular blame as a failure
 18 criterion only, which cannot show that a particular
 19 build—up tested and which doesn't fail the criteria will
 20 meet regulation B4.
 21 Mass market confusion, witness again the 2 July 2014
 22 CWCT meeting and the LABC registered detail for RS5000
 23 of August 2014.
 24 Then you have NHBC's July 2016 guidance note
 25 promulgated at that conference on 7 July — you'll

55

1 remember that — as telling readers, building control
 2 officers, approved inspectors, that class B ACM panels,
 3 if you could find them, and RS5000 or K15 were compliant
 4 not just in following the linear route, but with the
 5 Building Regulation itself.
 6 And Celotex and Kingspan. Rydon says they exploited
 7 the broken nature of the regime for their own ends to
 8 create a false market for insulation above 18 metres,
 9 and Celotex misold RS5000 to Harley for use on
 10 Grenfell Tower specifically and never disabused Harley
 11 of the notion that RS5000 was suitable for use above
 12 18 metres in any system.
 13 The BRE. They failed in their obligations, says
 14 Rydon, of impartiality due to its privatisation, and it
 15 became a willing facilitator of Celotex's and Kingspan's
 16 duplicity. There is a question about what Phil Clark
 17 knew about the presence of the magnesium oxide boards on
 18 Celotex's 2 May 2014 RS5000 test rig, and you are going
 19 to have to resolve that question on the evidence.
 20 Arconic. They actually knew that their product,
 21 whether in rivet or cassette—fix, was dangerous and
 22 should never have been used at height, says Rydon, and,
 23 says Rydon, Arconic knew that it was being used at
 24 Grenfell Tower because Deborah French had sold it to
 25 Harley using the BBA certificate for that very purpose,

56

1 despite being told on 3 February 2014 that all
 2 Reynobond 55 PE was class E.
 3 And the BBA, who are up there now, their
 4 certificates for both Reynobond 55 PE from January 2008
 5 and K15 from October 2008 were inaccurate and materially
 6 misleading.
 7 When it came to the Grenfell Tower refurbishment
 8 project itself, Exova also comes in for some blame.
 9 Paragraph 3.1.4 of the three issues of its outline fire
 10 safety strategy, repeated three times, given to
 11 tenderers in late 2013, which provisionally blessed the
 12 cladding system as safe. Its advice, says Rydon, was
 13 misleadingly and materially incomplete so far as
 14 concerned the cladding. Exova continued to be retained
 15 by the TMO and to give ad hoc advice from time to time.
 16 It says that Exova should have completed its work as
 17 promised before Rydon was appointed, and should have
 18 known that contractors and subcontractors would rely on
 19 its OFSS, the outline fire safety strategy. But, even
 20 had Exova done its work properly and considered
 21 Reynobond 55 PE and RS5000, there is doubt whether it
 22 would have considered their use at Grenfell Tower to be
 23 inappropriate anyway.
 24 Studio E, that comes in for blame, because Rydon, it
 25 says, fairly delegated design responsibility to it, and

57

1 it says it fairly had no doubts about its competence and
 2 had no reason to doubt it.
 3 Harley. Harley Façades also gets blame because
 4 Rydon, it says, expected its cladding subcontractor to
 5 have technically competent people for technical and
 6 design matters. Harley took full responsibility for
 7 ensuring compliance with the Building Regulations and
 8 the design work.
 9 But what about Rydon itself? It says it was
 10 a victim of government and other bodies, a victim of
 11 manufacturers; it knew nothing of Studio E's or Harley's
 12 lack of knowledge or understanding, it reasonably relied
 13 on them in a standard design and build setting; and it
 14 had no alert from RBKC's building control department,
 15 who at times was described by Mr Lawrence as part of the
 16 design team.
 17 Now, you have no expert, of course, to say that
 18 Rydon fell below the standards set in the contract with
 19 the TMO, and that is a point you will need to consider
 20 with some care when it comes to assessing what the
 21 objective standards are against which Rydon is to be
 22 judged other than its contractual obligations, but you
 23 do have the expert evidence of Mr Sakula and you do have
 24 the evidence of Mr Hyett which bears on that, as well as
 25 the opinions of Dr Lane.

58

1 But looking at the map here, Rydon isn't to blame
 2 for anything, by its own lights.
 3 Studio E is next.
 4 Now, Studio E has not provided any overarching
 5 observations and has not appeared this week to address
 6 you about these bigger themes. We have to work,
 7 therefore, with the position expressed already in its
 8 submissions. But as you heard at the end of Module 1,
 9 its position is basically defensive. There is an open
 10 question to what extent it has reflected on the quality
 11 of the services it rendered, and asked itself whether
 12 the level of quality of its service contributed in any
 13 material way to the deaths at Grenfell. You will
 14 carefully consider those submissions, long ago though
 15 they were, and weigh them against all the evidence and
 16 those of the expert opinions of Mr Hyett, should you
 17 choose to accept and rely on those opinions, and to that
 18 extent.
 19 Exova.
 20 Now, Exova, on its case, was blameless. You heard
 21 that this morning. Any omissions were not causative.
 22 It seeks to lay the blame as follows:
 23 Government and the regulatory regime. Class 0, ADB,
 24 et cetera. The deregulatory agenda. It seeks to blame
 25 the manufacturers who, says Exova, were engaged in

59

1 deliberate malpractice to exploit weaknesses in the
 2 regime, and specifically to control the dissemination of
 3 test data in respect of actively marketed products.
 4 Building control bodies, developers and lead
 5 contractors, the certification bodies, BBA and the LABC,
 6 and the whole structure of design and build, where
 7 participants can oversee projects without real expertise
 8 of their own and without identifying necessary
 9 specialist expertise to be contracted in, and without
 10 identifying who needs to be managed and what needs to be
 11 co-ordinated and, you might add, who had what
 12 responsibility.
 13 And, in that light, the way in which the
 14 Grenfell Tower refurbishment project was set up, with
 15 numerous disconnections, both before and after the award
 16 of the main contractor role to Rydon, and particularly
 17 the absence thereafter of a design responsibility matrix
 18 and who was responsible for what, such that everyone
 19 thought that the compliance of the façade with the
 20 functional requirements, so far as regards fire, was
 21 someone else's responsibility, rather mirroring the
 22 submissions.
 23 Exova blames two key decisions, you heard this this
 24 morning: first, to use the aluminium composite material
 25 with a polyethylene core as cladding; and, secondly, to

60

use it to form the crown. But it doesn't appear to draw any link between the presence of that material on the tower and anything done or not done by Exova. It essentially says those decisions had nothing to do with it. That may be right, it may not be right. You will have to examine the evidence with some care.

Next, the TMO.

Now, the TMO, it is fair to point out, as it does, exists for the purpose only of responding to any civil or criminal proceedings and for assisting this Inquiry, and it is inappropriate for those appointed post-fire, it says, to express any judgements critical of its conduct in respect of the refurbishment.

It makes a number of defensive points that, of course, again, you are going to have to consider carefully. For example, the fact that the Grenfell Tower fire could have happened to anybody in the sector, and the fire itself revealed hundreds of high-rise buildings across 25 local authorities with cladding which failed the post-fire tests done by the government. It says that the TMO was no better and no worse than other social housing bodies or private bodies acting as a client for a refurbishment involving cladding; that hindsight expressions of things that could have been done differently are not to be equated

61

with culpability; and that the multifaceted causality of disasters such as Grenfell Tower, where many errors accrete and intersect and align in particular circumstances.

The TMO has focused tightly on the scale of the ACM problem across the UK housing estate. From that it reasons that in installing a cladding system with combustible materials, it didn't act out of the norm, even without a benchmarking survey. It then goes on from that beginning to blame:

First, the ACM PE panels for the fire, the concealment of the true results of the testing of the Reynobond PE 55 and the BBA certificate.

It blames Arconic's deliberate targeting of countries which continue to operate with both a national and a European Standard.

It blames the BBA.

It blames class 0's basic unsuitability as a standard for external surfaces, the misunderstanding by the industry of what class 0 actually meant and its retention for political purposes by the government.

It blames the non-disclosure by the government of the disastrous cc1924 tests in 2001 on ACM with a PE core, notwithstanding that government well understood the implications.

62

It blames the government for failing properly to respond to the Lakanal coroner's Rule 43 recommendations.

It blames the government's knowledge, not limited to Brian Martin, that there were serious problems with Approved Document B, and a prime case existed for urgent review.

It blames the rigging of RS5000 tests by Celotex, and its misleading marketing, and similarly misleading marketing of K15 by Kingspan.

And it relied on the design team it had quite reasonably, it says, appointed as client to run the Grenfell Tower refurbishment project: Artelia, Studio E as architect and lead consultant and lead designer, Rydon as contractor — a rational appointment, it is said, given its track record and the terms on which it was appointed — to ensure that materials and construction were compliant with regulation.

Value engineering the price of cladding down, it says, wasn't only normal, but not causative because the ACM with a PE core had already been pushed by Harley pre-contract and included in the NBS specification anyway as an alternative to zinc, and even suggested by Leadbitter at a much earlier stage, before Leadbitter decided not to participate in the re-procurement

63

exercise in 2013.

It blames problems with the self-closing doors and fire doors as widespread across the whole social housing industry. There was an endemic problem, cured I think only this year by new regulations, which showed that the TMO clearly wasn't out of the norm. The point being made is that there was a problem, it has been cured by legislation, and the need to cure it by legislation shows that the TMO wasn't acting unreasonably. That, I think, is how the point runs.

So far as the AOV and the lifts are concerned, the TMO expected that they were properly maintained, and that the AOV system was never designed to handle that much smoke in one go.

Carl Stokes, he gets some blame — well, he gets praise, actually, for being up to the job according to the standards of the day, and the TMO had no reason to think otherwise.

The RRO, for its part, was unclear as to whether it extended to the external wall, a controversy now cleared up again in the recent new legislation.

Finally, PEEPs. The TMO was not acting out of the norm in not having them.

Now, that is the very basic message that the TMO would want you to take away from the evidence.

64

1 If the TMO has asked itself the question, "Did
2 anything we did or did not do have any causative role in
3 the fire or the deaths or any material bearing on what
4 happened in that building on that night?", it is not
5 apparent from the position that they have taken in their
6 overarching submissions. Now, that may be, of course,
7 because it had no causative role, directly or
8 indirectly. It may be that it simply isn't to blame at
9 all. Or it may be that, on a closer analysis of the way
10 that the refurbishment project was set up and staffed,
11 or the way that it sought to discharge its
12 responsibilities for the building under the FSO, or for
13 the way that it handled its residents in respect of the
14 refurbishment, shortcomings are revealed that did bear
15 on the fire or on the deaths. I'm afraid that you will
16 have to work that out yourselves from the evidence, but
17 unaided by admission or self-examination by the TMO, or
18 the husk of it that remains.

19 Let's look at RBKC.

20 Now, RBKC has unqualifiedly admitted important
21 failures in its building control service. It did that
22 at a reasonably early stage. It says — and it repeated
23 the point this week through Mr Maxwell—Scott KC — that
24 it should never have been the case that all that stood
25 between the installation of Reynobond PE 55 and RS5000

65

1 on Grenfell Tower was the building control service of
2 a local authority. RBKC also said yesterday, by way of
3 a list, that it had failed without qualification. The
4 list was both welcome and pithy, and you will take note
5 of that. Mr Maxwell—Scott made it plain that RBKC's
6 submissions about how blame might lie elsewhere do not
7 detract from its acceptance of its failings.

8 RBKC has presented a helpful roadmap of key events
9 which each act as a prism to see its case about who was
10 really responsible. Filtered through that prism, we see
11 that RBKC allocates fault in very general terms to:

12 Arconic.
13 Celotex.

14 The long history of the evolution of the regulatory
15 environment from Knowsley in 1991 to Grenfell in
16 June 2017, and, among other things, class O's
17 unsuitability; the lack of focus and funding for
18 research on fire safety of materials designed to
19 increase energy efficiency, in line with government
20 policy; Connolly in 1994; RADAR 2000 and the so-called
21 equivalence with Euroclass B enshrined in the 2002
22 amendments to ADB; and the cc1924 tests in 2001 and the
23 government's failure to disseminate the results until
24 after the Grenfell Tower fire, when it was the BBC who
25 broke the story.

66

1 Weaknesses in the testing and certification regime,
2 particularly the LABC and the BBA.

3 Exova's response to Studio E's request on
4 17 September 2014 about RS5000 and its failure to advise
5 that that material was not material of limited
6 combustibility and, therefore, could not be used under
7 12.7 of ADB, and its failure thereafter — particularly
8 after that exchange — to update the outline fire safety
9 strategy and provide the promised future issue dealing
10 with external fire spread, and to confirm the
11 provisional positive view finally.

12 It blames Rydon for failure to appoint
13 a fire consultant, despite a number of indications that
14 it would do so from 1 April 2014, and despite not having
15 an in-house resource, explained in part by treating the
16 building control body at RBKC as that resource.

17 And the design team, Studio E and Harley Façades.

18 RBKC has also repeated its admissions in respect of
19 its oversight of the TMO in respect of the safety
20 measures in place at Grenfell Tower and elsewhere in the
21 borough. In that respect, it blames the government for
22 failure to regulate the competence standards of FRAs
23 after Lakanal, despite siren calls for it to do so. It
24 blames the TMO for the way in which Carl Stokes' role
25 expanded without a proper procurement process, having no

67

1 concerns about his work, despite the LFB expressing
2 their own concerns at a level of volume, and not being
3 sighted on his work. It blames the flat front doors,
4 which were not properly fire resistant FD30S doors
5 compliant with the Building Regulations, and that was
6 a generic problem on a national scale. It accepts
7 qualified blame in respect of the SCDs, the self-closing
8 devices on doors, but seeks to pass that on to the TMO
9 for giving it incomplete information and, as a result,
10 elected for a five-year installation and not
11 a three-year programme, and no inspection programme, and
12 the scale of the defects not known to RBKC. And it
13 blames Mr Stokes for failing to advise that there should
14 be a planned maintenance programme and six-monthly
15 inspections as per the LGA guide, and the fact that he
16 himself only inspected a small sample.

17 As you can see, we now come to central government,
18 the DCLG or the MHCLG as it had become when the Inquiry
19 started, and now the DLUHC. It has made broad
20 admissions of fault in respect of the regulatory regime
21 for the most part, although less so in respect of the
22 Fire Safety Order and the related guidance there.

23 However, in respect of how the building came to be as it
24 was on the night of 14 June 2017, it has made pithy but
25 pointed criticism of each member of the design team, so:

68

the TMO, Artelia, Studio E, Rydon, Harley Façades, Exova, John Rowan and RBKC's building control. The department says that they all displayed in different ways a fundamental failure to give any real thought to the most basic aim of the Building Regulations, namely the protection of people's safety, health and welfare in and around buildings, when it should have been front and centre of everything they were doing. This failure led them to minimise the importance of compliance with the Building Regulations, and this led in turn to the tragic events of 14 June 2017.

But what the department does not appear to have reflected on is how those failings, apparently so commonly shared, are linked in blameworthiness terms or causatively to the failings that it has identified in its own development and oversight of the regulatory regime, which it accepts were broken. Why were all these individuals and organisations so lacking in competence in that single arena, fire safety under the Building Regulations? Why this ship of fools? It was clearly not a coincidence.

The department says that no competent design or construction professional would knowingly have utilised combustible cladding and insulation with the properties of those used at Grenfell in the refurbishment of that

69

building, and it relies in turn on the expert evidence given by Professor Bisby. But beware any shortcut to causation here. You will need to weigh that approach to causation with the role that ADB, and particularly class 0, actively did play in the minds of those involved, and the uses and abuses of BS 8414 and BR 135 developed out of Fire Note 9 in the late 1990s as an alternative way of meeting compliance.

The department also blames the trio Arconic, Celotex and Kingspan, for what it calls cynical and dishonest practices in the testing and marketing of their products. It blames the BRE for its venality — my word — presiding over weak practices, and the BBA and LABC for incompetent and misleading certification.

But, again, what are you to make of the department's role in facilitating or creating the environment for the kinds of practices and attitudes that you might conclude that the evidence reveals? If a manufacturer can think — and here you may recall Kingspan's Arron Chalmers' colourful internal texts — that it is within the testing regime to test only the foil facer of an insulation panel for class 0, and then have Exova, through Mr Frans Paap, bless that approach — albeit with caveats, it is fair to point out — as arguably within the letter of the regime, you might look again at

70

the testing and classification regime and ask yourself to what extent it facilitated that conduct.

Now, it's for you to assess whether the several and separate instances of manufacturer behaviour in testing and selling their products was, again, just a coincidence, or whether it had a common root in the UK's regime as a seedbed for practices such as Kingspan now regrets as what it prefers to call "shortcomings".

The BBA.

In paragraph 3 of its written closing submissions, the BBA says this:

"To the extent that the BBA made errors and mistakes it offers an unreserved apology."

Is that an admission of errors and mistakes, or is that an offer of an apology for any error that you might decide that it made, without actually admitting any? It's an "I'm sorry if", not an "I'm sorry for".

Now, the BBA fairly points out that it is small, private, has no role in standard-setting, and its role is entirely contractual. It has no powers of compulsion beyond the contract, no means of stopping unscrupulous clients misleading them. It isn't a testing house. It was certified by UKAS against ISO standard 17056 from 2012. Certification isn't mandatory. The process isn't regulated by the Building Act or the regulations or the

71

approved documents. Certificates are designed to be read by trained specialists and qualified designers, whoever they may be, and it doesn't tell you about the safety of a building or a design, only a product.

But, the BBA was also a vital gateway to the public market, and its certificates were a valuable kind of currency in the hands of manufacturers.

The BBA admits that re-issues were not always followed up, a weakness revealed by the evidence here. It admits that the statement on the front page of the 2008 BBA certificate for Reynobond PE 55 was allegedly capable of misinterpretation because it wasn't limited to the FR version, the fire resistant version, which had achieved an actual class 0. It argues about the words "may be regarded" as opposed to "can" or "does", leaving it up to the reader to decide whether it can or can't, or does or doesn't. It accepts that the wording could have been tighter, in that only some scenarios were covered — not sure which, but some. It admits that its statement in the April 2010 certificate for Kingspan K15, which said that it may be used in accordance with, among other provisions, Approved Document B 12.7, was correct; correct because it could be used above 18 metres in a cavity created by two skins of masonry, and any suitably qualified reader would have

72

1 understood that.

2 You are going to have to decide whether that
3 argument — and it is an argument, even though it was
4 advanced by Mr Albon and again yesterday by Mr Sawtell
5 for the BBA — is any good. I would just point out one
6 thing, which is obvious, I would say: that the reference
7 to masonry wall in section 12.7 is by way of
8 an exclusion from the requirements of material of
9 limited combustibility in 12.7. It's a carve-out. So
10 how the reasonable reader of the words in the
11 certificate "can be used in accordance with 12.7" would
12 think that that referred only to the part of 12.7 which
13 didn't apply is a question you will no doubt ponder.

14 Although it is true that the BBA certificate did not
15 say in terms that K15 was material of limited
16 combustibility, you will have to ask yourself how the
17 reasonable reader might otherwise read the reference to
18 12.7, unless they already knew that phenolic insulation
19 was not material of limited combustibility and not
20 within the requirement, in which case the statement in
21 the certificate was useless and pointless.

22 You might also consider whether the masonry wall
23 argument sits at all with the contemporaneous evidence
24 of the discussions about it between Brian Martin and
25 John Albon in the July of 2014, where the latter

73

1 described the reference to 12.7 as a human error, a rare
2 and unfortunate oversight, and not a deliberate but
3 rather ham-fisted attempt to refer to the masonry wall
4 exclusion.

5 The point remains that, as the BBA also said, nobody
6 should have been misled into thinking that a phenolic
7 foam board could be material of limited combustibility.
8 But you might also think that that was, at least on the
9 evidence you have heard, optimistic, given the levels of
10 expertise and competence amongst some designers and, it
11 appears, certifying bodies themselves.

12 The BBA also accepts in the BBA certificate for K15
13 of 27 October 2008 that the statements "The board will
14 not contribute to the development stage of a fire" was,
15 it says, capable of potential misinterpretation and was
16 removed in 2015, and the statement that the product met
17 the BR 135 criteria was also "potentially misleading",
18 in that BR 135 was a set of system criteria, not
19 a product test.

20 The BBA blames Studio E. It blames Studio E for
21 doing a number of things: first, not enquiring about the
22 colour difference between the panel tested —
23 grey/green — and the panel proposed for Grenfell —
24 smoke silver — and in not insisting on a fire test
25 first, citing Hyett, and therefore using a panel not

74

1 covered by the certificate. But again, as I say, since
2 no panel of any colour, at least in cassette form, was
3 ever actually class B and thus equivalent to class 0,
4 you will have to work out how that helps. All it means
5 is that there was no classified panel for the
6 BBA certificate to cover, and that had Studio E opted
7 for grey/green, there's no evidence that the outcome
8 would not have been exactly the same.

9 Not being alert to the need for cavity barriers, not
10 noting section 6.5 in the certificate about reaction to
11 fire for the performance of the wall as a whole — but
12 note the word "reaction" in that paragraph as opposed to
13 "resistance", two words which are terms of art under the
14 regulatory regime — and for falling for the reference
15 in 12.7 in the K15 certificate, and not knowing what the
16 whole world knows: that a phenolic foam board is not
17 material of limited combustibility.

18 But you do also need to exercise a little bit of
19 care because precisely the extent to which and when
20 Studio E became aware of the use of K15 on the tower at
21 all is a matter of careful investigation.

22 It blames Harley for not paying attention to
23 clause 6.5 of the BBA certificate about reaction to fire
24 of the whole wall, and also for thinking that the
25 reference in the BBA K15 certificate to class 0 was

75

1 a gateway to above 18 metres for insulation, thus
2 muddling class 0 and material of limited combustibility,
3 two different concepts.

4 It blames Arconic for not disclosing the test
5 results for cassette test 5B, and for breaching its
6 contract with the BBA in not notifying it of changes in
7 performance, particularly at review in 2015 and renewal
8 in 2016, when Arconic knew that neither rivet nor
9 cassettes were class B, and for representing to Harley
10 and CEP that Reynobond 55 PE in cassette form was
11 covered by the certificate for use on Grenfell Tower at
12 a time when it knew that it only had achieved a class E.

13 And it blames diagram 40, which it singles out for
14 special treatment within the regime, for the equivalency
15 inherent in the "may be regarded".

16 The BRE.

17 Now, so far as the BRE is concerned, its basic
18 position is two-fold. It says, first, that the cladding
19 system installed on Grenfell Tower was not tested under
20 BS 8414 to BR 135. Had it been so tested, it would not
21 have met those performance criteria. It also says,
22 second, that the regulatory regime applicable to
23 external walls above 18 metres, including cladding
24 systems on high-rise buildings, was developed by
25 an iterative and consensus-based process, with the

76

department having ultimate responsibility for it. Now, those are observations which are wholly uncontentious and could have been made on Day 1 of this Inquiry, but, with great respect to the BRE, they don't really advance matters.

The essence of the BRE's position is contained in its Module 6 written and oral submissions, which you will need to digest, and of which you must, and I'm sure will, take careful account. I don't propose to say anything more about that today, just as I did not at the end of Module 6.

Now, at this point it might be useful to show you what all of these different little maps of blame look like when merged. It looks like that. (Indicated). That is the web of pointer and counterpointer, who blames whom and, I've explained, for what.

You will note that on that map there are a number of core participants not covered. That is because I'm not going to cover NHBC, Siderise, PSB, Max Fordham, JS Wright or the other core participants who have made closing submissions. That does not diminish the importance of their roles, but I'm not sure that public understanding of causation and culpability will be improved by close analysis of their positions about culpability by me here and a further obscuration of what

77

is already a complex picture.

Nor am I proposing to cover the LFB. The LFB have not generally sought to shuffle off responsibility onto others, other than perhaps central government, and particularly in respect of the commissioners' and senior fire safety officers' warnings to central government even before Lakanal, and certainly afterwards, about the dangers of tall building fire and smoke spread, its influence on evacuation and stay put, and on the ambit of the Fire Safety Order. All of that is the subject of detailed evidence from Modules 5 and Module 6 part 1, which defies simple and neutral presentation.

Before I close, as I am about to, I would like to register publicly my thanks to the Inquiry team. As we have progressed through the modules, our team has decreased in size, and to name everybody now would take some considerable time. However, I would like to thank Caroline Featherston, the Solicitor to the Inquiry, and her current team of Cathy Kennedy, Shafi Nasser, Ross Howarth, Julia Dickins, Holly Waldron, Ros Try-Hane, Hollie Vaughn and Thomas Wood for all their good humour, support and clarity of purpose.

We have all had superb assistance from excellent paralegals, whose work in many cases far exceeded the norm in expert judgement and knowledge of the documents.

78

I personally owe a particular debt of gratitude to Kate Grange King's Counsel and Andrew Kinnier King's Counsel, who have led so much of the work in both phases and have lightened so much my burden.

I thank too the teams of our remarkable junior counsel involved in the preparation of each of the modules for this Phase 2.

I thank particularly Rose Grogan, Helena Drage, Emma Hynes, Rachel Sullivan, Rachel Troup, George Eyre, Dan Laking, Camilla Ter Haar, Shanthi Sivakumaran, Bilal Rawat, Kate Fortescue, Sam Bonner, Samantha Jones, Alex Ustych, David Messling, Tom Cockroft, Hannah Curtain, Scarlett Milligan, Tim Salisbury, Adam Gadd, Sam Burrett, Daniel O'Donoghue, Sarah Read, Dermot Keating, Priya Malhotra, Zinat Islam, Vida Simpeh, Naima Asif, Lucy Plumpton, and many I have not named here. Without their unstinting commitment to the work of this Inquiry and to each other as a team, and without their meticulous preparation, their discipline, their enthusiasm and their persistence, our task would have been impossible and your investigation far less effective.

I must also thank all the members of our excellent secretariat, headed for so long by Mark Fisher, for their work behind the scenes in allowing us to get on

79

with our work without distraction or interruption, particularly through the turbulence of COVID.

I thank the witness care team, Laura Brooks and Mel Pepper, our team of cheerful ushers, and our security team, who have had daily contact for so many months with the bereaved and the survivors and the families and the witnesses alike, and who treated all those individuals with compassion and respect. They are as much a part of our work as the evidence—gathering and assimilation.

No thanks would be complete without a special tribute to our transcribers, particularly Kayla and the indefatigable Jo, whose patient accuracy and keen ear through hundreds of days of evidence have been vital assets, and to the Opus team for their continual assistance and support.

Finally, I should also record publicly the Inquiry's sadness at the sudden loss in August this year of our only recently installed new Secretary to the Inquiry, Nicole Kett, who in her short time with us gave us so much wisdom, insight and support. It is now Matthew Lewsey who takes up the reins as secretary, and will carry the Inquiry from here to its conclusion.

Members of the panel, Mr Chairman, I first stood as Inquiry Counsel and addressed you, Mr Chairman, more

80

1 than four years ago, in May 2018. Today, exactly 400
 2 Inquiry days on, by my calculation, and certainly
 3 312 days on in this phase, it's likely to be the last
 4 time I do so.
 5 As a final personal reflection, I thank you, the
 6 panel, for your patience, your attention and your
 7 constancy in listening and understanding. It is now for
 8 you to report. The task before you is immense, but to
 9 the bereaved and the families and the survivors, it
 10 should bring relief; to the public, the clarity of
 11 narrative; and to policymakers, a clear, unavoidable and
 12 incontestable direction.
 13 Thank you very much.
 14 Closing remarks by THE CHAIRMAN
 15 SIR MARTIN MOORE-BICK: Thank you very much, Mr Millett.
 16 Well, now, having heard from all those core
 17 participants who wish to make oral overarching closing
 18 statements, and of course having heard from Counsel to
 19 the Inquiry, we have completed the Inquiry's hearings.
 20 When we reached the end of the Module 8 hearings in
 21 July, I attempted to give a brief description of the
 22 next stage of the Inquiry's work. I also expressed then
 23 the panel's thanks to all those who have done so much to
 24 enable our work and our hearings to be conducted in
 25 a dignified and effective way. I would on this occasion

81

1 wish to associate all the members of the panel with the
 2 thanks expressed today by Mr Millett, but also to thank
 3 him personally as leader of a large team of counsel
 4 whose names you have heard read out, without whom we
 5 simply could not have begun to embark on this enormous
 6 task.
 7 I don't intend to repeat what I said on the previous
 8 occasion, but I am pleased to confirm that work on our
 9 final report has already begun. Inevitably, there is
 10 still a long way to go, but, as I said in July, we are
 11 very well aware that we need to produce our report as
 12 soon as we can. We are all, therefore, fully committed
 13 to pressing ahead as quickly as possible, and we shall
 14 ensure that we don't keep you waiting any longer than is
 15 absolutely necessary.
 16 For now, that closes our proceedings, and we shall
 17 be in contact again in due course.
 18 Thank you all very much, and thank you particularly
 19 those of you who have been here to take part in, I would
 20 say, our proceedings. There are many familiar faces
 21 sitting in the seats in front of me. It's been a great
 22 pleasure to see so many of you on many, many occasions,
 23 some on almost every occasion on which we've sat, and we
 24 very much welcome the fact that you have taken such
 25 a close interest in our work and, as I say, taken part

82

1 in it by your very presence.
 2 Thank you all very much.
 3 (12.20 pm)
 4 (The hearing concluded)

83

1
 2 INDEX
 3 Closing submissions on behalf of Exova1
 4 by MR BRANNIGAN
 5 Closing submissions on behalf of the23
 6 Department for Levelling Up, Housing and
 7 Communities by MR BEER
 8 Closing statement by COUNSEL TO THE27
 9 INQUIRY
 10 Closing remarks by THE CHAIRMAN81

84

85

Opus 2
Official Court Reporters

transcripts@opus2.com
020 4515 2252

colloquial (1) 14:20 colour (5) 41:8 53:15,21 74:22 75:2 colourful (1) 70:20 combinations (1) 36:16 combined (1) 9:9 combustibility (12) 16:23 39:23 40:6 48:11 51:23 67:6 73:9,16,19 74:7 75:17 76:2 combustible (13) 38:18,20,20,24 39:14,23 44:8 46:20,25 47:8 54:5 62:8 69:24 combustion (1) 39:2 come (12) 1:14 15:24 16:17 20:10,17 20:20,21,24 30:20 42:15 46:9 68:17 comes (6) 32:25 50:7 55:17 57:8,24 58:20 comfort (2) 22:3 26:5 coming (2) 40:18 55:7 commend (1) 2:22 comment (3) 13:8 19:9 47:5 commercial (1) 29:20 commissioners (1) 78:5 commitment (5) 25:1,18,23 26:3 79:17 committed (3) 2:1 25:14 82:12 committee (2) 51:17 54:24 common (6) 18:17 29:24 33:9 40:3 54:4 71:6 commonly (1) 69:14 commonplace (1) 5:23 communications (1) 14:6 communities (4) 23:15,18,21 84:5 comparable (1) 39:5 compared (1) 6:16 compass (1) 54:18 compassion (1) 80:8 compensate (1) 26:1 competence (6) 29:7 30:1 58:1 67:22 69:19 74:10 competent (4) 16:8 19:11 58:5 69:22 competing (1) 36:23 complains (1) 41:7 complete (1) 80:11 completed (2) 57:16 81:19 completion (1) 45:2 complex (3) 28:20 29:15 78:1 compliance (10) 24:16 42:1,3 43:21,22 45:4 58:7 60:19 69:9 70:8 compliant (6) 39:12 44:3 48:9 56:3 63:18 68:5 comply (2) 43:13,23 complying (1) 42:23 component (1) 6:9 components (2) 32:18 45:5 composite (2) 40:25 60:24 comprehensible (1) 51:19 comprehensive (3) 25:11 44:19 51:18 compulsion (1) 71:20 concealed (3) 5:19 32:16 43:1 concealment (2) 5:23 62:12 conceded (1) 15:19 concentrating (1) 17:10 concepts (1) 76:3 conceptualism (1) 30:9 concern (2) 11:1 25:13 concerned (8) 34:16 38:16 40:2 41:12 42:9 57:14 64:11 76:17 concerns (3) 50:16 68:1,2 concert (1) 4:2 conclude (3) 28:16,23 70:17 concluded (1) 83:4 concludes (1) 5:5 concluding (1) 35:6 conclusion (5) 17:4 23:22	28:10 53:12 80:23 conclusions (3) 9:11 29:20 35:10 concomitant (1) 30:13 concurrent (2) 35:20 36:7 conduct (5) 3:4,22 20:11 61:13 71:2 conducted (2) 4:22 81:24 conducting (1) 41:1 conference (1) 55:25 confidence (2) 3:7 28:17 confirm (2) 67:10 82:8 confirmed (1) 52:22 conflicts (2) 30:3 54:19 conformity (1) 52:5 confronted (1) 34:4 confusion (3) 51:20 54:13 55:21 connection (1) 40:7 connivance (1) 54:17 connolly (1) 66:20 conscious (1) 19:23 consensusbased (1) 76:25 consequences (1) 28:12 consider (10) 4:5 16:25 30:20 40:13 42:15 46:7 58:19 59:14 61:15 73:22 considerable (1) 78:17 considered (6) 45:13 47:13,14 48:11 57:20,22 considering (1) 8:19 consistent (1) 50:21 constancy (1) 81:7 construct (1) 36:12 construction (9) 3:8 11:22 28:2,24 29:12 41:25 43:18 63:18 69:23 construed (1) 20:4 consultancy (2) 8:7,10 consultant (5) 7:20,21 8:8 63:14 67:13 consultation (1) 55:9 consulted (1) 15:23 contact (2) 80:5 82:17 contained (3) 5:7 40:1 77:6 contemplating (1) 6:21 contemporaneous (3) 14:6 34:4 73:23 contents (1) 39:6 contested (1) 29:23 context (1) 27:22 continual (1) 80:15 continue (1) 62:15 continued (4) 21:7,12 43:2 57:14 continuous (1) 38:24 contract (6) 8:14 12:4 35:2 58:18 71:21 76:6 contracted (1) 60:9 contractor (2) 60:16 63:15 contractors (3) 13:6 57:18 60:5 contracts (1) 35:3 contractual (6) 8:15,17 9:23 35:7 58:22 71:20 contrary (5) 6:25 14:3 28:12 44:9,10 contribute (1) 74:14 contributed (4) 28:11 34:9 44:11 59:12 contribution (2) 39:6 42:22 control (17) 10:16 12:3,14 27:11 29:1 44:25 48:12 49:13 53:6 56:1 58:14 60:2,4 65:21 66:1 67:16 69:2 controversy (1) 64:20 conundrum (1) 52:13 conversation (2) 14:9,12 coordinated (1) 60:11 core (24) 1:5,22 6:15 21:5 31:4,14,20,24 32:7 33:13,23 34:8 37:21 40:9 41:23 49:16 52:23 53:9 60:25 62:24 63:21 77:18,20 81:16	corner (1) 5:7 corners (2) 7:13 9:6 coroners (1) 63:2 correct (10) 8:20 10:20,20 16:17 18:24 21:10 31:6 48:8 72:23,23 corrected (1) 48:6 corrections (1) 47:16 correspondence (1) 20:22 cost (9) 6:13 7:7 8:23 11:9,22,23,24,25 12:2 costs (3) 6:19 7:24 9:7 costsavings (1) 12:6 couldnt (1) 40:24 counsel (19) 1:7,9,11 18:8 23:14 26:10,11,24,24 27:8 31:17,18 79:2,3,6 80:25 81:18 82:3 84:6 counterfactual (1) 36:12 counterpointer (1) 77:15 countries (1) 62:15 couple (1) 3:10 course (23) 1:25 2:13 3:7,12,12,15 4:21 6:3 8:14 9:11 14:11 15:10,13 26:13 29:21,22,23 40:15 58:17 61:15 65:6 81:18 82:17 courts (1) 34:20 cover (5) 9:7 37:2 75:6 77:19 78:2 covered (7) 41:13 50:24 53:16 72:19 75:1 76:11 77:18 covering (1) 55:5 covid (1) 80:2 crawford (2) 14:7 44:1 create (1) 56:8 created (3) 6:17 29:19 72:24 creating (1) 70:16 criminal (3) 34:18 35:17 61:10 criteria (5) 48:20 55:19 74:17,18 76:21 criterion (1) 55:18 critical (4) 4:13 5:18 14:23 61:12 criticised (2) 20:8,20 criticises (1) 16:13 criticism (10) 16:19 17:9,10,22 18:24 20:25 21:2 22:20 32:9 68:25 criticisms (7) 14:24,25 15:4,5 17:1,3 20:1 crown (4) 4:16 5:2 11:10 61:1 crucial (1) 30:20 cstb (1) 42:12 culpability (7) 3:6 31:2 37:14 46:16 62:1 77:23,25 cultural (2) 34:15 36:23 culture (3) 36:3,4 37:1 cure (2) 45:6 64:8 cured (2) 64:4,7 curiously (1) 47:5 currency (1) 72:7 current (1) 78:19 curtain (1) 79:13 customary (1) 35:5 customer (1) 54:13 customers (1) 49:8 <hr/> D <hr/> d (3) 9:7 12:24 17:25 daily (1) 80:5 damage (1) 41:15 dame (1) 9:2 dan (1) 79:10 dangerous (1) 56:21 dangerously (1) 29:18 dangers (1) 78:8 daniel (1) 79:14 data (1) 60:3	datasheet (6) 17:20,23 18:3,16,18,21 date (2) 17:17 29:18 david (1) 79:12 day (5) 17:18 32:3 35:5 64:17 77:3 day17461720 (1) 18:7 day174920 (1) 15:12 day626364 (1) 20:24 days (6) 31:3 32:5 34:7 80:14 81:2,3 dclg (2) 45:6 68:18 dead (1) 53:22 deal (5) 8:12 16:22 19:25 20:18 22:3 dealing (6) 2:18 12:8 15:15 19:2,11 67:9 dealt (2) 2:20 20:2 deaths (7) 28:17 30:18 32:12 34:9 59:13 65:3,15 debbie (1) 51:11 deborah (2) 43:4 56:24 debt (1) 79:1 decade (1) 48:3 deceive (1) 54:17 decide (3) 71:16 72:16 73:2 decided (5) 1:24 11:9 40:15 42:10 63:25 deciding (1) 11:10 decision (11) 4:13,15 7:18 8:2 9:20 10:15 11:21 13:13 21:9 35:21 44:8 decisionmakers (1) 9:6 decisionmaking (3) 11:14,16 17:5 decisions (21) 4:3,4,6,7,11 5:6,8 6:2,12 7:3,20 8:25 10:2,24 11:5 13:24 22:25 23:1 36:15 60:23 61:4 decreased (1) 78:16 deeply (1) 46:12 defects (1) 68:12 defensive (2) 59:9 61:14 defensiveness (1) 37:2 defines (1) 78:12 definition (1) 22:16 deflected (1) 48:14 deflection (1) 32:8 delamination (1) 39:1 delegated (1) 57:25 deliberate (4) 8:2 60:1 62:14 74:2 deliberately (1) 50:3 delineate (1) 54:7 deliver (1) 41:24 department (26) 23:14,17,21,24,24,25 24:4,7,14,17,23,25 25:3,10,14,15,17,19 26:3 58:14 69:3,12,22 70:9 77:1 84:5 departments (3) 24:21 25:23 70:15 deregulatory (2) 30:10 59:24 dermot (1) 79:15 describe (1) 2:7 described (4) 11:3 45:17 58:15 74:1 describing (1) 32:17 description (2) 45:14 81:21 design (30) 8:4 10:21 11:17 13:21,23 19:2,4 21:14 32:19 38:18 41:2 43:20 49:19 52:2,9,17 53:6,24 57:25 58:6,8,13,16 60:6,17 63:11 67:17 68:25 69:22 72:4 designed (3) 64:13 66:18 72:1 designer (3) 45:13 52:7 63:14 designers (2) 72:2 74:10 desk (1) 1:15 despite (13) 5:13 17:4 21:6 29:6 40:16 49:15 51:13,16 57:1 67:13,14,23 68:1	detail (3) 3:10 20:3 55:22 detailed (3) 11:17 22:24 78:11 determine (1) 34:19 determining (1) 13:24 detract (1) 66:7 developed (2) 70:7 76:24 developers (1) 60:4 development (4) 5:17 6:4 69:16 74:14 deviation (1) 45:12 devices (1) 68:8 devise (1) 36:7 diagram (2) 54:21 76:13 dickins (1) 78:20 didnt (6) 13:17 41:15 45:3,16 62:8 73:13 died (2) 2:16 37:13 differed (1) 8:17 difference (5) 21:9 41:7 45:23 46:21 74:22 differ (10) 1:24 6:24 8:21 10:7 36:16 45:17,24 69:3 76:3 77:13 differently (1) 61:25 difficult (1) 3:25 digest (1) 77:8 dignified (3) 2:21 24:12 81:25 dignity (1) 30:15 dimensions (1) 37:9 diminish (1) 77:21 direction (1) 81:12 directly (2) 13:16 65:7 disabused (1) 56:10 disagree (1) 10:16 disappointed (1) 34:3 disaster (2) 4:3,11 disasters (1) 62:2 disastrous (1) 62:23 disbelieve (1) 18:11 discharge (4) 34:22 35:9,12 65:11 discipline (1) 79:20 disclose (1) 42:12 disclosing (2) 55:6 76:4 disconnections (1) 60:15 discrete (1) 29:14 discussed (2) 15:21 40:11 discussions (1) 73:24 dishonest (4) 29:2 50:5 54:13 70:10 displayed (1) 69:3 disseminate (1) 66:23 dissemination (2) 50:6 60:2 dissociation (1) 37:2 distill (1) 28:9 distraction (1) 80:1 distribute (2) 36:9 46:16 dluhc (1) 68:19 document (10) 19:18 22:13 32:23 40:8 44:10 52:16,19 53:5 63:6 72:23 documentation (1) 14:16 documents (3) 34:4 72:1 78:25 does (11) 3:20 23:7 39:8 45:9 49:23,24 61:8 69:12 72:15,17 77:21 doesnt (9) 11:2 18:4 19:21 23:8 46:1 55:19 61:1 72:3,17 doing (6) 3:12 11:21 34:14 54:22 69:8 74:21 dominated (1) 49:11 done (13) 4:22 20:14 22:8 25:3 31:1 37:15 45:16 57:20 61:3,3,20,25 81:23 dont (8) 2:25 22:9 37:6 46:14 77:4,9 82:7,14 doomed (1) 30:18 doorclosers (1) 43:15 doors (5) 64:2,3 68:3,4,8 doubt (6) 3:24 16:25 37:6 57:21 58:2 73:13	doubtless (2) 48:24 54:4 doubts (1) 58:1 douglas (3) 1:11,19 2:15 down (4) 7:22 16:21 48:13 63:19 downward (1) 55:13 dr (16) 14:21,23 15:1,19 16:1,11 17:13,21 18:4,23 20:20,24 21:5 51:11,21 58:25 draft (1) 11:6 drafted (1) 42:10 drage (1) 79:8 draw (1) 61:1 drawings (1) 19:7 driving (1) 25:1 dropped (1) 51:18 due (5) 7:9 14:11 30:13 56:14 82:17 duly (1) 47:15 duplicity (1) 56:16 during (1) 5:17 dying (1) 55:8 <hr/> E <hr/> e (23) 8:12,20 10:13 13:15 14:8 41:18 42:14 43:6,19 44:1 52:10 57:2,24 59:3,4 63:13 67:17 69:1 74:20,20 75:6,20 76:12 ear (1) 80:13 earlier (3) 8:24 26:14 63:24 early (2) 53:19 65:22 easier (3) 4:8 31:23 41:15 easy (3) 2:19 9:11,12 ecclipses (1) 46:23 edge (1) 55:7 edinburgh (1) 4:23 effect (8) 6:7 28:22 36:20 44:22 47:24 49:3,8 52:19 effective (3) 24:15 79:22 81:25 effectively (1) 46:23 effects (2) 2:18 35:11 efficiency (1) 66:19 efficient (1) 39:21 either (6) 10:24 11:18 13:7 14:11 17:9 43:25 elected (2) 1:23 68:10 element (3) 3:15 13:4 22:18 else (5) 7:7 8:4 46:23 52:12 54:4 elses (3) 37:8 52:8 60:21 elsewhere (3) 20:10 66:6 67:20 email (7) 13:10 17:18,19 18:14,15,20 41:17 emailed (1) 8:5 emails (1) 30:23 embark (1) 82:5 emerged (2) 6:8 15:7 emerges (1) 11:7 emma (1) 79:9 emphasis (1) 24:25 emphasise (2) 25:2 33:4 employers (1) 13:4 enable (1) 81:24 enabled (1) 46:9 end (8) 3:9 8:15 12:12,12 25:3 59:8 77:11 81:20 ended (3) 10:2 13:9 49:2 endemic (1) 64:4 ends (2) 46:15 56:7 enduring (1) 33:2 energy (1) 66:19 engaged (6) 6:4 21:7 25:4,19 52:8 59:25 engagement (1) 37:5 engaging (1) 25:12 engineer (4) 8:3 21:7,13 52:7 42:5 63:19 engineering (4) 28:25 41:2 enormous (1) 82:5 enough (2) 1:13 53:13 enquiring (1) 74:21 enshrined (1) 66:21	ensued (2) 27:14 30:19 ensuing (1) 32:12 ensure (8) 3:20 24:15 25:1,12 32:20 55:10 63:17 82:14 ensured (1) 50:19 ensuring (2) 26:4 58:7 enthusiasm (1) 79:20 entirely (3) 18:10 52:9 71:20 environment (3) 33:6 66:15 70:16 equally (2) 6:3 11:20 equated (1) 61:25 equating (1) 54:21 equivalence (1) 66:21 equivalency (1) 76:14 equivalent (1) 75:3 error (2) 71:15 74:1 errors (5) 7:10 50:8 62:2 71:12,14 es (5) 8:14,16 12:24 58:11 67:3 escape (1) 32:11 especially (1) 41:17 essence (1) 77:6 essential (2) 2:1,3 essentially (2) 29:15 61:4 establish (2) 3:18 12:7 established (1) 25:5 estate (1) 62:6 estimation (1) 7:10 et (1) 59:24 euroclass (1) 66:21 european (1) 62:16 evacuation (1) 78:9 even (20) 8:8 11:13 12:23 13:17 17:3,4 29:2 32:3 34:5 47:1 48:13 50:17,18 53:5 55:9 57:19 62:9 63:23 73:3 78:7 event (2) 35:21 54:18 events (10) 9:20 24:10 25:25 35:19,23,25 36:1,2 66:8 69:11 eventuated (1) 28:13 ever (8) 7:3 39:21 42:23 43:6,23 53:9,20 75:3 every (4) 13:12 28:13,17 82:23 everybody (7) 3:17 10:1 22:15 52:12 53:12 54:4 78:16 everyone (3) 1:3 10:18 60:18 everything (3) 31:5 46:24 69:8 evidence (61) 4:8 5:16 7:23 8:1,7,19 9:12,14 11:8 12:11 14:4,8,9,10,15,16,23 15:2,7,9 16:6,12,18 17:21 18:5,6,11 20:6 23:22 28:8,23 29:22,25 30:20,23 34:1 35:22 36:9,18,25 37:6 46:7 47:6,14 49:5 53:14 56:19 58:23,24 59:15 61:6 64:25 65:16 70:1,18 72:9 73:23 74:9 75:7 78:11 80:14 evidencegathering (1) 80:9 evolution (1) 66:14 exactly (3) 7:7 75:8 81:1 examine (2) 48:25 61:6 example (7) 7:16,17 32:14,14 35:19 40:10 61:16 examples (1) 32:24 exceeded (1) 78:24 excellent (2) 78:23 79:23 exception (2) 14:7,7 exceptions (1) 33:4 exchange (2) 18:14 67:8 exchanges (1) 17:18 excluded (2) 23:3 50:25 exclusion (2) 73:8 74:4 exculpate (1) 33:7 exercise (3) 55:2 64:1 75:18 existed (1) 63:6
---	--	--	---	--	--	---

existence (1) 32:16
 exists (1) 61:9
 exit (1) 38:15
 exova (71) 1:12,16,18,25
 2:19 3:13,16 7:15 8:3
 10:11,20
 11:4,6,11,11,12,16,17,19
 12:13,18,21,25
 13:2,3,7,10,11,17,23,24
 14:5,18,22 15:6,22
 16:2,10,20 17:6,14,19
 19:6,9,9,17
 21:6,12,14,16,20,24
 22:3,5,8 41:24 43:16 44:19
 52:11 57:8,14,16,20
 59:19,20,25 60:23 61:3
 69:2 70:22 84:3
 exovas (1) 67:3
 expanded (2) 16:6 67:25
 expect (3) 33:22 34:10 49:23
 expectation (1) 34:2
 expected (3) 51:25 58:4
 64:12
 expensive (1) 6:20
 experience (3) 30:9 37:3
 44:5
 experiences (1) 54:12
 experiments (2) 4:22 47:7
 expert (6) 53:14 58:17,23
 59:16 70:1 78:25
 expertise (8) 8:11 9:9 30:6
 44:11 51:20 60:7,9 74:10
 explain (2) 38:3 47:21
 explained (2) 67:15 77:16
 explaining (1) 47:24
 exploit (2) 54:13 60:1
 exploited (2) 9:5 56:6
 explore (1) 3:3
 exposure (1) 33:16
 express (3) 10:17 11:1 61:12
 expressed (3) 59:7 81:22
 82:2
 expressing (1) 68:1
 expressions (2) 33:8 61:24
 expressly (5) 13:14 16:12
 31:25 34:17,21
 extended (2) 40:9 64:20
 extent (9) 5:21 15:4 20:25
 35:24 59:10,18 71:2,12
 75:19
 exterior (3) 4:14 19:3 40:5
 external (11) 16:4 17:16
 41:25 42:21,24 44:22
 55:16 62:19 64:20 67:10
 76:23
 extracted (1) 48:12
 eyre (1) 79:9

F

faade (3) 11:17 52:7 60:19
 faades (4) 43:20 58:3 67:17
 69:1
 fabricated (1) 39:11
 fabrication (1) 39:9
 facer (1) 70:21
 faces (1) 82:20
 facilitated (1) 71:2
 facilitating (1) 70:16
 facilitator (1) 56:15
 factor (6) 5:11,25 6:1,11,13
 15:25
 factors (9) 4:5 5:9 6:14 7:7
 9:1 11:15,22 23:1 29:14
 factual (1) 53:14
 fail (1) 55:19
 failed (18) 9:8,9 16:20
 24:17,19 35:9 41:5,21,24
 42:12 43:11 44:19,25 45:6
 51:15 56:13 61:20 66:3
 failing (10) 41:7 43:20
 44:14,15 50:7 51:6,7,18
 63:1 68:13
 failings (6) 25:24 36:24
 49:22 66:7 69:13,15
 failure (24) 12:2,7 16:22
 24:15,21 29:6,8 30:11,13

32:23 33:3 39:10 48:8
 52:3,24 54:9 55:17 66:23
 67:4,7,12,22 69:4,8
 failures (5) 9:25 29:7 43:12
 55:14 65:21
 fair (4) 1:10 47:18 61:8
 70:24
 fairly (3) 57:25 58:1 71:18
 falling (1) 75:14
 falls (1) 41:19
 false (2) 37:3 56:8
 familiar (1) 82:20
 families (6) 31:8 33:19
 37:13,18 80:7 81:9
 far (15) 10:4 21:8 34:16 36:8
 38:15 40:2 41:11 42:9
 50:16 57:13 60:20 64:11
 76:17 78:24 79:22
 fast (1) 51:10
 fateful (1) 5:6
 fault (5) 32:1 42:8,17 66:11
 68:20
 fd30s (1) 68:4
 featherston (1) 78:18
 february (1) 57:1
 fell (1) 58:18
 ferocity (1) 15:5
 few (1) 32:5
 fierce (1) 51:10
 filler (4) 40:8 45:8 55:7,9
 filtered (1) 66:10
 final (3) 1:6 81:5 82:9
 finalised (1) 8:15
 finally (6) 22:6 23:13 25:17
 64:22 67:11 80:17
 find (7) 34:24 35:18,22
 37:23 42:17 53:13 56:3
 finger (1) 20:10
 finish (1) 22:23
 fire (92) 5:2,6 6:8,9 7:20,21
 8:3,7,10 16:5,8 21:7,13
 25:7 27:12,24 28:6,12,25
 30:12,17 31:7,10 32:12
 33:6,9 35:23 36:25
 38:11,14,15,16,22 39:6,25
 41:2,11 42:5,20,21,24
 43:1,7,11,14,24
 44:3,12,15,16,20,22
 46:19,21 47:9 49:3
 51:10,10,19 52:3 54:6,11
 55:4,7,13,16 57:9,19 60:20
 61:17,18 62:11 64:3
 65:3,15 66:18,24
 67:8,10,13 68:4,22 69:19
 70:7 72:13 74:14,24
 75:11,23 78:6,8,10
 firebased (1) 8:12
 firefighting (1) 43:17
 fires (3) 29:9 39:24 51:7
 first (27) 1:8 2:2,11 3:21
 4:2,6,13,19 5:11 9:16
 13:19 15:20 17:2 19:6
 27:10 38:17 39:16 40:2
 46:5,10 54:9 60:24 62:11
 74:21,25 76:18 80:24
 firstly (6) 3:3 16:20 18:14
 20:20 21:12 24:7
 fisher (1) 79:24
 fit (1) 9:3
 fitted (1) 32:21
 fiveyear (1) 68:10
 fixed (1) 9:3
 fixes (1) 51:3
 fixing (1) 53:4
 fixings (1) 40:23
 flat (6) 5:7 27:12,12 38:16
 44:12 68:3
 flats (1) 39:7
 floor (1) 27:13
 foam (2) 74:7 75:16
 focus (3) 31:2 34:12 66:17
 focused (1) 62:5
 focusing (1) 39:14
 foil (1) 70:21
 follow (3) 12:3 22:16 33:16
 followed (2) 45:4 72:9

following (8) 7:25 17:2,11
 23:22 27:14 38:13 48:17
 56:4
 follows (1) 59:22
 fools (1) 69:20
 fordham (2) 44:14 77:19
 forefront (1) 19:17
 form (6) 4:16 11:10 30:25
 61:1 75:2 76:10
 formalise (1) 13:20
 formed (2) 11:23 13:4
 forming (1) 17:5
 forms (1) 35:5
 fortescue (1) 79:11
 forth (1) 9:24
 forward (4) 10:8 22:22
 25:12,16
 forwardlooking (1) 22:13
 found (2) 15:10 27:6
 four (3) 9:1 17:11 81:1
 fr (2) 41:23 72:13
 fr5000 (2) 43:25 44:16
 framework (2) 9:1,6
 frankly (1) 25:20
 frans (1) 70:23
 fras (1) 67:22
 frcored (1) 41:14
 free (1) 35:13
 french (2) 43:4 56:24
 front (6) 14:19 30:22 68:3
 69:7 72:10 82:21
 fruit (1) 54:3
 fso (1) 65:12
 full (4) 1:25 32:20 47:3 58:6
 fully (2) 25:20 82:12
 functional (4) 42:1,24 53:10
 60:20
 functions (1) 34:22
 fundamental (4) 4:5 9:10
 30:11 69:4
 funding (1) 66:17
 further (10) 2:10
 19:12,13,14 20:5,17 25:14
 27:17 44:23 77:25
 future (3) 22:22 41:25 67:9

G

gadd (1) 79:14
 gaps (1) 38:19
 garnock (2) 54:25 55:1
 gateway (2) 72:5 76:1
 gave (4) 44:20,23 46:6 80:20
 general (3) 43:18 47:10
 66:11
 generally (1) 78:3
 generic (1) 68:6
 generically (1) 48:5
 george (1) 79:9
 get (3) 37:19 46:5 79:25
 gets (7) 39:7 46:24 47:2
 51:5 58:3 64:15,15
 getting (2) 25:21 48:13
 give (8) 2:19 15:11 22:3
 26:15 31:8 57:15 69:4
 81:21
 given (5) 7:23 57:10 63:16
 70:2 74:9
 gives (1) 26:5
 giving (2) 54:22 68:9
 goal (1) 38:2
 goes (2) 21:8 62:9
 going (19) 1:4,8,8 8:21
 9:15,16 12:8 15:10 16:14
 23:13 26:9,23 37:20,25
 47:23 56:18 61:15 73:2
 77:19
 good (3) 1:3 73:5 78:22
 governance (1) 30:8
 government (22) 28:5 29:6
 40:15,17 46:24 51:5 52:4
 54:2,8,9 58:10 59:23 61:21
 62:21,22,24 63:1 66:19
 67:21 68:17 78:4,6
 governments (6) 28:3 30:11
 39:20 51:8 63:4 66:23
 grand (1) 30:21

grange (1) 79:2
 granted (1) 33:22
 grapple (2) 9:10 12:9
 grasp (1) 24:19
 grateful (1) 1:20
 gratitude (1) 79:1
 gravity (6) 2:7 11:3 15:17
 19:22 22:19 23:8
 great (2) 77:4 82:21
 green (1) 39:20
 grenfell (44) 2:5 4:11 13:14
 16:8 19:3 23:7 27:13
 28:14,18 31:1,6,9 32:21
 35:23 39:12 41:10 42:21
 43:4,23 44:17 45:19,24
 48:22 49:20 54:2,6,8
 56:10,24 57:7,22 59:13
 60:14 61:17 62:2 63:13
 66:1,15,24 67:20 69:25
 74:23 76:11,19
 greygreen (3) 41:8 74:23
 75:7
 grief (1) 26:1
 grieving (1) 31:8
 grogan (1) 79:8
 ground (2) 18:17 30:22
 group (3) 10:12,14 20:14
 groups (1) 24:11
 guidance (9) 9:2,23 29:16,17
 45:5 48:17 50:12 55:24
 68:22
 guide (1) 68:15

H

haar (1) 79:10
 hackitt (1) 9:2
 half (1) 31:3
 hamfisted (1) 74:3
 hampered (1) 35:12
 hand (2) 52:15,20
 handle (1) 64:13
 handled (1) 65:13
 hands (1) 72:7
 hannah (1) 79:13
 hapless (1) 48:12
 happen (7) 3:20 23:7 25:2
 26:4 27:18 31:11 46:3
 happened (11) 3:19 5:20
 12:14 14:13,20 15:17
 20:15 23:4 36:14 61:17
 65:4
 happening (3) 13:18 17:5
 25:22
 hard (1) 53:13
 harder (1) 33:20
 harley (32) 10:15 13:14,15
 41:4,6,20 43:20 44:2
 49:18,20,22 50:17,19
 51:1,24 52:1,6,20
 53:3,17,20 56:9,10,25
 58:3,3,6 63:21 67:17 69:1
 75:22 76:9
 harleys (1) 58:11
 harm (1) 52:16
 harmed (1) 52:24
 harmonisation (2) 54:20 55:1
 having (10) 4:4 13:11 16:13
 49:2 64:23 67:14,25 77:1
 81:16,18
 hayes (1) 46:6
 headed (1) 79:24
 health (1) 69:6
 hear (9) 1:4,6,8,15 23:13
 26:9,18,23 32:7
 heard (15) 1:12 4:8 5:16 8:6
 10:9 14:10 23:23 28:8
 59:8,20 60:23 74:9
 81:16,18 82:4
 hearing (2) 1:4 83:4
 hearings (3) 81:19,20,24
 height (1) 56:22
 held (1) 24:18
 helena (1) 79:8
 help (4) 7:17 15:16 23:8
 37:17

helpful (5) 2:25 4:1 19:21
 33:1 66:8
 helps (1) 75:4
 here (11) 3:19 21:20 54:7
 59:1 70:3,19 72:9 77:25
 79:17 80:23 82:19
 herefordshire (1) 48:12
 hierarchy (1) 36:7
 highest (1) 51:20
 highlight (1) 20:5
 highly (2) 7:2 29:23
 highrise (6) 5:21 30:12 44:6
 51:12 61:19 76:24
 himself (1) 68:16
 hindsight (1) 61:24
 history (4) 10:19 22:24 23:2
 66:14
 hoban (1) 45:3
 hoc (6) 8:5,10,11 17:19
 19:19 57:15
 hold (1) 12:21
 holistic (2) 41:1 42:5
 hollie (1) 78:21
 holli (1) 78:20
 home (1) 30:14
 honest (1) 18:13
 honour (1) 2:3
 hope (1) 47:12
 hoped (1) 31:22
 hopes (2) 24:6 26:3
 horrifying (1) 4:19
 hours (1) 27:15
 house (1) 71:22
 housekeeping (1) 27:5
 houses (1) 54:16
 housing (7) 23:15,18,21
 61:22 62:6 64:3 84:5
 howarth (1) 78:20
 however (3) 34:20 68:23
 78:17
 human (4) 2:21 30:9,14 74:1
 humankind (1) 34:10
 humility (1) 3:14
 humour (1) 78:22
 hundreds (3) 34:7 61:18
 80:14
 husk (1) 65:18
 hyett (3) 58:24 59:16 74:25
 hynes (1) 79:9
 hypotheses (1) 36:13

I

id (1) 20:18
 idea (1) 30:13
 ideas (1) 30:16
 identical (1) 32:21
 identified (3) 4:4 38:9 69:15
 identifies (1) 38:12
 identify (4) 4:3 11:15 36:18
 50:8
 identifying (3) 4:6 60:8,10
 idly (1) 25:6
 idx0965 (1) 27:7
 ignored (3) 20:16 21:17
 41:22
 ill (1) 15:11
 illfocused (1) 30:1
 illicit (1) 6:24
 im (9) 16:14 19:23 26:14
 65:15 71:17,17 77:8,18,22
 images (1) 4:20
 immeasurable (1) 26:1
 immediately (1) 28:21
 immense (1) 81:8
 impact (1) 32:13
 impartiality (1) 56:14
 impinge (1) 38:22
 implementing (1) 25:15
 implicating (1) 43:15
 implications (1) 62:25
 implicitly (1) 16:12
 importance (6) 15:20,22
 17:17 49:4 69:9 77:22
 important (17) 5:11 6:11
 14:1 15:1,9,15,25 17:11,25

19:1 20:8 21:16 22:1 23:3
 24:18 48:24 65:20
 importantly (3) 14:25 16:1
 24:7
 impossible (3) 36:5,11 79:21
 improved (1) 77:24
 inability (1) 30:3
 inaccurate (1) 57:5
 inadequacy (1) 55:15
 inadequate (1) 29:25
 inappropriate (2) 57:23
 61:11
 incapable (1) 42:23
 incidents (1) 31:11
 include (2) 21:19 42:11
 included (2) 17:20 63:22
 including (7) 6:14 23:1 29:17
 49:9 50:5 55:12 76:23
 incompetence (3) 28:24 29:4
 37:3
 incompetent (2) 29:1 70:14
 incomplete (2) 57:13 68:9
 incontestable (1) 81:12
 incorporate (1) 40:24
 incorporating (2) 19:4 47:10
 increase (1) 66:19
 indefatigable (1) 80:13
 indefensible (1) 5:10
 independent (2) 25:4 30:2
 index (1) 84:2
 indicate (2) 18:20 38:1
 indicated (3) 1:18 24:1 77:14
 indications (2) 31:20 67:13
 indirectly (1) 65:8
 individual (2) 31:13 39:7
 individuals (3) 30:6 69:18
 80:8
 induced (1) 51:2
 indulge (1) 31:21
 industries (2) 28:2 36:3
 industry (6) 28:25 36:3
 54:11 55:11 62:20 64:4
 inevitably (1) 82:9
 inexplicably (1) 55:6
 inextricably (1) 28:21
 inferred (1) 34:23
 infinite (1) 36:17
 influence (3) 36:3 49:8 78:9
 influenced (1) 29:19
 inform (1) 19:9
 information (7) 9:19,21 13:8
 16:3 17:15 42:10 68:9
 informed (1) 15:22
 informing (1) 27:11
 inherent (2) 45:6 76:15
 inhibited (1) 34:22
 inhouse (1) 67:15
 injury (1) 3:6
 inner (1) 38:25
 input (1) 52:10
 inquest (1) 55:14
 inquiries (2) 33:23 34:17
 inquiry (55) 1:7,17 2:12
 3:4,24 4:9,22 5:5 6:6 7:21
 9:13 14:25 15:12 16:25
 18:1,9,22 19:24 20:15
 21:25 23:5,23 24:1,6,13
 25:4,12,17,19,24 26:10,25
 27:3,8,14 31:17 32:3
 33:3,14,20 34:2 35:12 47:6
 61:10 68:18 77:3 78:14,18
 79:18 80:19,23,25 81:2,19
 84:7
 inquiries (5) 25:16,21 80:17
 81:19,22
 inserting (1) 46:4
 inside (1) 44:9
 insight (1) 80:21
 insisting (1) 74:24
 inspected (1) 68:16
 inspection (2) 45:1 68:11
 inspections (1) 68:15
 inspectors (1) 56:2
 installation (3) 52:2 65:25
 68:10
 installed (3) 41:10 76:19

80:19
 installing (1) 62:7
 instances (1) 71:4
 instead (3) 1:18 33:12 36:17
 institution (1) 29:13
 instructed (1) 13:20
 instruction (1) 19:14
 instrumental (1) 22:25
 insufficient (2) 29:25 30:2
 insulation (26) 29:3
 38:20,21,24
 39:15,17,18,19,22,23,25
 42:4 44:8 46:11,18,20,25
 47:8,25 48:22 54:5 56:8
 69:24 70:22 73:18 76:1
 intend (1) 82:7
 intended (1) 24:21
 intention (1) 11:7
 interaction (1) 8:9
 interchangeability (1) 51:22
 interchangeable (1) 51:24
 interest (4) 30:4 33:25 54:19
 82:25
 interests (2) 29:20 34:1
 interlinked (1) 28:21
 internal (3) 30:7 43:11 70:20
 interpret (2) 22:20 34:25
 interpretation (1) 51:3
 interrupt (1) 26:12
 interruption (2) 26:16 80:1
 intersect (1) 62:3
 into (7) 27:4 38:16 44:12
 47:23 54:15,25 74:6
 introduction (2) 7:13 55:9
 investigate (5) 35:18 36:22
 41:7 44:16 45:3
 investigated (2) 43:24 44:3
 investigation (3) 45:1 75:21
 79:21
 invite (1) 34:25
 invited (4) 11:25 12:13,15,19
 invites (1) 25:17
 involve (1) 7:19
 involved (10) 9:16 10:1
 13:12 22:24 23:2 36:10
 39:24 42:25 70:6 79:6
 involvement (2) 12:16 24:12
 involving (1) 61:23
 irrelevant (3) 18:18 48:18
 50:17
 islam (1) 79:15
 isat (6) 18:25 59:1 65:8
 71:22,24,24
 iso (1) 71:23
 issued (1) 45:2
 issues (4) 3:21 8:6 35:15
 57:9
 iterative (1) 76:25
 its (113) 2:11,19,25 3:24
 4:10 5:14 7:10,15 10:5
 11:6,23 12:1
 13:15,16,17,19 15:1 16:4
 19:20 20:20 21:8 23:25
 24:8,15,25 25:18,24,24
 26:3,11 28:12 29:10 32:4
 35:13 38:10,12 41:18
 42:1,16,17 43:4 44:7,14,17
 45:7,10,11
 46:2,13,13,14,14
 47:13,21,21,22
 49:5,6,7,7,8,14
 50:7,17,21 51:5,13 56:14
 57:9,12,16,19,20 58:1,4,22
 59:2,7,9,12,20 61:12 62:20
 63:9,16 64:19 65:11,13,21
 66:7,7,9 67:4,7,18,19
 69:16 70:12 71:3,10,17,19
 72:6,19 73:9 76:5,17 77:7
 78:8 80:23 81:3 82:21
 itself (9) 5:1 44:7 53:3 56:5
 57:8 58:9 59:11 61:18 65:1
 ive (7) 7:3 15:13,21 16:16
 19:23 52:14 77:16

J

january (1) 57:4

Opus 2
Official Court Reporters

transcripts@opus2.com
020 4515 2252

<p>20:7 21:2,19</p> <p>party (1) 11:5</p> <p>pass (3) 46:5,8 68:8</p> <p>passage (2) 15:13,18</p> <p>past (3) 22:16,21 51:7</p> <p>path (2) 54:2,8</p> <p>patience (1) 81:6</p> <p>patient (1) 80:13</p> <p>paving (1) 54:12</p> <p>pay (2) 2:16 30:13</p> <p>paying (1) 75:22</p> <p>pe (38) 4:14,25 6:16,22 7:13 11:7,9,19 12:5 13:13 15:21 17:6 19:5 38:8 39:5 40:18 42:9,23 44:4 46:17 47:2 50:17,20 51:9,14 52:14,23 54:5 57:2,4,21 62:11,13,24 63:21 65:25 72:11 76:10</p> <p>peddling (1) 50:22</p> <p>peeps (1) 64:22</p> <p>peer (1) 30:2</p> <p>peffer (1) 80:4</p> <p>people (3) 3:15 40:11 58:5</p> <p>peoples (1) 69:6</p> <p>per (1) 68:15</p> <p>perfect (1) 52:5</p> <p>perform (1) 43:20</p> <p>performance (6) 43:24 44:4 55:16 75:11 76:7,21</p> <p>performed (1) 35:4</p> <p>perhaps (1) 78:4</p> <p>period (2) 8:16 12:12</p> <p>permanent (1) 37:12</p> <p>permits (1) 36:9</p> <p>permitted (2) 25:2 40:4</p> <p>persist (1) 29:25</p> <p>persistence (1) 79:20</p> <p>personal (1) 81:5</p> <p>personally (3) 2:12 79:1 82:3</p> <p>persons (3) 33:22 34:18 35:7</p> <p>perspective (2) 7:15 15:15</p> <p>pervasive (1) 37:1</p> <p>phase (8) 27:13,18 28:9 32:3 38:9 47:8 79:7 81:3</p> <p>phases (2) 25:20 79:4</p> <p>phenolic (3) 73:18 74:6 75:16</p> <p>phil (1) 56:16</p> <p>physical (1) 30:14</p> <p>pick (1) 3:9</p> <p>picking (1) 20:21</p> <p>picture (3) 9:22 47:19 78:1</p> <p>piecemeal (1) 29:15</p> <p>pin (1) 33:7</p> <p>pithy (2) 66:4 68:24</p> <p>place (7) 11:2 19:21 33:21 46:5,10 55:2 67:20</p> <p>placed (1) 18:22</p> <p>places (1) 46:5</p> <p>pliant (3) 37:4 40:24 66:5</p> <p>plainly (1) 16:17</p> <p>planned (1) 68:14</p> <p>plans (1) 19:7</p> <p>play (2) 28:16 70:5</p> <p>played (5) 12:2,5 38:21 46:9 47:8</p> <p>playing (1) 12:18</p> <p>please (4) 1:14 26:19 38:5,6</p> <p>pleased (1) 82:8</p> <p>pleasure (1) 82:22</p> <p>pliant (1) 54:14</p> <p>plumpton (1) 79:16</p> <p>pm (1) 83:3</p> <p>pointed (1) 68:25</p> <p>pointer (1) 77:15</p> <p>pointless (1) 73:21</p> <p>points (10) 3:10,13 17:11 20:17 21:11 47:13 49:4 52:6 61:14 71:18</p> <p>policies (2) 30:8,10</p> <p>policy (1) 66:20</p> <p>polycymakers (2) 29:16 81:11</p> <p>politely (1) 47:22</p> <p>political (1) 62:21</p> <p>polyethylene (4) 39:2 41:14 53:9 60:25</p>	<p>polyethylenecored (1) 40:25</p> <p>ponder (1) 73:13</p> <p>poor (2) 28:24 30:1</p> <p>posting (1) 36:12</p> <p>position (10) 9:15 21:22 32:15 33:14 53:19 59:7,9 65:5 76:18 77:6</p> <p>positions (1) 77:24</p> <p>positive (1) 67:11</p> <p>post1984 (1) 54:10</p> <p>post2013 (1) 55:14</p> <p>postcontract (2) 8:4 10:21</p> <p>postfire (2) 61:11,20</p> <p>postgrenfell (1) 52:3</p> <p>potency (1) 36:1</p> <p>potential (2) 36:15 74:15</p> <p>potentially (3) 36:17 52:18 74:17</p> <p>power (1) 34:19</p> <p>powers (1) 71:20</p> <p>practical (1) 37:11</p> <p>practice (4) 7:1 16:7 22:14,16</p> <p>practices (7) 9:24 28:24 29:2 70:11,13,17 71:7</p> <p>praise (1) 64:16</p> <p>preappointment (1) 21:14</p> <p>precise (2) 18:9 40:20</p> <p>precisely (1) 75:19</p> <p>precluded (1) 35:6</p> <p>preconceived (1) 30:21</p> <p>precontract (1) 63:22</p> <p>preferred (1) 41:13</p> <p>prefers (1) 71:8</p> <p>premise (1) 17:22</p> <p>preparation (2) 79:6,19</p> <p>preparedness (1) 27:22</p> <p>presence (7) 38:10,23 39:4 46:22 56:17 61:2 83:1</p> <p>present (1) 38:3</p> <p>presentation (2) 38:5 78:12</p> <p>presented (4) 13:1 29:11 42:16 66:8</p> <p>presiding (1) 70:13</p> <p>pressing (1) 82:13</p> <p>prevailing (2) 9:23 35:4</p> <p>prevent (1) 25:22</p> <p>previous (1) 82:7</p> <p>price (2) 7:10 63:19</p> <p>primary (1) 10:12</p> <p>prime (1) 63:6</p> <p>principal (2) 27:17 38:11</p> <p>principally (1) 31:25</p> <p>principles (1) 35:16</p> <p>prioritisation (2) 6:13,19</p> <p>prioritise (2) 11:9,22</p> <p>prioritising (1) 8:23</p> <p>prism (2) 66:9,10</p> <p>privacy (1) 30:14</p> <p>private (3) 34:1 61:22 71:19</p> <p>privatisation (1) 56:14</p> <p>priya (1) 79:15</p> <p>proactively (2) 16:3 17:15</p> <p>problem (6) 9:10 21:24 62:6 64:4,7 68:6</p> <p>problems (3) 45:6 63:5 64:2</p> <p>procedure (1) 12:4</p> <p>proceedings (4) 33:15 61:10 82:16,20</p> <p>proceeds (1) 17:22</p> <p>process (8) 2:1 6:24 7:16 13:5 17:6 67:25 71:24 76:25</p> <p>procure (1) 6:23</p> <p>procurement (2) 7:1 67:25</p> <p>produce (1) 82:11</p> <p>product (9) 40:14 48:2 51:12,16 53:1 56:20 72:4 74:16,19</p> <p>production (1) 5:17</p> <p>productionise (1) 52:8</p> <p>products (7) 6:7,9 40:16 42:4 60:3 70:12 71:5</p> <p>professed (1) 30:6</p>	<p>profession (3) 16:8 29:1 49:13</p> <p>professional (3) 19:10,11 69:23</p> <p>professionals (3) 32:19,22 43:19</p> <p>professor (4) 22:7,8,12 70:2</p> <p>professors (1) 4:24</p> <p>profoundly (1) 5:24</p> <p>programme (3) 68:11,11,14</p> <p>progressed (1) 78:15</p> <p>prohibited (1) 35:10</p> <p>prohibits (1) 34:17</p> <p>project (8) 10:1 13:13 14:5 51:9 57:8 60:14 63:13 65:10</p> <p>projects (1) 60:7</p> <p>promised (3) 41:24 57:17 67:9</p> <p>promote (1) 7:8</p> <p>promoted (2) 5:12,14</p> <p>promoting (1) 50:13</p> <p>promotion (2) 6:5 11:18</p> <p>promulgated (1) 55:25</p> <p>proper (5) 6:25 7:4,14 45:1 67:25</p> <p>properly (11) 11:2 18:8 41:21 43:23 45:16 52:17 53:7 57:20 63:1 64:12 68:4</p> <p>properties (1) 69:24</p> <p>proportion (1) 48:22</p> <p>propose (1) 77:9</p> <p>proposed (5) 16:11,14 44:21 45:18 74:23</p> <p>proposing (1) 78:2</p> <p>prospective (1) 13:6</p> <p>protect (1) 39:16</p> <p>protection (1) 69:6</p> <p>protocols (1) 30:8</p> <p>provide (2) 17:19 67:9</p> <p>provided (6) 11:6 12:25 13:2,5,7 59:4</p> <p>provides (1) 34:21</p> <p>provisional (1) 67:11</p> <p>provisionally (1) 57:11</p> <p>provisions (1) 72:22</p> <p>provoked (1) 33:11</p> <p>psb (2) 43:16 77:19</p> <p>public (13) 31:9,25 33:12,20,21,23,25 37:13 47:19 51:8 72:5 77:22 81:10</p> <p>publicise (1) 51:7</p> <p>publicly (2) 78:14 80:17</p> <p>publishing (1) 54:15</p> <p>purity (1) 30:9</p> <p>purpose (6) 9:3 20:4 25:10 56:25 61:9 78:22</p> <p>purposes (1) 62:21</p> <p>pursued (1) 30:10</p> <p>pushed (2) 13:15 63:21</p> <p>pushing (1) 50:3</p> <p>puts (1) 17:9</p>	<p>Q</p> <p>qualification (1) 66:3</p> <p>qualified (3) 68:7 72:2,25</p> <p>quality (2) 59:10,12</p> <p>queries (1) 8:5</p> <p>question (13) 4:1 18:19 19:19 27:18 34:7,10 35:20 37:17 56:16,19 59:10 65:1 73:13</p> <p>questioning (1) 47:11</p> <p>questions (2) 34:6 48:14</p> <p>quickly (1) 82:13</p> <p>quite (8) 11:7 15:1,14,25 17:25 18:8 33:18 63:11</p>	<p>R</p> <p>rachel (2) 79:9,9</p> <p>radar (2) 55:3 66:20</p> <p>rain (1) 39:17</p> <p>rainscreen (3) 20:21 39:19 40:9</p> <p>ran (1) 4:16</p> <p>range (2) 31:4 32:24</p> <p>ranking (2) 10:6,17</p> <p>rare (2) 33:10 74:1</p> <p>rather (8) 3:1 14:17 16:19 26:12 32:2 54:25 60:21 74:3</p> <p>rational (1) 63:15</p> <p>rawat (1) 79:11</p> <p>rbkc (16) 7:18 11:8 12:3 13:16 29:8 43:12,16 52:11 65:19,20 66:2,8,11 67:16,18 68:12</p> <p>rbkcs (4) 44:25 58:14 66:5 69:2</p> <p>rbkctmo (2) 6:19 7:6</p> <p>reached (1) 81:20</p> <p>reaching (1) 35:10</p> <p>reaction (4) 55:3 75:10,12,23</p> <p>read (23) 3:1 16:3 17:15,23 18:2,10,15 22:12 27:4,6 32:23 41:21 45:16 50:19 51:1 52:17,17,25 53:7 72:2 73:17 79:14 82:4</p> <p>reader (4) 72:16,25 73:10,17</p> <p>readers (1) 56:1</p> <p>reading (5) 17:21 32:19 41:3 52:21 53:2</p> <p>ready (1) 1:14</p> <p>real (4) 3:19 48:13 60:7 69:4</p> <p>realise (1) 24:21</p> <p>reality (2) 3:19 34:11</p> <p>really (11) 2:2 4:18 10:1 15:1,14 21:11 22:9 31:7,16 66:10 77:4</p> <p>reason (6) 10:11 18:11 36:22 50:25 58:2 64:17</p> <p>reasonable (2) 73:10,17</p> <p>reasonably (5) 28:11 36:19 58:12 63:12 65:22</p> <p>reasons (6) 2:2 4:19 17:6 28:20 34:14 62:7</p> <p>recall (2) 19:13 70:19</p> <p>recalled (1) 14:9</p> <p>receive (2) 7:3 47:19</p> <p>received (1) 12:24</p> <p>receiving (1) 25:16</p> <p>recent (1) 64:21</p> <p>recently (2) 10:10 80:19</p> <p>recognise (3) 9:8 15:24 54:11</p> <p>recognises (1) 24:17</p> <p>recognising (2) 3:14 21:23</p> <p>recognition (1) 25:24</p> <p>recommendations (5) 16:21 23:6 25:16 34:24 63:3</p> <p>recommending (2) 44:17 51:17</p> <p>record (4) 24:8 27:4 63:16 80:17</p> <p>recouping (1) 7:9</p> <p>redolent (1) 36:25</p> <p>reduction (1) 15:3</p> <p>reductions (1) 12:2</p> <p>refer (2) 23:23 74:3</p> <p>reference (11) 15:11 20:21 27:5,7 32:9 35:13 73:6,17 74:1 75:14,25</p> <p>referred (2) 7:3 73:12</p> <p>reflected (3) 47:15 59:10 69:13</p> <p>reflecting (1) 37:12</p> <p>reflection (1) 81:5</p> <p>reflects (1) 15:6</p> <p>reforms (1) 25:11</p> <p>refurbished (2) 27:23 43:15</p> <p>refurbishment (11) 12:13 44:21 49:20 57:7 60:14 61:13,23 63:13 65:10,14 69:25</p> <p>refusing (1) 51:6</p> <p>regard (3) 21:1 22:12 32:13</p> <p>regarded (6) 10:12,22 14:18 40:4 72:15 76:15</p> <p>regards (1) 60:20</p> <p>regime (19) 24:16,18 43:22 47:4 49:6 54:11 56:7 59:23 60:2 67:1 68:20 69:17 70:21,25 71:1,7 75:14 76:14,22</p> <p>register (1) 78:14</p> <p>registered (1) 55:22</p> <p>regret (2) 33:8 37:10</p> <p>regrets (2) 46:12 71:8</p> <p>regrettable (1) 33:2</p> <p>regulate (2) 30:3 67:22</p> <p>regulated (1) 71:25</p> <p>regulating (1) 28:6</p> <p>regulation (5) 9:2 51:19 55:20 56:5 63:18</p> <p>regulations (12) 9:23 12:8 28:1 39:13 53:11 58:7 64:5 68:5 69:5,10,20 71:25</p> <p>regulatory (15) 3:8 8:13 24:16,22 25:9 36:4 43:22 47:4 54:10 59:23 66:14 68:20 69:16 75:14 76:22</p> <p>reins (1) 80:22</p> <p>reissues (1) 72:8</p> <p>related (3) 4:15 19:19 68:22</p> <p>relating (1) 43:2</p> <p>relation (5) 10:10 16:9 44:22 50:9 53:4</p> <p>relationship (1) 35:6</p> <p>relatively (1) 5:22</p> <p>relevance (3) 32:9,11 38:14</p> <p>relevant (5) 16:3 17:15 18:15 36:18 43:1</p> <p>reliance (3) 9:21 20:7 48:3</p> <p>reliant (1) 52:9</p> <p>relied (6) 13:24 20:12 21:4,19 58:12 63:11</p> <p>relief (1) 81:10</p> <p>relies (1) 70:1</p> <p>rely (2) 57:18 59:17</p> <p>remain (3) 14:24 29:23 34:20</p> <p>remaining (1) 7:11</p> <p>remains (3) 34:7 65:18 74:5</p> <p>remarkable (2) 7:23 79:5</p> <p>remarks (5) 24:5 26:10,16 81:14 84:8</p> <p>remember (1) 56:1</p> <p>reminded (1) 31:18</p> <p>removed (1) 74:16</p> <p>rendered (1) 59:11</p> <p>renewal (1) 76:7</p> <p>repeat (2) 2:24 82:7</p> <p>repeated (4) 37:10 57:10 65:22 67:18</p> <p>repetition (1) 24:2</p> <p>replaced (1) 44:1</p> <p>report (19) 12:24 14:21,24 15:2,18 16:12 17:12 19:12,14 21:5 22:7,12 38:9 47:15 54:25 55:3 81:8 82:9,11</p> <p>reports (3) 11:6 15:8 30:24</p> <p>representative (1) 43:5</p> <p>representing (1) 76:9</p> <p>reprocurement (1) 63:25</p> <p>request (1) 67:3</p> <p>required (4) 12:4 19:14 40:6 42:6</p> <p>requirement (4) 42:1,24 53:10 73:20</p> <p>requirements (4) 13:5 16:21 60:20 73:8</p> <p>requisite (1) 44:5</p> <p>reread (1) 15:13</p> <p>research (1) 66:18</p> <p>residential (2) 5:22 44:6</p> <p>residents (6) 6:16 24:11 26:2 27:16 39:7 65:13</p> <p>resist (1) 43:11</p> <p>resistance (1) 75:13</p> <p>resistant (2) 68:4 72:13</p> <p>resolve (2) 52:14 56:19</p> <p>resource (2) 67:15,16</p> <p>respect (17) 2:4 30:13 33:18 43:14 60:3 61:13 65:13 67:18,19,21 68:7,20,21,23 77:4 78:5 80:8</p>	<p>respectful (3) 15:24 20:16,23</p> <p>respectfully (14) 4:7,10,24 10:16 14:14 15:7,14 16:16 17:7 18:12 21:1,10,25 22:11</p> <p>respects (1) 45:18</p> <p>respond (2) 3:13 63:2</p> <p>responding (1) 61:9</p> <p>response (2) 36:4 67:3</p> <p>responsibilities (1) 65:12</p> <p>responsibility (15) 10:7,13 33:10,12 35:1 36:9 46:2,15 57:25 58:6 60:12,17,21 77:1 78:3</p> <p>responsible (9) 11:4 12:7 13:16 29:5 33:5 46:19 49:19 60:18 66:10</p> <p>rest (2) 40:13 47:12</p> <p>result (10) 2:9 4:21 5:9 8:16,25 24:19 28:16 31:1 42:13 68:9</p> <p>resultant (1) 54:20</p> <p>resulted (1) 51:9</p> <p>results (6) 5:19 50:6 51:8 62:12 66:23 76:5</p> <p>resume (1) 26:17</p> <p>retain (1) 40:15</p> <p>retained (1) 57:14</p> <p>retaining (2) 51:13 54:24</p> <p>retention (1) 62:21</p> <p>revealed (5) 36:24 49:5 61:18 65:14 72:8</p> <p>reveals (1) 70:18</p> <p>review (5) 7:22 9:14 30:2 63:7 76:7</p> <p>reynobond (14) 4:13 19:4 40:18 44:4 50:17,20 52:14 57:2,4,21 62:13 65:25 72:11 76:10</p> <p>richard (1) 26:10</p> <p>rig (5) 32:17 45:10,20,23 56:18</p> <p>rigging (3) 46:3 50:5 63:8</p> <p>rise (2) 2:9 26:17</p> <p>risk (3) 5:14 28:6 30:12</p> <p>risks (4) 28:13 29:7,11,12</p> <p>rivet (5) 43:6 50:23 53:18 56:21 76:8</p> <p>roadmap (1) 66:8</p> <p>robustly (1) 30:4</p> <p>role (18) 2:6 7:16 11:23 12:19 24:18 36:2 42:15 46:8 47:9 49:1 60:16 65:2,7 67:24 70:4,16 71:19,19</p> <p>roles (2) 44:5 77:22</p> <p>room (1) 27:11</p> <p>root (1) 71:6</p> <p>roper (1) 46:6</p> <p>ros (1) 78:21</p> <p>rose (1) 79:8</p> <p>ross (1) 78:20</p> <p>round (2) 12:21 47:15</p> <p>route (2) 45:3 56:4</p> <p>routes (1) 43:22</p> <p>rowan (1) 69:2</p> <p>rro (1) 64:19</p> <p>rs5000 (20) 6:5 19:5 32:16 42:22 43:25 44:2 45:10,12,23 46:9 50:14 55:22 56:3,9,11,18 57:21 63:8 65:25 67:4</p> <p>ruling (1) 34:17</p> <p>run (1) 63:12</p> <p>runs (1) 64:10</p> <p>runup (1) 28:23</p> <p>rydon (38) 7:6,8,18 8:2,14 10:15 11:8 12:1,3 13:14,15,19 21:6,8,15 22:4 41:16 43:19 44:7 52:11 53:23 54:9 56:6,14,22,23 57:12,17,24 58:4,9,18,21 59:1 60:16 63:15 67:12 69:1</p> <p>rydons (5) 8:18 12:4,16,23 21:18</p>	<p>S</p> <p>sadness (1) 80:18</p> <p>safe (4) 46:17 50:20 51:18 57:12</p> <p>safely (2) 48:20 53:10</p> <p>safety (23) 5:18 8:23 25:7,8 30:15 42:3 43:1,14 44:20 47:9 48:4 51:19 57:10,19 66:18 67:8,19 68:22 69:6,19 72:4 78:6,10</p> <p>sakula (1) 58:23</p> <p>sale (2) 6:5 48:2</p> <p>sales (4) 43:5 45:10 47:23 48:4</p> <p>salisbury (1) 79:13</p> <p>sam (2) 79:11,14</p> <p>samantha (1) 79:11</p> <p>same (7) 5:4 6:7 7:7 41:20 43:7 50:9 75:8</p> <p>sample (1) 68:16</p> <p>sarah (1) 79:14</p> <p>sat (1) 82:23</p> <p>satisfying (1) 40:22</p> <p>save (1) 14:6</p> <p>saved (2) 21:23 53:3</p> <p>saving (1) 11:23</p> <p>savings (2) 11:24,25</p> <p>saw (1) 17:24</p> <p>sawtell (1) 73:4</p> <p>saying (4) 3:15 5:10 9:25 13:9</p> <p>scale (3) 62:5 68:6,12</p> <p>scarlett (1) 79:13</p> <p>scds (1) 68:7</p> <p>scenarios (1) 72:18</p> <p>scenes (1) 79:25</p> <p>scheme (1) 19:6</p> <p>scientist (1) 51:11</p> <p>screen (1) 38:5</p> <p>scrutiny (2) 7:4,14</p> <p>sdpl (1) 44:7</p> <p>sean (1) 1:9</p> <p>seats (1) 82:21</p> <p>second (9) 2:5 4:15 6:11 13:21 16:15 17:10 20:18 39:19 76:22</p> <p>secondary (1) 10:14</p> <p>secondly (8) 3:8 16:1,22 17:7 18:16 21:4 24:14 60:25</p> <p>secret (2) 6:24 11:25</p> <p>secretariat (1) 79:24</p> <p>secretary (2) 80:19,22</p> <p>section (7) 19:25 34:16,21 40:8 49:12 73:7 75:10</p> <p>sector (2) 29:3 61:18</p> <p>secured (1) 12:1</p> <p>security (1) 80:5</p> <p>see (9) 12:10 18:8 40:9 43:8 45:17 66:9,10 68:17 82:22</p> <p>seedbed (1) 71:7</p> <p>seek (10) 3:2,12 4:2 15:16 22:9 36:6,8,17 37:21 53:25</p> <p>seeking (1) 22:19</p> <p>seeks (6) 42:19 46:15 49:25 59:22,24 68:8</p> <p>seems (3) 41:4 52:20 53:19</p> <p>seen (2) 2:5 9:12</p> <p>select (2) 51:17 54:24</p> <p>selecting (1) 11:9</p> <p>selection (1) 13:16</p> <p>selfclosing (2) 64:2 68:7</p> <p>selfcorrective (1) 37:12</p> <p>selfevident (1) 51:13</p> <p>selfexamination (1) 65:17</p> <p>sell (1) 43:2</p> <p>selling (1) 71:5</p> <p>sending (1) 13:10</p> <p>senior (1) 78:5</p> <p>sense (1) 33:12</p> <p>sensible (1) 26:13</p> <p>sent (1) 13:10</p> <p>separate (1) 71:4</p> <p>september (9) 12:15 15:12 16:2,24 17:14,18 19:1 44:24 67:4</p>
--	---	--	--	--	---	--

sequence (2) 9:19 36:15	smoke (8) 6:8 41:9 43:9,12 53:16 64:14 74:24 78:8	striking (1) 32:14	targets (1) 54:7	tim (1) 79:13	uk (5) 40:3,15,17 43:4 62:6	victim (2) 58:10,10
serious (1) 63:5	socalled (1) 66:20	strong (1) 33:11	task (7) 31:23,23 33:20 36:8 79:21 81:8 82:6	time (21) 1:20 2:11,13 9:18 10:22,23 11:6 12:18 19:7,23 20:7 22:6 46:9 48:7,15 57:15,15 76:12 78:17 80:20 81:4	ukas (1) 71:23	victims (2) 33:8,19
seriously (1) 17:2	social (2) 61:22 64:3	strongly (1) 21:20	tb4000 (1) 44:8	10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	uks (1) 71:7	vida (1) 79:16
seriousness (1) 47:14	society (1) 23:6	struck (1) 37:7	team (28) 2:19 7:12,19 8:4 10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	19:7,23 20:7 22:6 46:9 48:7,15 57:15,15 76:12 78:17 80:20 81:4	ultimate (1) 77:1	views (2) 2:22 3:24
served (1) 36:2	sold (1) 56:24	structural (1) 29:24	10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	timed (3) 37:5 57:10 58:15	unaided (1) 65:17	virtually (1) 6:13
service (3) 59:12 65:21 66:1	sole (1) 38:2	structure (1) 60:6	10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	tmo (26) 7:18 11:8,18 12:3 13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unavoidable (1) 81:11	visual (1) 4:19
services (1) 59:11	solely (1) 46:18	structured (1) 9:14	10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unaware (1) 16:11	vital (2) 72:5 80:14
set (7) 15:19 24:5 52:3 58:18 60:14 65:10 74:18	solicitor (1) 78:18	structures (1) 30:8	10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unclear (1) 64:19	vitality (2) 11:17 19:1
sets (1) 38:19	somebody (2) 21:23 37:8	struggle (1) 42:17	10:21,23 13:21,23 21:14 32:19 41:2 49:19 52:17 53:6,24 58:16 63:11 67:17 68:25 78:14,15,19 79:18 80:3,4,5,15 82:3	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unconstrained (1) 35:16	volume (1) 68:2
setting (2) 9:22 58:13	someone (2) 52:8 60:21	studio (24) 8:12,14,16,20 10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	uncontentious (1) 77:2	voluntarily (1) 35:8
settled (1) 19:5	something (1) 37:7	subcontractor (4) 44:7 49:21 52:8 58:4	41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	uncover (1) 19:18	
several (1) 71:3	soon (1) 82:12	subcontractors (1) 57:18	57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	underline (1) 16:15	
severe (1) 5:14	sorted (1) 8:24	subject (1) 78:10	67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	underlying (1) 18:24	waiting (1) 82:14
severely (1) 35:12	sought (11) 8:7,10 11:15 16:3 17:15 19:8,12 21:2 33:7 65:11 78:3	submit (3) 16:16 18:17,25 submitted (1) 25:10	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	undermine (1) 22:10	waldron (1) 78:20
shafi (1) 78:19	sound (1) 19:13	suborn (1) 54:14	57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	understand (8) 16:2 17:13 18:1 20:14 27:19,21 29:11 30:12	wall (13) 16:4 17:16 39:21 40:5,13 41:25 55:16 64:20 73:7,22 74:3 75:11,24
shall (2) 82:13,16	source (1) 5:2	successive (1) 30:11	67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	understanding (7) 7:15 28:5 41:3 43:21 58:12 77:23 81:7	walls (1) 76:23
shambles (1) 54:20	special (2) 76:14 80:11	sudden (2) 7:12 80:18	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unethical (1) 50:5	wants (1) 26:13
shanthi (1) 79:10	specialist (4) 49:21 52:6,10 60:9	suddenly (2) 14:9,15	57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unfabricated (1) 40:21	warnings (1) 78:6
shards (1) 30:23	specialists (1) 72:2	suffering (1) 26:2	67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unfair (1) 46:14	wasnt (11) 8:8 22:3 40:23 42:25 45:14 46:17 53:16 63:20 64:6,9 72:12
share (3) 10:25 50:7 51:5	specific (2) 8:6 32:1	sufficiently (2) 30:4 51:2	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unfit (1) 25:10	waugh (1) 78:21
shared (2) 37:15 69:14	specifically (5) 10:10 38:12 43:3 56:10 60:2	suggest (21) 4:7,10,24 5:24 7:25 10:18 12:11 14:14 15:7,14 17:7 18:12 19:16,20 21:1,8,10,20,25 22:11,17	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unfortunate (2) 31:11 74:2 unfortunately (1) 1:13	way (29) 2:21 5:4 10:4 14:20 15:4 19:11 20:12 22:9 26:1 27:4,21 35:3 38:4 45:21 46:9 48:14 53:8 54:12 59:13 60:13 65:9,11,13 66:2 67:24 70:8 73:7 81:25 82:10
shares (1) 25:20	specification (3) 44:10 52:9 63:22	suggestion (3) 10:10 12:20 14:15	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	university (1) 4:23	ways (2) 15:9 69:4
shift (1) 22:19	specifications (1) 19:8	suggest (21) 4:7,10,24 5:24 7:25 10:18 12:11 14:14 15:7,14 17:7 18:12 19:16,20 21:1,8,10,20,25 22:11,17	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unknown (1) 28:10	weak (3) 29:1 54:14 70:13
ship (1) 69:20	spectacularly (1) 51:14	suggest (21) 4:7,10,24 5:24 7:25 10:18 12:11 14:14 15:7,14 17:7 18:12 19:16,20 21:1,8,10,20,25 22:11,17	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unlearned (1) 55:12	weakness (3) 9:5 29:4 72:9
shirk (1) 5:10	spectrum (1) 35:25	suggestion (3) 10:10 12:20 14:15	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unless (1) 73:18	weaknesses (2) 60:1 67:1
shocking (2) 5:25 6:3	speculative (1) 36:13	suggestions (1) 16:20	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unlucky (4) 5:3 7:2,5 53:20	web (2) 38:3 77:15
short (4) 3:9 11:4 26:21 80:20	speed (2) 38:21 46:19	suitable (3) 39:3,11 56:11	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unmentioned (2) 18:16	webb (1) 46:21
shortcut (1) 70:2	spiders (1) 38:3	suitably (1) 72:25	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unnessary (1) 19:18	week (4) 32:2 46:22 59:5 65:23
shorttermism (1) 30:5	spread (19) 5:3 6:8,18 38:11 39:25 42:21,25 43:7,12 44:11,23 46:19,21 47:9 49:3 55:4,13 67:10 78:8	sullivan (1) 79:9	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unorthodox (1) 39:8	weeks (1) 55:8
should (31) 10:11,25 12:19,22 13:3 14:17,18 17:24 18:17 19:25 20:4 21:3 22:14 27:4 31:1 35:15,18 36:17 41:16 43:3 45:1 56:22 57:16,17 59:16 65:24 68:13 69:7 74:6 80:17 81:10	staff (1) 65:10	summary (1) 15:18	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unqualified (1) 65:20	weigh (3) 48:25 59:15 70:3
shoulders (1) 31:13	stage (7) 12:24 14:24 15:23 63:24 65:22 74:14 81:22	superb (1) 78:23	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unreasonably (1) 64:9	weighing (1) 8:19
show (3) 48:21 55:18 77:12	stance (1) 33:19	supervision (1) 4:23	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unreserved (1) 71:13	weight (1) 17:8
showed (1) 64:5	stand (1) 1:10	supply (1) 39:10	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unreservedly (1) 24:24	welcome (3) 1:3 66:4 82:24
shown (1) 25:9	standard (4) 58:13 62:16,19 71:23	support (6) 18:14 25:18,23 78:22 80:16,21	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unsafe (2) 50:3,22	welfare (1) 69:6
shows (2) 33:19 64:9	standards (6) 30:1 35:4 58:18,21 64:17 67:22	surrounding (1) 18:13	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unscrupulous (2) 54:12 71:21	went (1) 25:21
shuffle (1) 78:3	standardsetting (1) 71:19	surrounds (1) 39:8	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unstaking (1) 79:17	west (1) 27:15
side (1) 38:25	standing (2) 4:18 7:1	survey (1) 62:9	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	until (5) 8:15 12:12 34:3 47:7 66:23	weve (1) 82:23
siderise (1) 77:19	stands (1) 10:18	survivors (5) 24:11 26:2 31:8 80:6 81:9	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,20	13:14,15 29:8 43:13 57:15 58:19 61:7,8,21 62:5 64:6,9,12,17,22,24 65:1,17 67:19,24 68:8 69:1	unverified (1) 37:4	whenever (3) 4:9 8:18 22:4
sighted (1) 68:3	start (9) 2:14 3:16 13:22 27:3 30:21 37:19 38:7,14	sure (6) 23:6 25:5 39:10 72:19 77:8,22	10:13 12:24 13:15 14:8 41:18 43:19 44:1 52:10 57:24 58:11 59:3,4 63:13 67:3,17 69:1 74:20,20 75:6,			

working (2) 24:20 33:1
works (2) 44:21 52:11
world (2) 27:19 75:16
worn (1) 32:2
worse (1) 61:22
worth (1) 2:22
wouldnt (1) 24:2
wright (1) 77:20
writing (2) 2:25 16:20
written (5) 14:9 21:13 47:22
71:10 77:7
wrong (4) 25:22 40:19
44:20,23

Y

year (3) 24:1 64:5 80:18
years (6) 5:22 40:3 46:13
48:15 54:5 81:1
yesterday (2) 66:2 73:4
yielded (1) 42:14
youll (1) 55:25
youre (3) 1:14,22 15:10
yourself (2) 71:1 73:16
yourselves (1) 65:16
youve (1) 10:9

Z

zinat (1) 79:15
zinc (2) 6:20 63:23

0

0 (19) 40:12,13,15 45:7
50:18 51:13,15,22
54:21,24 55:15 59:23
62:20 70:5,22 72:14
75:3,25 76:2
0s (2) 62:18 66:16

1

1 (10) 14:22,24 25:20 27:13
38:9 59:8 67:14 77:3 78:11
84:3
10 (2) 1:1 24:1
1000 (1) 1:2
1041 (1) 26:20
1055 (3) 26:17,19,22
12 (1) 41:18
1220 (1) 83:3
125429 (2) 27:9,20
127 (13) 40:8 45:8 48:9 55:8
67:7 72:23 73:7,9,11,12,18
74:1 75:15
135 (6) 48:20 55:17 70:6
74:17,18 76:20
14 (9) 4:21 15:12 24:10
25:25 27:9,20 28:18 68:24
69:11
16 (3) 27:12 38:16 44:12
17 (1) 67:4
17056 (1) 71:23
18 (17) 16:2,24 17:14,18
19:1 40:4 48:5,16,19 50:15
52:24 53:1 56:8,12 72:24
76:1,23
1990s (1) 70:7
1991 (1) 66:15
1994 (1) 66:20
1999 (2) 51:16 54:24

2

2 (10) 15:2 25:20 27:18 28:9
40:10 45:10 47:8 55:21
56:18 79:7
2000 (3) 55:2,3 66:20
2001 (7) 47:3 51:8,15 55:2,5
62:23 66:22
2002 (1) 66:21
2004 (2) 42:13 43:14
2005 (2) 34:17 49:9
2006 (1) 55:8
2008 (5) 50:8 57:4,5 72:11
74:13
2009 (1) 50:9

2010 (1) 72:20
2012 (3) 12:12,15 71:24
2013 (5) 12:15,25 43:6 57:11
64:1
2014 (18) 16:2,24 17:14 19:2
40:10 41:18 43:5 44:24
45:10 46:3 53:19 55:21,23
56:18 57:1 67:4,14 73:25
2015 (5) 20:22 41:20 44:24
74:16 76:7
2016 (3) 50:12 55:24 76:8
2017 (9) 4:21 24:10 25:25
27:9,20 28:18 66:16 68:24
69:11
2018 (1) 81:1
2021 (2) 15:12 25:7
2022 (2) 1:1 25:8
21 (1) 34:16
22 (1) 34:21
23 (1) 84:4
25 (1) 61:19
27 (2) 74:13 84:6

3

3 (2) 57:1 71:10
30 (1) 3:2
312 (2) 32:3 81:3
314 (2) 20:2 57:9

4

40 (2) 54:21 76:13
400 (1) 81:1
43 (1) 63:2
4th (1) 27:13

5

5 (1) 78:11
55 (11) 40:18 50:18,20 52:14
57:2,4,21 62:13 65:25
72:11 76:10
5b (2) 42:13 76:5

6

6 (3) 77:7,11 78:11
65 (2) 75:10,23

7

7 (1) 55:25
71 (1) 27:16

8

8 (1) 81:20
81 (1) 84:8
8414 (3) 47:1 70:6 76:20

9

9 (1) 70:7
9441 (1) 17:12
999 (1) 27:10