

# OPUS2

Grenfell Tower Inquiry

Day 104

March 10, 2021

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1 Wednesday, 10 March 2021  
 2 (10.00 am)  
 3 SIR MARTIN MOORE–BICK: Good morning, everyone. Welcome to  
 4 today’s hearing. As usual, I’m joined by my fellow  
 5 panel members, Ms Istephan and Mr Akbor.  
 6 MS ISTEPHAN: Good morning.  
 7 MR AKBOR: Good morning.  
 8 SIR MARTIN MOORE–BICK: Before we begin today’s evidence,  
 9 perhaps I should just say something briefly about what  
 10 happened at the end of the afternoon yesterday.  
 11 I apologise for the fact that unfortunately we lost  
 12 the live stream connectivity, right at the end of the  
 13 afternoon. I understand from the technical support  
 14 people that their broadband connection was lost at that  
 15 point somewhere outside their building. It was  
 16 therefore something over which neither they nor we  
 17 obviously had any control.  
 18 A lot of efforts were made to re-establish the  
 19 connection, but unfortunately it couldn’t be done within  
 20 a reasonable time. No other facilities were lost, and  
 21 therefore communications with the Inquiry’s counsel were  
 22 maintained as normal.  
 23 Because there was only one additional question which  
 24 counsel needed to put to the witness, we decided that we  
 25 would put the question and have his answer recorded in

1

1 the usual way, and that recording should be added to the  
 2 rest of the hearing record for yesterday. So nothing  
 3 has been lost. That’s what we did, and as far as I’m  
 4 aware, that is now available to anyone who wishes to  
 5 view it.  
 6 But I’m sorry about that. As you can tell, it was  
 7 something completely outside our control or that of our  
 8 technical support team.  
 9 Having explained that, we can now move to meet  
 10 today’s witness, who is Mr Christopher Ibbotson of  
 11 Panel Systems.  
 12 I’m going to check first that Mr Ibbotson is there  
 13 and can hear and see me.  
 14 MR CHRISTOPHER IBBOTSON (called)  
 15 SIR MARTIN MOORE–BICK: Good morning, Mr Ibbotson, are you  
 16 there?  
 17 THE WITNESS: Yes, good morning.  
 18 SIR MARTIN MOORE–BICK: Good morning.  
 19 You should have on the screen in front of you a copy  
 20 of the affirmation which I understand that you’re  
 21 willing to make. Is that right?  
 22 THE WITNESS: I do.  
 23 SIR MARTIN MOORE–BICK: Very good. Could I ask you then to  
 24 make the affirmation by reading the words on the screen.  
 25 (Witness affirmed)

2

1 SIR MARTIN MOORE–BICK: Thank you very much.  
 2 Before we go any further, there are one or two  
 3 matters that we need just to check on.  
 4 First of all, can I ask you to confirm, please, that  
 5 you’re alone in the room from which you’re giving  
 6 evidence?  
 7 THE WITNESS: Yes, I am.  
 8 SIR MARTIN MOORE–BICK: Thank you.  
 9 Can you confirm that you have no documents or other  
 10 materials with you?  
 11 THE WITNESS: Yes.  
 12 SIR MARTIN MOORE–BICK: And can you confirm that your mobile  
 13 phone is in another room and that you don’t have any  
 14 other electronic device in the room with you which is  
 15 capable of receiving messages?  
 16 THE WITNESS: Yes.  
 17 SIR MARTIN MOORE–BICK: Very good, thank you very much.  
 18 Now, then, just for your information, you may like  
 19 to know that your legal representatives are with us in  
 20 the virtual hearing room, in the sense that they can see  
 21 and hear what is going on. It is possible for them to  
 22 intervene if they consider it essential to do so, but we  
 23 have other arrangements for them to contact our counsel,  
 24 so I ask them to keep their microphones and cameras  
 25 switched off to avoid any technical difficulties .

3

1 I hope we shan’t have any technical difficulties  
 2 today — you can never be quite sure, but I hope we  
 3 shan’t — but if we do, we’ll take a short break while  
 4 they’re ironed out by the technical team.  
 5 We shall have a break during the morning round about  
 6 11.15, but if you need any additional break at any time,  
 7 will you just indicate that and we’ll do our best to  
 8 accommodate you. All right?  
 9 THE WITNESS: Okay.  
 10 SIR MARTIN MOORE–BICK: Is there anything that you would  
 11 like to ask me or raise before we start taking your  
 12 evidence?  
 13 THE WITNESS: No.  
 14 SIR MARTIN MOORE–BICK: Right, thank you very much.  
 15 In that case, I’m going to invite Ms Drage to put  
 16 questions to you.  
 17 Yes, Ms Drage, when you’re ready.  
 18 Questions from COUNSEL TO THE INQUIRY  
 19 MS DRAGE: Thank you, Mr Chairman, and members of the panel.  
 20 Mr Ibbotson, good morning and thank you for  
 21 attending the Inquiry. It’s very much appreciated.  
 22 Can I confirm first that you can see and hear me?  
 23 A. Yes.  
 24 Q. If you have any difficulty understanding anything I’m  
 25 asking you in the course of the questions, then please

4

1 do ask me to repeat the question or put it in  
 2 a different way.  
 3 If you feel you need a break at any time, then  
 4 please do let us know.  
 5 Can you try and keep your voice up so that the  
 6 transcribers who are recording your evidence can hear  
 7 you, and also please don't just nod or shake your head  
 8 as that doesn't get recorded on the transcript.  
 9 You have made a witness statement for the Inquiry.  
 10 I want to take you to that first. If we could please go  
 11 to {PAN00000020}. This is your witness statement, and  
 12 if we can go on and look at page 7, please --  
 13 A. Yes.  
 14 Q. -- we can see it is dated 6 August 2019. Is that your  
 15 signature?  
 16 A. Yes.  
 17 Q. Have you read this statement recently?  
 18 A. Yes.  
 19 Q. Can you confirm that the contents of this statement are  
 20 true?  
 21 A. Yes.  
 22 Q. You also gave a statement to the Metropolitan Police.  
 23 If we can go to that, please, at {MET00040321}. Looking  
 24 on that first page we can see that it is dated 22 August  
 25 2017. Is that your electronic signature?

5

1 A. I can't see any signature on there.  
 2 Q. In the box it says, "Signature: C M Ibbotson".  
 3 A. Right, yes.  
 4 Q. Have you read this statement recently?  
 5 A. No.  
 6 Q. Right. Can you confirm that the contents of that  
 7 statement are true?  
 8 A. Yes.  
 9 Q. Have you discussed the contents of these statements or  
 10 the evidence that you are going to give to the Inquiry  
 11 with anyone before coming here today?  
 12 A. Other than counsel, no.  
 13 Q. Thank you.  
 14 I'm going to start by asking you some questions  
 15 about your background and experience and qualifications.  
 16 I'm then going to ask you some questions about training  
 17 of employees at Panel Systems and the way in which  
 18 Panel Systems products were sold and marketed. Finally,  
 19 I'm going to turn to some questions about the selection  
 20 of products for use in the Grenfell Tower refurbishment.  
 21 Now, between 2015 and 2017, you were the managing  
 22 director and owner of Panel Systems; is that correct?  
 23 A. Yes.  
 24 Q. It's correct that in 2015, Panel Systems was  
 25 a manufacturer and supplier of composite panels to

6

1 a range of industries, including the construction and  
 2 off-site fabrication industry; is that right?  
 3 A. Yes.  
 4 Q. Can we please turn to {BLAS0000004/35}. This is the  
 5 Phase 1 report of Dr Barbara Lane. It will be coming up  
 6 in just a moment. I'm going to ask you some more  
 7 detailed questions about the products that were used in  
 8 the Grenfell Tower refurbishment later on, but I just  
 9 want us to get our bearings first.  
 10 If we can look at that figure, figure 4.22, we can  
 11 see from the figure title that this is a photograph of  
 12 the refurbished Grenfell Tower. The window arrangement  
 13 has been highlighted by Dr Lane and the components  
 14 annotated.  
 15 Starting at the top of that photograph, we can see  
 16 that Dr Lane has identified the kitchen window insert  
 17 insulating core panels. Those are identified by  
 18 a yellow outline and yellow hatching on each level.  
 19 These were the window infill panels that housed the  
 20 kitchen window extract fan and they are white in colour.  
 21 Those panels were manufactured and supplied by  
 22 Panel Systems; is that correct?  
 23 A. I can't -- I have never seen the drawing. I guess we  
 24 did supply them, but I can't specifically say where on  
 25 the building they went.

7

1 Q. I understand, thank you.  
 2 We can see that Dr Lane has identified the new  
 3 window frames, which are outlined in blue, and the  
 4 glazing, which is outlined in red with red hatching.  
 5 Dr Lane has then identified, in the line at the  
 6 bottom of the photograph, insulating core panels, and  
 7 she has identified those panels by pink outline and pink  
 8 hatching. These infill panels were fitted between the  
 9 glazed panels, and again identifiable by their white  
 10 colour. Those panels were manufactured and supplied by  
 11 Panel Systems; is that correct?  
 12 A. Again, I can only confirm that we supplied the panels.  
 13 I have no idea where they went on the building other  
 14 than what I'm being told here, but I don't doubt that  
 15 that is correct.  
 16 Q. Am I right that Panel Systems is able to manufacture  
 17 composite panels with a range of materials?  
 18 A. Yes.  
 19 Q. It offers, for example, metal, plastic, fibreglass and  
 20 timber facing options.  
 21 A. Yes.  
 22 Q. And various core materials, such as phenolic foam,  
 23 mineral wool, extruded polystyrene, Styrofoam,  
 24 for example.  
 25 A. Yes.

8

1 Q. So that we have an idea, is it correct that typically  
 2 the core material is bonded to the facing material using  
 3 a form of adhesive?  
 4 A. Yes.  
 5 Q. In 2015, what did your role as owner and managing  
 6 director of the company involve?  
 7 A. The strategic direction of the business. I was actively  
 8 involved in growing the business. I wasn't involved in  
 9 day-to-day sales decisions, but it's my business and  
 10 therefore it's my responsibility.  
 11 Q. Did you at the time have any training or education in  
 12 respect of the fire performance of materials?  
 13 A. No.  
 14 Q. How big was the company in 2015?  
 15 A. Measured in what terms?  
 16 Q. Number of employees, for example.  
 17 A. 72.  
 18 Q. And were they all operating from one central office?  
 19 A. No, it's spread across three sites.  
 20 Q. And where were those sites?  
 21 A. They were all within the Sheffield postal region.  
 22 Q. I see, thank you.  
 23 In respect of your construction industry customers,  
 24 would you or any Panel Systems employees ever undertake  
 25 site visits?

1 A. Yes, if invited, yes.  
 2 Q. In what sort of circumstances would you be invited?  
 3 A. Could be various. Somebody wants us to look at a job,  
 4 somebody wants to query a delivery, somebody's following  
 5 up on a delivery.  
 6 Q. I see.  
 7 In 2015, was Panel Systems registered with any  
 8 regulatory body?  
 9 A. We were ISO registered, Investors in People registered,  
 10 FSC registered.  
 11 Q. I see.  
 12 I'm going to ask you some questions now about the  
 13 training provided to Panel Systems employees in 2015.  
 14 Can we please bring up document {PAN00000029}. This  
 15 is the witness statement of Mr Roache, who was a product  
 16 manager at Panel Systems from August 2015.  
 17 Looking on page 1, at the very bottom of the page,  
 18 at question 3, he says — and we will need to go over  
 19 the page:  
 20 "Having started in August 2015, I had received the  
 21 following training ..."  
 22 If you can go over the page {PAN00000029/2}:  
 23 "a. The types of Products PSL manufacture.  
 24 "b. A brief insight into the manufacturing  
 25 capabilities of PSL.

1 "c. I was taught about the terminology in panel  
 2 manufacture (eg, rebate, raked and u values).  
 3 "d. I was given an overview of the three  
 4 manufacturing Divisions."  
 5 Is that an accurate summary, to the best of your  
 6 knowledge, of the training a product manager would have  
 7 received in 2015?  
 8 A. Yes, given somebody that had only been with the company  
 9 one month, I think that would cover the training that  
 10 he's had in his first month of employment, yes.  
 11 Q. I see. Would there be subsequent training?  
 12 A. Yes.  
 13 Q. What sort of training would that be?  
 14 A. Well, he'd be working alongside the sales manager, he  
 15 would go out on visits to site to customers with the  
 16 sales manager, he might visit manufacturers to get  
 17 training there. It would evolve over a period of time.  
 18 Q. Thank you.  
 19 If we can turn to {PAN00000028/5}, this is the  
 20 witness statement of Ms Harrison to the Inquiry, and she  
 21 was a sales co-ordinator at Panel Systems in 2015.  
 22 A. Yes.  
 23 Q. If we could have a look on page 2 {PAN00000028/2},  
 24 please. Looking in answer to question 3, she says:  
 25 "Training was provided by my team leader and other

1 sales staff."  
 2 She goes on to say:  
 3 "I have also attended training sessions on products,  
 4 and this would include some knowledge of fire  
 5 performance of materials but not fire safety."  
 6 Is it correct, then, that some technical training  
 7 was provided to Panel Systems sales co-ordinators and  
 8 product managers in 2015, in terms of the fire  
 9 performance of the products manufactured and supplied by  
 10 Panel Systems?  
 11 A. Yes, and prior to 2015, fire training, fire performance  
 12 and materials is something that people have learned over  
 13 the years that have worked for the company. It didn't  
 14 kick in in 2015.  
 15 Q. No, you're saying they were trained prior to 2015?  
 16 A. Yes.  
 17 Q. For the avoidance of doubt, I'm just trying to  
 18 understand the picture as it was in 2015.  
 19 A. Yes. As Ms Harrison's put there, she would have had  
 20 an understanding of the fire performance of specific  
 21 materials.  
 22 Q. Very good, thank you.  
 23 Would these employees — so sales co-ordinators and  
 24 product managers — be trained in respect of which  
 25 products Panel Systems considered to be class 0 fire

1 rated?  
 2 A. They would be aware of what products were independently  
 3 tested to class 0, yes.  
 4 Q. Is it right that training was not provided in respect of  
 5 the compliance of Panel Systems' products with the  
 6 Building Regulations?  
 7 A. No.  
 8 Q. Or the practical guidance contained in Approved  
 9 Document B?  
 10 A. We manufacture insulating panels. We don't manufacture  
 11 panels that in themselves are fire rated. They're not  
 12 independently tested.  
 13 Q. Indeed. I'm going to ask you some questions about that  
 14 in just a moment.  
 15 Just in terms of training alone, would these  
 16 employees, sales co-ordinators and product managers, be  
 17 trained about what class 0 or class 1 surface spread of  
 18 flame actually means?  
 19 A. Yes, I think they would be aware of the tests that  
 20 applied to achieve class 1 and to the test that achieved  
 21 class 0, but it would be unfair to say that they,  
 22 you know, would have a detailed knowledge of the BS 476  
 23 test.  
 24 Q. Who provided that technical training?  
 25 A. The sales -- the senior salespeople, the sales manager

13

1 and occasionally manufacturers of the individual  
 2 materials.  
 3 Q. Would manufacturers ever be invited to come to  
 4 Panel Systems to provide technical training to --  
 5 A. Yes.  
 6 Q. I see.  
 7 Can we please turn to your witness statement at  
 8 page 5, that's {PAN00000020/5}. Looking at the very top  
 9 of page -- and you picked up on this earlier just now in  
 10 your evidence -- you say:  
 11 "The fire performance of the panel is governed by  
 12 the fire performance of the panel core. PSL would use  
 13 the fire performance as stated by the panel core  
 14 manufacturer."  
 15 Is it fair to say, then, that the technical training  
 16 in respect of the fire performance of the materials  
 17 manufactured and supplied by Panel Systems was directed  
 18 at the passing of information about the fire rating of  
 19 the products as identified by the manufacturer on to,  
 20 for example, sales co-ordinators and product managers?  
 21 A. Yes, in simple terms, yes.  
 22 Q. Has the technical training provided by Panel Systems to  
 23 its employees changed since 2015?  
 24 A. Yes. I mean, I think as I say later in the statement,  
 25 we've undertaken action on our own testing of panels, as

14

1 against using that fire performance as given by,  
 2 you know, the manufacturer of the core material.  
 3 Q. And are employees now trained in respect of that  
 4 testing?  
 5 A. I'm not sure what you mean by trained. They understand  
 6 that a panel has passed a certain fire test, and clearly  
 7 the more experienced understand the finer detail of that  
 8 fire test, but I wouldn't say that they all know  
 9 precisely the full detail of individual fire tests, no.  
 10 Q. Thank you, I see.  
 11 Can we turn to your next statement, please. That's  
 12 at {MET00040321/2}. You say there, in the first  
 13 substantive paragraph down, the second line:  
 14 "Our approach with a customer is driven by their  
 15 requirements and we will work closely with some on  
 16 projects and in other cases the relationship will be at  
 17 'arm's length'. Thus we can in some cases assist in the  
 18 design of a product/panel and others we will simply  
 19 respond to a pricing enquiry."  
 20 Can you see that there?  
 21 A. Yes.  
 22 Q. So when a customer approaches Panel Systems for the  
 23 manufacture and supply of a composite panel,  
 24 Panel Systems may be simply responding to a pricing  
 25 enquiry; is that right?

15

1 A. Yes.  
 2 Q. Or it may provide some design advice in respect of the  
 3 panels?  
 4 A. Again, it depends who's asking the question.  
 5 Q. Indeed.  
 6 If we could have a look at the very bottom of page 1  
 7 {MET00040321/1}, and we will need to look over the page,  
 8 at the very final sentence:  
 9 "The composite panel will combine properties of the  
 10 materials to produce a panel able to meet a combination  
 11 of performance criteria, e.g. insulation, strength,  
 12 aesthetic, fire and impact."  
 13 So by design of a product, then, do you mean that  
 14 Panel Systems might advise the customer on the  
 15 composition of the panel required to meet the customer's  
 16 performance criteria?  
 17 A. Yes.  
 18 Q. If asked?  
 19 A. If asked.  
 20 Q. Can I then take you back to your witness statement to  
 21 the Inquiry, that's at {PAN00000020/3}, at the bottom of  
 22 the page, at paragraph 5, paragraph 2.2 of  
 23 Panel Systems' position statement to the Inquiry is  
 24 quoted, and it is recorded:  
 25 "There are several basic queries in terms of

16

1 the fire performance of panels that may form part of  
 2 designing the panel composition. These may include: –  
 3 a) Class 1 Surface Spread of Flame b) Class '0' to  
 4 Building Regulations c) Non–Combustible Core.”  
 5 So are you confirming here that some of the basic  
 6 design queries in respect of fire performance would be  
 7 whether the customer requires a class 1 or class 0  
 8 product or a product with a non–combustible core; is  
 9 that correct?  
 10 A. Yes.  
 11 Q. If we could turn to {PAN00000003}, this is marketing  
 12 literature produced by Panel Systems dated October 2014  
 13 in respect of its composite panels, and I appreciate  
 14 that this literature pre–dates Harley’s first order,  
 15 which we will come to later.  
 16 If we could please look on page 4 {PAN00000003/4},  
 17 there is a subheading, "Technical specifications".  
 18 If a customer contacted Panel Systems wanting advice  
 19 in respect of the design of a panel, would a sales  
 20 co–ordinator or a product manager be expected to look at  
 21 these boxes to assist in the selection of the correct  
 22 core material to meet a particular customer’s  
 23 performance requirements needs?  
 24 A. Possibly. Again, it depends very much on the type of  
 25 questions that are being asked.

17

1 Q. Okay. So looking at that second box down, "Composite  
 2 panel insulation core selection data table" –  
 3 A. Yes.  
 4 Q. – and the penultimate line, "Reaction to fire  
 5 (DIN 4102)", would a sales co–ordinator or a product  
 6 manager have sufficient knowledge and training to be  
 7 able to advise, for example, as to whether a particular  
 8 application required an A1 or B2 rated product?  
 9 A. Well, you’ve changed the question. You’re now saying  
 10 whether the application requires that. What we’re  
 11 talking about here is the panel itself. If asked, if  
 12 somebody wanted a panel that is class 0, then we would  
 13 advise. Whether the building needed class 0 is not  
 14 a decision for my sales team.  
 15 Q. I see. So you mentioned class 0; in that final line,  
 16 "Class '0' to building regs?", we can see that all core  
 17 materials respond "no", save for the phenolic and  
 18 mineral fibre lamella core materials.  
 19 Given that it appears that both products are class 0  
 20 rated, if a customer telephoned and said, "Could we  
 21 please have a class 0 rated product", would a sales  
 22 co–ordinator or a product manager be able to advise as  
 23 to which core material, ie either the phenolic or the  
 24 mineral fibre material, was suitable?  
 25 A. Yes.

18

1 Q. By virtue of what knowledge or training would they be  
 2 able to give that advice?  
 3 A. Well, the table's to a certain extent the training, but  
 4 as I said earlier, individuals will have been taught and  
 5 been explained what each of these different core  
 6 materials are.  
 7 Q. I see. So if a customer said, "We need a class 0 rated  
 8 product", would one of these employees be able to draw  
 9 the distinction between the A1 and B2 rated products and  
 10 give that advice?  
 11 A. Yes, and if they weren't able, there would be senior  
 12 people in the sales office that would work with them on  
 13 that.  
 14 Q. Who would that be?  
 15 A. There's a senior salesperson, there's a product manager,  
 16 and there's a sales manager. They've all got different  
 17 knowledge, you know, with many years' experience.  
 18 Q. I see.  
 19 In 2015, were sales co–ordinators trained to  
 20 volunteer any information regarding the fire performance  
 21 of any of Panel Systems' products?  
 22 A. What do you mean by volunteer?  
 23 Q. Well, for example, was there any sort of compliance  
 24 checklist process in place that a sales co–ordinator  
 25 would go through when responding to a pricing enquiry?

19

1 A. Well, again, it depends very much on the pricing  
 2 enquiry. If the enquiry has come through with what we  
 3 would call a bill of materials and performance criteria  
 4 listed on there, the sales estimator would look at the  
 5 performance criteria and if they were able to answer the  
 6 questions then they would answer them. If they were not  
 7 qualified or didn't know the answer, they would seek  
 8 answers elsewhere within the company.  
 9 Q. Yes, I see.  
 10 Would they ask any questions about the intended  
 11 application of the products?  
 12 A. Possibly. It's very – there isn't a straightforward  
 13 answer to every enquiry that comes into the company.  
 14 They're all very, very different.  
 15 Q. If we could turn to {PAN00000017/2}. This is  
 16 Panel Systems' position statement to the Inquiry. At  
 17 paragraph 2.4, it is recorded:  
 18 "Where fire performance is not stated we would offer  
 19 a panel with Styrofoam as the core."  
 20 Why was a panel with a Styrofoam core the default  
 21 offering in the absence of a customer's indication of  
 22 fire performance?  
 23 A. Because Styrofoam thermally is very efficient, it is  
 24 very good for a core material because it bonds very  
 25 well, its compression is very good, it's a closed cell

20

1 foam, it has lots of attributes as a thermally  
 2 insulating core.  
 3 Q. I see.  
 4 Was it Panel Systems' practice to notify their  
 5 customers of the fire performance of Styrofoam when  
 6 offering it as a default core material?  
 7 A. No.  
 8 Q. And why was that?  
 9 A. Well, Styrofoam has been around for 40 years. I have no  
 10 reason to doubt that the market is not aware of the  
 11 performance of Styrofoam, it's a polystyrene. There's  
 12 nothing -- you know, there's no -- there's Styrofoam  
 13 literature in the marketplace, it's a well known product  
 14 within the construction industry.  
 15 Q. Was it in 2015 Panel Systems' practice to notify their  
 16 customers that they should check the compliance of the  
 17 Styrofoam with the Building Regulations in their chosen  
 18 application if it was offered as the default core  
 19 material?  
 20 A. I would expect them to do that as a matter of course.  
 21 Q. I see, but it wasn't Panel Systems' practice to notify  
 22 their customers --  
 23 A. No.  
 24 Q. Thank you.  
 25 I'm now going to ask you some questions about how

1 Panel Systems' products were marketed.  
 2 If we could look at your witness statement to  
 3 the Inquiry, please, at {PAN00000020/6}, you say at  
 4 paragraph 8 -- and I'm summarising here -- that you were  
 5 not aware of the guidance given in Approved Document B  
 6 in respect of the necessary fire performance of  
 7 insulating products for buildings above 18 metres.  
 8 Does that mean that, in 2015, Panel Systems'  
 9 marketing materials similarly made no claim in respect  
 10 to their suitability for buildings with a storey of  
 11 above 18 metres?  
 12 A. I don't think 18 metres figures in any of our  
 13 literature .  
 14 Q. I see.  
 15 In 2015, did Panel Systems' marketing literature  
 16 advertise the fire rating of the various core materials  
 17 offered by Panel Systems?  
 18 A. No panel core was offered as being suitable for over  
 19 18 metres, because I think at the time we were not aware  
 20 of the 18-metre issue.  
 21 Q. I see, yes.  
 22 Can we turn back to your witness statement at  
 23 page 4, please. The reference is {PAN00000020/4}.  
 24 At the very top of the page, paragraph 2.1 of  
 25 Panel Systems' position statement is set out:

1 "PSL do not manufacture a panel that has been  
 2 subjected to any independent fire testing. The fire  
 3 performance of the panel will be based on the  
 4 performance of the individual elements of the panel."  
 5 If we could go to the bottom of the page at  
 6 paragraph 6(a), again Panel Systems' position statement  
 7 is set out, wherein the Aluglaze product is referred to  
 8 and described as an insulating composite panel designed  
 9 with a range of fire performances depending on the  
 10 choice of panel core.  
 11 You can see there at paragraph 6(a), "What 'range of  
 12 fire performance' can these panels be designed with?" is  
 13 asked, and over the page at page 5 {PAN00000020/5}, you  
 14 provide your answer, that:  
 15 "The fire performance of the panel is governed by  
 16 the fire performance of the panel core. PSL would use  
 17 the fire performance as stated by the panel core  
 18 manufacturer."  
 19 You explain that the panels could be supplied with  
 20 a polyisocyanurate core with a class 0 rating or with  
 21 a non-combustible core of lamella rock fibre.  
 22 My question is: in 2015, did Panel Systems market  
 23 an Aluglaze panel with a class 0 polyisocyanurate core?  
 24 A. Yes, there would have been a polyisocyanurate core that  
 25 in itself was rated according to the manufacturer of

1 that core as a class 0 material.  
 2 Q. Again, at that time, did Panel Systems market  
 3 an Aluglaze panel with a non-combustible lamella rock  
 4 fibre core?  
 5 A. Yes.  
 6 Q. Looking further down on page 5 at paragraph 7(a), you  
 7 explain the composition of the panels supplied by  
 8 Panel Systems as part of the Grenfell Tower  
 9 refurbishment. You explain that the majority of panels  
 10 had a Styrofoam core and an aluminium skin, but there  
 11 was a smaller supply of other panels with  
 12 a polyisocyanurate core and one with a plywood core.  
 13 At paragraph 7(b) you say that the panel would be  
 14 described to have a class 1 surface spread of flame as  
 15 a result of the aluminium skins.  
 16 If we could turn over to page 6 {PAN00000020/6},  
 17 please, at paragraph (d), towards the top of the page,  
 18 you confirm that the fire rating of the Styrofoam core  
 19 of the Aluglaze panels supplied to Grenfell Tower had  
 20 a Euroclass reaction to fire classification of class E.  
 21 Is it correct, then, that Panel Systems marketed the  
 22 products on the basis of the fire rating of the core  
 23 panel material?  
 24 A. Yes. Styrofoam, we -- the panel would be classed as  
 25 a panel with a core of class E.

1 Q. I see, and would it therefore be marketed in  
 2 Panel Systems' literature as a class E fire rated panel?  
 3 A. It would be marketed as a panel with a Styrofoam core  
 4 which is rated as class E.  
 5 Q. I see.  
 6 What role, if any, did the class 1 surface spread of  
 7 flame have in the way in which the Styrofoam-cored  
 8 product was marketed in the literature?  
 9 A. Very little .  
 10 Q. Can you explain what little relevance?  
 11 A. The aluminium in itself would have a class 1 surface  
 12 spread of flame.  
 13 Q. I see. So would the marketing material make clear that  
 14 the fire rating is dependent on the core material chosen  
 15 and not the facing material?  
 16 A. Yes.  
 17 Q. Right.  
 18 Did that marketing literature make clear that the  
 19 behaviour of the composite product in fire would differ  
 20 to the behaviour in fire of the core material?  
 21 A. No.  
 22 Q. Why was that?  
 23 A. The core is the — when it comes to insulation, that is  
 24 the main contributor to the insulation performance of  
 25 that panel.

25

1 Q. I see.  
 2 Could we turn back to your witness statement,  
 3 please, at page 7, that is {PAN00000020/7}. You touched  
 4 on this earlier in your evidence. You say here at the  
 5 very top of the page:  
 6 "We now add to all quotes relating to panels  
 7 intended for use in Construction industry irrespective  
 8 of building type or height where Styrofoam is  
 9 included ..."  
 10 Then you explain the class E rating, and that if the  
 11 customer requires a panel core with improved fire  
 12 performance, that they should contact the sales office  
 13 for advice.  
 14 So do you mean there that if a pricing enquiry is  
 15 required for Styrofoam and a quotation is sent out by  
 16 Panel Systems, that that wording would be added to the  
 17 quotation?  
 18 A. Yes.  
 19 Q. I see.  
 20 What about if a customer contacts Panel Systems for  
 21 design advice, as a result of which Styrofoam is  
 22 recommended: would the wording be added to the quotation  
 23 that is sent out then?  
 24 A. Any enquiry for a construction project where the quote  
 25 has Styrofoam — where the panel has Styrofoam as the

26

1 core, that phrase is added on to the quote.  
 2 Q. I see.  
 3 Is there a reason why you don't go further and say  
 4 that there might be restrictions imposed by the  
 5 Building Regulations as to how Styrofoam-cored products  
 6 are used?  
 7 A. We're not architects. We have no input to the design.  
 8 I've no — we wouldn't know all the details of the  
 9 construction project. We can only educate on a basis  
 10 of: we are quoting, in this case we've given you a price  
 11 for a Styrofoam panel, and we put that on. There isn't  
 12 much more that we could do. We're not architects.  
 13 We're not professional — we're not designers of  
 14 a building. We manufacture panels.  
 15 Q. I appreciate that, but is there a reason why you don't  
 16 add wording to the quotation to say, "Please check the  
 17 Building Regulations as there might be restrictions as  
 18 to the use of Styrofoam"?  
 19 A. Well, the architect must know that. That's not the role  
 20 of Panel Systems.  
 21 Q. I'm now going to take you through some documents in  
 22 respect of the supply of Panel Systems' products for use  
 23 in the Grenfell Tower refurbishment and confirm your  
 24 evidence on some of this.  
 25 It is right that there are two key periods of time:

27

1 the first is January to June 2015, when products were  
 2 supplied for use within the refurbishment at the request  
 3 of Harley Curtain Wall Limited; the second is from  
 4 August to October 2015, when products were supplied for  
 5 use at the request of Harley Façades Ltd.  
 6 So I want to start with the first period of time,  
 7 January to June 2015.  
 8 If we could please turn to {PAN00000012}, you will  
 9 see that this is a handwritten note dated  
 10 19 January 2015. About half of the way down the page,  
 11 it reads:  
 12 "Mark @ Harley Curtain Wall — enquiry."  
 13 Is it your understanding that this is a handwritten  
 14 note of Natalie Harrison, a sales co-ordinator at  
 15 Panel Systems?  
 16 A. Yes.  
 17 Q. And that it records an enquiry made by Mark Stapley of  
 18 Harley regarding the manufacture and supply of products?  
 19 A. Yes.  
 20 Q. Now, to the best of your knowledge, was this the first  
 21 contact made by Harley regarding the manufacture and  
 22 supply of products in respect of this particular  
 23 project?  
 24 A. Yes.  
 25 Q. Thank you.

28



1 If we could please turn up {PAN00000006}, we will  
 2 see that this is an email from Mr Stapley of Harley to  
 3 the generic Panel Systems email address of one of your  
 4 divisions, and it is dated the same day,  
 5 19 January 2015. He says:  
 6 "Hi Natalie,  
 7 "Further to our earlier telephone conversation,  
 8 please find attached our schedule of panels required for  
 9 Grenfell Tower."  
 10 And he then asks for pricing.  
 11 If we could go down to page 2 of that document  
 12 {PAN00000006/2}, we can see the handwritten schedule of  
 13 Mr Stapley there. We can see that he has requested  
 14 aluminium-faced spandrel panels with an overall  
 15 thickness of 28 millimetres. Do you see that there?  
 16 A. Yes, yes.  
 17 Q. The colour finish is set out, as well as the size of the  
 18 panels.  
 19 Am I right that the core material sought is not  
 20 specified, at least on this page that we can see of the  
 21 schedule? Is that right?  
 22 A. Yes, there is no core material mentioned there.  
 23 Q. Thank you, Mr Ibbotson.  
 24 I wonder if you could help me with this: we can see  
 25 under "Type 1" it reads:

29

1 "Colour finish — white RAL 9010 matt, both  
 2 internally & externally."  
 3 Could you help us, please, what would you interpret  
 4 that "internally & externally" to mean?  
 5 A. That's the inside face of the panel and the outside face  
 6 of the panel.  
 7 Q. Thank you, that's very helpful.  
 8 A. It would generally mean that the panel will be seen from  
 9 both sides, because somebody's paying for it to be  
 10 powder-coated, it will be visible externally and visible  
 11 internally.  
 12 Q. I see, thank you.  
 13 If we could turn then, please, to {HAR00009866}.  
 14 This is an email from Ms Harrison to Mr Stapley, also  
 15 dated 19 January 2015, and she attaches the quotation.  
 16 If we could please turn to that quotation, at  
 17 {HAR00009867}, we can see that the quotation is for  
 18 28-millimetre thick Aluglaze panels with an aluminium  
 19 skin and 25-millimetre Styrofoam core. Can you see that  
 20 there?  
 21 A. Yes.  
 22 Q. If we could now turn to Ms Harrison's witness statement,  
 23 that's at {PAN00000028/4}, please, if we could please  
 24 look at the very top of the page at paragraph (a),  
 25 Ms Harrison sets out:

30

1 "I quoted for a standard PSL 28mm glazing panel  
 2 which includes Styrofoam as the insulation. This was  
 3 fully detailed in my quote."  
 4 Now, is this an example of what you have described  
 5 in the position statement that we've looked at, that  
 6 where fire performance is not stated, Panel Systems  
 7 would offer a panel with Styrofoam as the core?  
 8 A. Yes.  
 9 Q. Is that because Mr Stapley did not specify, as far as  
 10 you can see, a core material in his enquiry?  
 11 A. Yes.  
 12 Q. Can we now please turn to {MET00040296/15}. This is  
 13 a purchase order sent by Mr Stapley to Ms Harrison the  
 14 following day, 20 January 2015, and it says under  
 15 "Item":  
 16 "Please supply aluminium faced insulated spandrel  
 17 panels, as per attached schedule and in accordance with  
 18 [your] quote ..."  
 19 A. Yes.  
 20 Q. To the best of your knowledge, did Mr Stapley query the  
 21 selection of Styrofoam as the core panel prior to  
 22 sending this purchase order?  
 23 A. No.  
 24 Q. And to the best of your knowledge, what about after the  
 25 purchase order was sent over?

31

1 A. No.  
 2 Q. On 10 February 2015 an invoice was raised by  
 3 Panel Systems to Harley Curtain Wall for 62 panels with  
 4 an aluminium skin and Styrofoam core. We don't need to  
 5 go to that, but for the transcript it's at  
 6 {MET00040281}.  
 7 On the same day, 10 February 2015, Panel Systems  
 8 generated a dispatch note for delivery of those panels  
 9 to CEP Architectural Façades on behalf of Harley.  
 10 Again, we don't need to turn to that, but for the  
 11 transcript it is at {MET00040279}.  
 12 Is it correct that a number of orders were placed in  
 13 this same way between February and June 2015, all for  
 14 aluminium skinned panels with a Styrofoam core?  
 15 A. Yes. They were scheduled deliveries, so they placed  
 16 batches of orders against that original quote and their  
 17 original order.  
 18 MS DRAGE: I see. Thank you.  
 19 SIR MARTIN MOORE-BICK: I'm sorry to interrupt.  
 20 Mr Ibbotson, you seem to have a little bit of  
 21 trouble with your light.  
 22 A. It keeps switching off.  
 23 SIR MARTIN MOORE-BICK: Would you like to take a moment to  
 24 solve it, if you can.  
 25 A. Well, I'm pressing a button but ... if it's battery

32

1 driven, the battery's gone.  
 2 (Pause)  
 3 SIR MARTIN MOORE-BICK: All right now? We will see how we  
 4 go, anyway.  
 5 A. Yes, okay.  
 6 SIR MARTIN MOORE-BICK: Yes, Ms Drage, carry on.  
 7 MS DRAGE: Thank you, Mr Chairman.  
 8 Can we please turn to your witness statement at  
 9 page 2, that's at {PAN0000020/2}. Looking at  
 10 paragraph (b), you were asked:  
 11 "Did Panel Systems provide any literature or  
 12 documentation on the products supplied? If so what  
 13 literature /documentation and when?"  
 14 You answered:  
 15 "No literature was requested. There was no  
 16 discussion over technical details over the telephone or  
 17 in writing. The quote detailed each element of the  
 18 panel."  
 19 So is it right that Harley never asked to see any  
 20 marketing material or specification details when --  
 21 A. Correct.  
 22 Q. -- placing this order? I'm sorry, Mr Ibbotson?  
 23 A. Yes, correct.  
 24 Q. And there was never any discussion between anyone at  
 25 Harley and anyone at Panel Systems, to the best of your

33

1 knowledge, regarding the technical details of the  
 2 panels?  
 3 A. Correct.  
 4 Q. Is that before the order in January 2015?  
 5 A. Before? Harley were not a regular customer. There was  
 6 no discussion before or during the supply, up until the  
 7 summer months.  
 8 Q. We will come to that period of time in just a moment.  
 9 Thank you for that, Mr Ibbotson.  
 10 At paragraph (c) on that same page, you were asked  
 11 whether Panel Systems provided any information about the  
 12 fabrication or installation of its products in respect  
 13 of Harley's order, and your answer is that Harley did  
 14 not ask for any information.  
 15 Is it correct, then, that Panel Systems, to the best  
 16 of your knowledge, were not aware of any of the  
 17 fabrication work that was intended?  
 18 A. No. We knew nothing in terms of what subsequent work  
 19 was undertaken on the panels.  
 20 Q. At paragraph (d), if we can just look a little further  
 21 down that page, you are asked what information  
 22 Panel Systems had about the proposed refurbishment of  
 23 Grenfell Tower, and your answer is:  
 24 "Panel Systems were not aware of any of the proposed  
 25 plans, designs or specification relating to

34

1 Grenfell Tower. There was no knowledge of the proposed  
 2 work or that it involved re-cladding the building."  
 3 Is that right?  
 4 A. Yes.  
 5 Q. You say at paragraph (e) that the only information  
 6 Harley provided was what was detailed in their enquiry;  
 7 is that right?  
 8 A. Yes.  
 9 Q. And you were not informed of the height of the building?  
 10 A. No.  
 11 Q. Or the proposed use of the panels?  
 12 A. No.  
 13 Q. And Harley never volunteered any information about the  
 14 nature of the project?  
 15 A. No.  
 16 Q. You were asked at paragraph (h), if we could go a little  
 17 further down the page {PAN0000020/3}, please, whether  
 18 Harley specified any fire performance criteria when  
 19 placing its order, and your answer is no; is that right?  
 20 A. Yes.  
 21 Q. Is it right that there was never any discussion about  
 22 the required fire performance of the panels between  
 23 Panel Systems and Harley?  
 24 A. Correct.  
 25 Q. To the best of your knowledge, did Harley ever ask for

35

1 any advice on the required fire performance of these  
 2 Styrofoam panels?  
 3 A. No.  
 4 Q. If we could then turn back to {HAR00009867}, this is the  
 5 quotation sent by Ms Harrison to Mr Stapley which we've  
 6 looked at previously. I just want to have a look in  
 7 a bit more detail.  
 8 You see there that the total net price is £38,132,  
 9 and the quantity of products totals 532 panels.  
 10 Would you have expected, given the volume of the  
 11 order, any further enquiries to have been made by your  
 12 sales team at this point as to the size of the building?  
 13 A. No. It's not a large order.  
 14 Q. So was this a typical order for Panel Systems at the  
 15 time in terms of volume?  
 16 A. Yes.  
 17 Q. And in terms of the core material requested?  
 18 A. Yes.  
 19 Q. What about the reference here to Grenfell Tower? Would  
 20 you have expected the reference to a tower to cause the  
 21 sales team to appreciate that these panels might be  
 22 intended for use in a high-rise building?  
 23 A. I don't think we would conclude that because it says  
 24 "Grenfell Tower" that it is itself -- that it is  
 25 a tower. There are lots of jobs that we've done --

36

1 well, we have done jobs in the past where the project  
 2 has included the word "tower" that haven't been  
 3 18 metres. I don't think we would look at that and  
 4 interpret it in any other way than that's just the name  
 5 of a building.  
 6 Q. I see.  
 7 I'm now going to move on to discuss that second  
 8 period of time that I referred to earlier, between  
 9 August and October 2015.  
 10 Can we turn to {HAR00020331}. This is an email from  
 11 Mr Ben Bailey of Harley again to the generic  
 12 Panel Systems email address dated 24 August 2015, and he  
 13 says:  
 14 "Please see schedule attached for pricing."  
 15 If we could have a look at that schedule, please, at  
 16 {HAR00020332}, we can see here that Mr Bailey is  
 17 requesting pricing for an aluminium-skinned panel with  
 18 a material core of Kingspan TP10 rigid insulation.  
 19 As far as you are aware, is this the first time that  
 20 Harley has requested a panel with a TP10 core?  
 21 A. Yes.  
 22 Q. Thank you.  
 23 We don't need to turn to it, but there was a request  
 24 made by Mr Roache of Mr Bailey to resize the panels in  
 25 the schedule and send a revised schedule over, which he

1 did.  
 2 If we can turn to that revised schedule at  
 3 {HAR00020332}, we can see that for each of the P2, P3  
 4 and P4 panel specs, an aluminium-skinned panel with  
 5 a Kingspan TP10 rigid insulation core has been  
 6 requested, and at panel spec P5 it is a ply core with  
 7 TP10.  
 8 Looking at now {HAR00018872}, we can see that on  
 9 27 August 2015 a quotation was provided in response to  
 10 the pricing enquiry for those P2 to P5 panels. If we  
 11 could just scroll down the page a little, the reference  
 12 there is to PIR. Can you see that there?  
 13 A. Yes, yes.  
 14 Q. Was this the Kingspan TP10 product?  
 15 A. I missed that, say that again.  
 16 Q. The reference there to PIR --  
 17 A. Yes.  
 18 Q. -- was this Kingspan TP10 rigid insulation product?  
 19 A. TP10 is a PIR with a very thin aluminium foil.  
 20 Unfortunately you can't bond to that reliably, so we  
 21 would buy the PIR material as the core and bond to that  
 22 the 1.5-mil aluminium.  
 23 Q. I see, okay.  
 24 If we can then turn to {MET00040312}, this is  
 25 an invoice raised on 8 October by Panel Systems to

1 Harley Façades Ltd for those P2 to P5 panels. So that  
 2 takes us to 8 October 2015.  
 3 Finally, if we can turn to {MET00040302}, we can see  
 4 the dispatch note for the order to Harley Façades Ltd  
 5 dated 8 October 2015. So this is 8 October 2015.  
 6 If we could also look at {MET00040286}, this is  
 7 a dispatch note generated by Panel Systems for delivery  
 8 of products to Harley Façades Ltd dated 21 October 2015,  
 9 and we can see there again it's for delivery of  
 10 aluminium-skinned panels with a core of PIR.  
 11 So is it correct that we have larger orders between  
 12 January and June 2015 for the Styrofoam-cored products?  
 13 Is that correct?  
 14 A. Yes.  
 15 Q. And then we have two smaller orders between September  
 16 and October 2015 for composite panels with a PIR core?  
 17 A. Yes.  
 18 Q. Could we please look at your witness statement at  
 19 page 5. That's {PAN00000020/5}, and looking at the top  
 20 of the page, three lines down, you say:  
 21 "There are a small [number] of panels supplied with  
 22 a polyisocyanurate core with a Class '0' rating as  
 23 requested by Harley ..."  
 24 Are you referring here to Harley's order for panels  
 25 that we've looked at with a Kingspan TP10 rigid

1 insulation core?  
 2 A. Yes.  
 3 Q. If we could then turn, please, to {KIN00011603}, we will  
 4 see that this is the product specification for Kingspan  
 5 Thermapitch TP10. Towards the bottom of the page, under  
 6 the subheading "Fire", it records:  
 7 "Kingspan Thermapitch TP10 and its rigid thermoset  
 8 insulation core, are Class 1, as defined by the  
 9 Building Regulations."  
 10 Were you aware at the time that TP10 was a class 1  
 11 rather than class 0 rated product?  
 12 A. Well, class 1 is a surface spread of flame rather  
 13 than -- you know, the class 0 rating is different. TP10  
 14 and PIR, we've -- I would have thought we would feel  
 15 that they are a class 0 core material. But TP10, we  
 16 can't bond to TP10, and that was replaced by a PIR-cored  
 17 material from Kingspan. I think it's probably us that's  
 18 assumed it's a class 0. They haven't asked for  
 19 a class 0, they've asked for TP10.  
 20 Q. I see. So Harley didn't actually request a class 0  
 21 rated --  
 22 A. No, they've merely asked us to bond to TP10, and we have  
 23 replaced the -- TP10 is a polyisocyanurate with  
 24 an aluminium foil, and we've replaced that with a PIR  
 25 with a rigid 1.5-mil or 2-mil aluminium skin.

1 Q. Do you remember what that product was, the brand of that  
 2 product? Was it a Kingspan —  
 3 A. It was probably a Kingspan PIR material.  
 4 Q. I see, but not TP10?  
 5 A. Not — TP10, as I say, is just PIR with a foil.  
 6 Q. I see. And was it your understanding at the time that  
 7 class 0 was not a rating for a surface spread of flame?  
 8 A. Yes, class 0 — if a product is class 0, it would by  
 9 definition also have a class 1 surface spread of flame.  
 10 Q. Right.  
 11 I wonder if you could help the Inquiry with the  
 12 following: could we please look at {HAR00003866}. This  
 13 is a material specification produced by Harley and it is  
 14 dated 15 January 2015. Have you seen this document  
 15 before?  
 16 A. No.  
 17 Q. I appreciate that, and I'm showing it to you now for  
 18 context and background only.  
 19 Ignoring the annotations in red ink for the moment,  
 20 in the left-hand column, in the fifth paragraph down, in  
 21 respect of glazing P1 panels, an aluminium-skinned panel  
 22 with a core of TP10 rigid insulation is specified. Do  
 23 you see that there?  
 24 A. Yes. Yes.  
 25 Q. Purely for your information, the P1 panel was the window

1 infill panel between the glazed panels.  
 2 In the paragraph underneath, beneath that, glazing  
 3 P2 panels, an aluminium-skinned panel with a TP10 rigid  
 4 insulation core is also specified. Do you see that  
 5 there?  
 6 A. Yes. Yes.  
 7 Q. And purely again for your information, P2 was the panel  
 8 that housed the kitchen extract fan.  
 9 Looking then again at the fifth paragraph down and  
 10 the annotation in red ink in respect of the P1 panel, it  
 11 has been written, "25mm Styrofoam". Do you see that  
 12 there?  
 13 A. Yes.  
 14 Q. In the paragraph below in respect of the P2 panels, the  
 15 annotation is, "As above"; do you see that there?  
 16 A. Yes.  
 17 Q. If we could then look at the document {HAR00003869},  
 18 this is a later version of the same Harley materials  
 19 specification document, and again, I appreciate that you  
 20 won't have seen this and I'm showing it to you only for  
 21 background and context.  
 22 This has been stamped by Studio E on  
 23 26 January 2015, and we can see that in respect of the  
 24 glazing P1 panels, the specification has been updated to  
 25 Styrofoam. Can you see that there?

1 A. Yes.  
 2 Q. But in respect of the P2 panels, the specification has  
 3 been left as TP10 rigid insulation.  
 4 A. Yes.  
 5 Q. If we could briefly look back at {HAR00020332}, we have  
 6 looked at this before but it's the pricing schedule  
 7 which accompanied Ben Bailey's email of 24 August 2015  
 8 to Panel Systems. We can see there that for all of the  
 9 panels, P2 to P5, the TP10 product has been requested,  
 10 albeit that the P5 also includes timber.  
 11 A. Yes.  
 12 Q. Can we then please turn to {BLAS000008/63}. This is  
 13 Dr Lane's Phase 1 report. I'm looking for figure 8.73.  
 14 Looking at figure 8.73 —  
 15 A. Yes.  
 16 Q. — it is "Window insert insulating core panel removed  
 17 from glazing system". This is the P2 panel that housed  
 18 the kitchen extract fan, and we can see the ventilation  
 19 opening there.  
 20 A. Yes.  
 21 Q. Dr Lane found, following her site inspections, that the  
 22 panels at P2 to house this extract fan had a Styrofoam  
 23 core rather than a PIR core.  
 24 Do you recognise this as an Aluglaze product from  
 25 the photograph?

1 A. Yes, although we have not put the cut-out in the panel.  
 2 Q. Yes, thank you.  
 3 Can you confirm, perhaps you can help us, that this  
 4 is a Styrofoam core rather than a PIR core?  
 5 A. Well, it is difficult from the photograph, but given the  
 6 evidence that you've presented earlier, I would see it  
 7 as a Styrofoam panel.  
 8 Q. Right. But you can't say from looking at the photograph  
 9 itself?  
 10 A. Well, I would expect it to be blue in colour, but  
 11 I think it's the quality of the photograph.  
 12 Q. Right, I see.  
 13 To the best of your knowledge, were the PIR panels  
 14 ordered by Harley actually delivered to site?  
 15 A. The last seven or eight panels were all delivered to  
 16 site, yes.  
 17 Q. Can I then take you to the transcript, please, at Day 8,  
 18 page 168, line 16. This is the evidence of  
 19 Mr Ben Bailey of Harley to the Inquiry, and he is being  
 20 asked questions about the composition of this panel P2  
 21 that housed the kitchen extract fan.  
 22 I think I have to just double check my transcript  
 23 reference on that. I shall come back to that very  
 24 shortly.  
 25 I just want to ask you now about a separate enquiry

1 that was made.  
 2 If we could please turn up {HAR00002852}. Looking  
 3 at the second email in the chain, this is an email from  
 4 Mr Roache of Panel Systems to Ben Bailey of Harley dated  
 5 4 September 2015, and Mr Roache says:  
 6 "Please find attached our quotation as per your  
 7 specification provided, along with a datasheet for the  
 8 core material proposed."  
 9 If we could turn to the quotation, please, at  
 10 {HAR00002852}.  
 11 (Pause)  
 12 The reference was {HAR00002852}.  
 13 SIR MARTIN MOORE–BICK: That's what we got.  
 14 MS DRAGE: Yes.  
 15 Let's try {HAR00018876}. This is a datasheet  
 16 attached to Mr Roache's email for the product  
 17 Euroform Products Ltd Versafire, and the product is  
 18 described as an A1 non–combustible board.  
 19 On page 2 {HAR00018876/2}, we can see in the bottom  
 20 section of that yellow box that the product has been  
 21 tested to BS 476–4 and rated non–combustible and tested  
 22 in accordance with BS EN ISO 1716:2002 and 1182:2002.  
 23 On page 3 {HAR00018876/3}, we can see that on the  
 24 right–hand side of the page, under the heading "Timber  
 25 Frame Partition Construction, Cavity Fill", that the

1 panel core is a 70–millimetre thick mineral wool. Can  
 2 you see that there?  
 3 A. Yes.  
 4 Q. If we could look back at your witness statement on  
 5 page 5, that's {PAN00000020/5}, you set out at  
 6 paragraph 7(a) that the panels supplied to  
 7 Grenfell Tower were 538 Styrofoam–cored panels,  
 8 19 polyisocyanurate–cored panels with two variations of  
 9 skin thickness, and one plywood–cored panel.  
 10 A. Yes.  
 11 Q. Are you able to confirm, then, that whilst Harley was  
 12 offered an A1 rated mineral wool product, they did not  
 13 in fact order any such product?  
 14 A. That enquiry, the product put forward is  
 15 non–combustible, but it provides no thermal properties.  
 16 In fact, that product was not ordered. We were quoted  
 17 it was a small number of panels and it went no further.  
 18 Harley did not pursue that enquiry.  
 19 MS DRAGE: Right. Thank you.  
 20 Mr Chairman, I have only probably five minutes'  
 21 worth of questions left for Mr Ibbotson. Perhaps I may  
 22 continue before we break?  
 23 SIR MARTIN MOORE–BICK: Yes.  
 24 Well, Mr Ibbotson, we would normally have a break  
 25 about now, but I think if there are only five minutes'

1 worth of questions, you might prefer to deal with them  
 2 straightaway, mightn't you?  
 3 THE WITNESS: Yes, please.  
 4 SIR MARTIN MOORE–BICK: Yes. So we will press on, please,  
 5 Ms Drage.  
 6 MS DRAGE: Thank you, Mr Chairman.  
 7 If we could turn to the transcript at {Day39/168}.  
 8 You will recall that I was asking you some questions  
 9 about the P2 panel that housed the kitchen extract fan  
 10 and its composition, whether it was a Styrofoam core or  
 11 a PIR core, and this is Mr Ben Bailey's evidence to  
 12 the Inquiry.  
 13 At line 16 he is asked by Counsel to the Inquiry:  
 14 "Question: Can you account for how it comes about  
 15 that the P2 panel contained a 25–millimetre layer of  
 16 styrofoam as opposed to the TP10 Kingspan as stipulated  
 17 or specified?  
 18 "Answer: I don't remember having any conversations  
 19 with Panel Systems about them changing it, so beyond  
 20 that, it would be guessing that they have changed it  
 21 themselves."  
 22 Then can we have a look at {Day39/173:3}. This is  
 23 on the same topic. Mr Bailey says:  
 24 "Answer: I think — well, I think from what we've  
 25 seen, I think the reality is that they were supplied as

1 a styrofoam core, as Dr Lane has suggested."  
 2 Now, I just want to ask you: to the best of your  
 3 knowledge and recollection, was the order for PIR–cored  
 4 panels at location P2 ever substituted by Panel Systems  
 5 to a product with a Styrofoam core?  
 6 A. No.  
 7 Q. So, to the best of your knowledge, PIR–cored panels were  
 8 manufactured and supplied to Harley?  
 9 A. No, that wasn't the question. We did not substitute  
 10 Styrofoam. If you go back to the enquiry from Harley,  
 11 it references P1 and P2; it does not identify any  
 12 difference between those two specifications. And  
 13 in fact, the drawing that you put on also, with the red  
 14 annotation, showed that it had already been changed to  
 15 Styrofoam before it came to Panel Systems.  
 16 Q. In respect of the P2 panel, the specification — I can  
 17 take you back to it if it helps — remained as TP10  
 18 rigid insulation, and so my question is simply: was that  
 19 order for TP10 ever substituted by Panel Systems to  
 20 a Styrofoam core?  
 21 A. No. We would never change a panel core that a customer  
 22 has asked for.  
 23 SIR MARTIN MOORE–BICK: Can I just ask you, Mr Ibbotson:  
 24 you've explained that you couldn't use TP10 as a product  
 25 because of the foil facing —

1 A. Yes.  
 2 SIR MARTIN MOORE–BICK: -- but you could and did obtain the  
 3 actual insulation material.  
 4 A. The foam plastic, the PIR, yes.  
 5 SIR MARTIN MOORE–BICK: Yes. Was there ever any difficulty  
 6 getting hold of the PIR itself?  
 7 A. No.  
 8 SIR MARTIN MOORE–BICK: I imagine it's a fairly easy product  
 9 to obtain, isn't it?  
 10 A. Yes. And we use it on a regular basis.  
 11 SIR MARTIN MOORE–BICK: Yes, all right, thank you very much.  
 12 Yes, Ms Drage.  
 13 MS DRAGE: Thank you, Mr Chairman.  
 14 In that period of time, so August to October 2015,  
 15 do you yourself recall seeing any order for  
 16 Styrofoam–cored panels?  
 17 A. No.  
 18 Q. Finally, are you able to help us with what these panels  
 19 with the PIR core were actually used for at  
 20 Grenfell Tower?  
 21 A. No.  
 22 MS DRAGE: Thank you, Mr Ibbotson. I have now come to the  
 23 end of my questions for you.  
 24 I will hand back to the Chairman as it will be  
 25 necessary for us to have a short break to see if there

49

1 are any further questions from elsewhere.  
 2 SIR MARTIN MOORE–BICK: Right, Mr Ibbotson. Well, that's  
 3 the end of the questions that counsel thinks she needs  
 4 to ask you. We always have a short break at this point  
 5 just so that counsel can check that she hasn't  
 6 overlooked anything, and also to enable others who are  
 7 following the hearing to suggest other questions that it  
 8 might be necessary to ask you.  
 9 So we're going to break now and we'll resume at  
 10 11.35, please. That gives us just over quarter of  
 11 an hour. At that point we will be able to tell you  
 12 whether there are any more questions we have for you,  
 13 but there probably won't be too many.  
 14 THE WITNESS: Okay, thank you.  
 15 SIR MARTIN MOORE–BICK: Can I just ask you, while we're  
 16 having this break, please don't talk to anyone about  
 17 your evidence or anything relating to it.  
 18 THE WITNESS: Thank you.  
 19 SIR MARTIN MOORE–BICK: All right? So we will see you at  
 20 11.35. Thank you very much.  
 21 (11.18 am)  
 22 (A short break)  
 23 (11.35 am)  
 24 SIR MARTIN MOORE–BICK: Welcome back, everyone. We will see  
 25 now whether there are any further questions for

50

1 Mr Ibbotson.  
 2 I'll just check that Mr Ibbotson can hear and see us  
 3 all?  
 4 THE WITNESS: Yes, very clear.  
 5 SIR MARTIN MOORE–BICK: Very good, thank you very much.  
 6 Well, we will see if counsel has any more questions  
 7 for you.  
 8 Yes, Ms Drage?  
 9 MS DRAGE: Thank you, Mr Chairman. I don't have any other  
 10 questions for this witness.  
 11 SIR MARTIN MOORE–BICK: Right. Well, thank you very much,  
 12 well done.  
 13 Well, Mr Ibbotson, no more questions for you, which  
 14 will no doubt come as a good thing, so it only remains  
 15 for me to thank you very much for making yourself  
 16 available. I'm sorry if you were inconvenienced  
 17 yesterday, because I think at one stage we were hoping  
 18 to see you yesterday, but we couldn't manage that. I'm  
 19 sorry if that caused you difficulties. Anyway, we have  
 20 now seen you, we have had the benefit of hearing your  
 21 evidence, for which we're very grateful, so thank you  
 22 very much, and that's the lot, you're free to go about  
 23 your business.  
 24 THE WITNESS: Thank you very much.  
 25 SIR MARTIN MOORE–BICK: Thank you very much, goodbye.

51

1 THE WITNESS: Bye.  
 2 (The witness withdrew)  
 3 SIR MARTIN MOORE–BICK: At that point, we will have a short  
 4 break while we reorganise things so that Mr Millett can  
 5 open some documents to us for much of the rest of the  
 6 day.  
 7 (11.36 am)  
 8 (A short break)  
 9 (11.45 am)  
 10 SIR MARTIN MOORE–BICK: Welcome back, everyone. At this  
 11 stage, Mr Millett is going to show us a number of the  
 12 documents that have been disclosed by Arconic, some of  
 13 which we have seen briefly during the course of  
 14 Mr Schmidt's evidence, but some of which we've not yet  
 15 seen at all.  
 16 So, Mr Millett, when you're ready, we'll look  
 17 forward to hearing from you.  
 18 Arconic Presentation  
 19 MR MILLETT: Thank you very much, Mr Chairman.  
 20 Mr Chairman, members of the panel, today we continue  
 21 with the documentary evidence of Arconic, the  
 22 manufacturer of Reynobond ACM.  
 23 We have heard from Ms Deborah French and from  
 24 Mr Vince Meakins. They were the UK sales  
 25 representatives for the Reynobond products. We have

52

1 also heard evidence from Mr Claude Schmidt. He was the  
2 general manager of the Arconic company based in Merxheim  
3 in France, known in his evidence at AAP-SAS.

4 As the panel knows from my submissions at the start  
5 of Arconic's evidence, we had invited other Arconic  
6 witnesses who are located in France and Germany to come  
7 to the Inquiry to give oral evidence. Those witnesses  
8 were Claude Wehrle, head of technical sales support,  
9 Peter Froehlich, the product manager for the Reynobond  
10 range at material times, and Gwenaelle Derrendinger, who  
11 was at material times a sales assistant for Arconic in  
12 relation to products, and she was based at Merxheim and  
13 part of the inside sales team. As you know, those  
14 witnesses declined to attend to give evidence on the  
15 basis of a perceived risk of prosecution by the French  
16 authorities under the French Blocking Statute of 1968.

17 The aim of this presentation is to place the  
18 remaining Arconic documents which will need to form part  
19 of the record into the public domain, and to show  
20 further key documents to you that we would have looked  
21 at with those witnesses so that you can see and  
22 understand them in a coherent order. It is also to set  
23 some of the documents that you have already seen into  
24 their wider context.

25 It will on occasions be necessary to explain to you

1 and to the public at large how documents relate to  
2 the Inquiry's lines of investigation. That in turn will  
3 involve identifying the further lines of inquiry arising  
4 from the documents and at times what those witnesses say  
5 about them.

6 I'm not going to show you every single document that  
7 we would necessarily have put to Mr Wehrle or to  
8 Mr Froehlich or to Ms Derrendinger. This is not a mock  
9 examination in the absence of the witness. Nor do  
10 I propose to make submissions on what you should make of  
11 the documents or about what, if any, inferences you  
12 should draw from the documents, or from the fact that  
13 the relevant witnesses have chosen not to give oral  
14 evidence. All core participants will of course have the  
15 opportunity to address the panel on the documents and  
16 any inferences to be drawn from them when they come to  
17 make their closing statements. That of course includes  
18 Arconic.

19 With that introduction, I turn to the first of the  
20 set of documents that we need to look at. This takes us  
21 back to 1997, and the tests conducted in that year on  
22 a product called Reynobond PE 160. We heard from the  
23 Arconic witnesses about a number of documents that may  
24 or may not show that Reynobond PE 55 could claim to be  
25 class 0 under the British Standards.

1 If we look first at the 1997 Warringtonfire tests,  
2 you will remember that we heard that the product called  
3 Reynobond PE 160 was tested by Warringtonfire in 1997.  
4 Claude Wehrle refers to those tests at page 14 of his  
5 witness statement at paragraph 47. If we could have  
6 that up, please, that's {MET00053190/14}. At  
7 paragraph 47 he says:

8 "I also had no reason to suppose that there was  
9 a material difference in fire performance between the PE  
10 panels manufactured in the US, which were tested at  
11 Warrington in 1997 (panels which were then known as  
12 RB160 PE), and those which were subsequently marketed as  
13 RB55 PE."

14 That's what he says.

15 Can we look at {BSI00001757}. This is  
16 British Standard 476, part 10, and this is the 2009  
17 edition. It sets out the principles of fire testing  
18 under BS 476.

19 Can we go to page 20 {BSI00001757/2}, please. On  
20 page 20, if you look at paragraph 5.3 at the bottom of  
21 that page, "Field of application", you will see that it  
22 says:

23 "Within the field of reaction to fire, direct field  
24 of application is the application of the test results  
25 for a material or product in accordance with the details

1 of how they were tested. Specifically, this means that  
2 the mounting and fixing arrangement used in the test  
3 method is applied directly to the use of the material or  
4 product in real end use conditions. Any variation in  
5 the physical properties or thickness of material or  
6 product in the end use application, or variations in the  
7 mounting and fixing arrangements, should be either  
8 quantitatively determined through a carefully designed  
9 test programme or, in some cases, be the subject of  
10 an assessment or expert judgement by an expert."

11 I can pause there.

12 I would also ask you to look, please, next at ADB,  
13 which we have at {CLG00000224/122}. This is a part of  
14 ADB that we have looked at with some of the witnesses in  
15 Module 1, but it's worth just reminding ourselves about  
16 it.

17 At paragraph 16, on the bottom left-hand side of the  
18 screen, you can see that it says:

19 "Results of tests on proprietary materials are  
20 frequently given in literature available from  
21 manufacturers and trade associations.

22 "Any reference used to substantiate the surface  
23 spread of flame rating of a material or product should  
24 be carefully checked to ensure that it is suitable,  
25 adequate and applicable to the construction to be used.

1 Small differences in detail , such as thickness,  
 2 substrate, colour, form, fixings , adhesive etc, may  
 3 significantly affect the rating."  
 4 That's relevant to the question of whether the  
 5 results of a test on one product can be applied to  
 6 another product, however closely similar , and also the  
 7 extent to which Arconic was or was not aware of those  
 8 principles .  
 9 Can we then go back, against that background, to  
 10 Mr Wehrle's witness statement at paragraph 74 on page 23  
 11 {MET00053190/23}. If you look at paragraph 74, he says:  
 12 "To my knowledge, there have been no substantive  
 13 changes to the composition of Reynobond PE since 2005,  
 14 save for a change to the colour of the core which  
 15 occurred on 4 May 2015."  
 16 He goes on to explain what that was.  
 17 Can we next look at {META00002926}. This is  
 18 a monthly report, apparently by Claude Wehrle, and we  
 19 can see the date at the top: it refers to October 2005.  
 20 Can we please look at item 3, towards the bottom of  
 21 the screen. It says, under  
 22 "Tests/calculations/optimisations/drawings/studies",  
 23 under "Poland":  
 24 "We failed the fire tests 2 months ago with our  
 25 standard core at 64% of ATH. Now we want to do new

57

1 tests with 65% of ATH (coming from Eastmann) and with  
 2 68.6% of ATH produced as 'prototype' in Merxheim. These  
 3 new tests will take place as soon as the US material is  
 4 coming in."  
 5 Now, we have reason to think that ATH stands for  
 6 alumina trihydrate, which is a fire retardant.  
 7 When Mr Wehrle refers to "standard core", the  
 8 question is whether he was referring to PE core there.  
 9 This document invites investigation of a number of  
 10 things: first , whether it indicates that there was  
 11 a change in the recipe, the chemical make-up, for the  
 12 standard PE core at this time, October 2005; second,  
 13 what those changes were, if there were any, and whether  
 14 they in fact occurred and to what extent; third, if  
 15 there were any other changes in the Merxheim product  
 16 before 2005; and, fourthly, whether Mr Wehrle was aware  
 17 of any additives in the core of Reynobond PE 160 which  
 18 had been tested back in 1997.  
 19 Next we go to Mr Southgate and his warnings about UK  
 20 testing in 2006.  
 21 Can we go to {MET00064988/19}, please. This is  
 22 an email from Colin Southgate to Gérard Sonntag at  
 23 Alcoa. You will recall that Mr Southgate was  
 24 Deborah French's predecessor in UK sales. This is dated  
 25 26 July 2006, and its subject is "Reynobond Fire

58

1 certification ". You can also see that it goes to  
 2 others, including Guy Scheidecker and Claude Wehrle.  
 3 It 's worth reading the email in full , and forgive me  
 4 for doing so:  
 5 "Gerard – Re telecon yesterday evening.  
 6 "This is a subject that I have discussed with all  
 7 concerned many times over the past 2/3 years but no  
 8 action has been taken as far as the UK market is  
 9 concerned – Surprise Surprise!!  
 10 "Now we could have a major problem that could cost  
 11 AAP–M a lot of money in potential claims and legal  
 12 costs.  
 13 "Let me try to explain the situation and why I think  
 14 we could be in trouble.  
 15 "Original fire testing based on RB–55/PVdF paint  
 16 finish – completed in March 1997.  
 17 " Certification created under Certs –  
 18 "WARNES 70707 – Spread of Flame – Class 1.  
 19 "WARNES 70708 – Fire propagation – Class 0.  
 20 "This certification [underlined and bold] should  
 21 have been reviewed and re assessed every 5/6 years so in  
 22 2002/03 a review should have taken place. The life span  
 23 of the certification is 10years max and our current  
 24 certs expire and will be invalid in March 2007. This  
 25 certification covers only RB–55 and does not cover RB–55

59

1 or RB–33 in Poly or DG paint coatings!! [again in bold]  
 2 So from March 2007 Warrington Fire will not stand by our  
 3 WARNES approval and not support in any claim  
 4 situation !!!  
 5 "AAP–M have used for the past 6 years WARNES 70707 &  
 6 WARNES 70708 covering all RB product range covering  
 7 Architectural, CID & S&D. These approvals are shown in  
 8 all of our current RB product brochures!!  
 9 "Our certifications WARNES 132317 & 132616 approval  
 10 Sept 2003 cannot be used as updated approvals covering  
 11 70707 & 70708. This is due to the RB product having an  
 12 FR core."  
 13 Just pausing there, we will go later to see those  
 14 test reports.  
 15 "So for UK & Ireland we have the following fire  
 16 approvals."  
 17 Then he sets them all out underneath, and you can  
 18 see there that the first one:  
 19 "RB–55 Architectural/PvdF finish x 4mm: OK approval  
 20 until March 2007.  
 21 "RB–55 (FR) Architectural/PvdF finish x 3mm: OK  
 22 approval until Sept 2013."  
 23 Then there are three products:  
 24 "RB–55 Architectural/DG5000 finish x 4mm: None.  
 25 "RB–55 Architectural/CID DG3000 finish x 4mm: None.

60



1 "RB-33 Sign & Display ... None."  
 2 Then he goes on:  
 3 "During the past 6/9 months Amari branches have  
 4 supplied RB-33 for use in European Airports. This have  
 5 been for major Advertising Displays. Amari clients have  
 6 asked for copies of Fire certification covering RB S&D  
 7 as shown in our literature. 3 projects in Heathrow,  
 8 Gatwick, Paris and I think Dubai are all asking for  
 9 [accredited] fire certification .  
 10 "Amari WL customer has paid over £750 to get RB-33  
 11 approved by Warnes so they can obtain payment for their  
 12 work. This problem is now closed and Gatwick accepted  
 13 this approval.  
 14 "Amari EL customers are wanting our approvals.  
 15 Merxheim has sent copies of certs 132317 & 132616 which  
 16 do not cover RB-33 Pe core. Today I have sent copies of  
 17 70707 & 70708 to see if this will keep their clients  
 18 happy, if Amari cannot keep them happy then they are  
 19 concerned that the displays will be taken down and  
 20 remade and fitted at Amari's cost. If this happens it  
 21 could be bigger than the brushed claim.  
 22 "Anne-Laure has lived with this Fire Certs problem  
 23 without really being able to help for many months. I am  
 24 sure A-L has reported it to you. I understand we do  
 25 have a certification in France covering RB-33??"

61

1 "My final worry is misrepresentation to the market  
 2 by our Distributor as AAP-M cannot supply  
 3 a true/ official Fire certification covering RB-33 & some  
 4 RB-55 products even though they are selling the feature  
 5 as a benefit via our Advertising.  
 6 "Your urgent response is requested."  
 7 You can see that Mr Wehrle is copied, as I say.  
 8 Now, this document raises a number of questions, but  
 9 most important is whether Mr Wehrle himself was aware of  
 10 a practice of sending out test certificates for one  
 11 product in support of sales of another product. If  
 12 that's right, was he aware that there was any technical  
 13 justification for doing that?  
 14 You can also see, as I've identified, that  
 15 Mr Southgate's opinion, as reflected in this document,  
 16 is first that there should have been a review of the  
 17 Reynobond 1997 certificates for PE in five to six years  
 18 from the issue, and that the certificate would expire  
 19 within ten years or in ten years. There is no expiry  
 20 date stated on those certificates, I should say, but  
 21 there is a wider question here about whether  
 22 certificates should be viewed after a fixed date,  
 23 five years or so, perhaps ten.  
 24 Can we then go to the response to Mr Southgate from  
 25 Gérard Sonntag the next day, 27 July 2006. This is at

62

1 {MET00064988/20}. He says:  
 2 "Dear Colin,  
 3 "We just finish [ed] with Claude our meeting  
 4 concerning the update of the situation.  
 5 "We had some month ago the request for a Sign  
 6 project in Rb33, the Reynobond certification we sent was a  
 7 copy of the Reynobond certification we sent was a copy  
 8 of the Reynobond Architecture [Warrington] certificate  
 9 to the Amari branch and we get no remarks from them.  
 10 [Then], we decided to not organize the tests just for  
 11 this project (around 7971 per [thickness] x 3 [and he  
 12 gives measurements] ... of course the situation since  
 13 middle June is very different .  
 14 "Claude asked to Mr Moore from the Warrington fire  
 15 on July 6th all conditions to organize the tests, he get  
 16 the offer from them dated July 7th (The same offer that  
 17 Mr Ian Moore send back this morning).  
 18 "The question was to wait the new formulation of the  
 19 Rb55 FR (COA3) and to organize all test together with  
 20 the Rb33."  
 21 Then there is something about the time schedule.  
 22 Now, we see here talk of the tests for RB33, that's  
 23 the signage product, and FR-cored RB 55, the  
 24 architectural panels, and you heard some evidence that  
 25 there were indeed BS 476 tests at this time in 2006 on

63

1 FR-cored RB 55, and we have those, and you heard that  
 2 from Mr Schmidt on {Day91/45:11} to {Day91/46:11}.  
 3 We also heard that there were a number of tests done  
 4 on RB 33 at that time as well, and he said that at  
 5 {Day91/44:5-25}, and we know from the documents that  
 6 there was indeed BS 476 testing on RB 33 in three  
 7 diameters or measurements, 2 millimetres, 3 millimetres  
 8 and 4 millimetres, in September of that year, 2006.  
 9 I'll just read those into the record: the  
 10 Reynobond 33 2-millimetre tests are at {ARC00000366} and  
 11 {EXO00001960}, and there is a class 0 summary report at  
 12 {EXO00001956}; there is a Reynobond RB 33 3-millimetre  
 13 test report under BS 476-6 and 7, they are at  
 14 {EXO00001951} and {EXO00001943}, with the class summary  
 15 or report at {ARC00000362}; and the 4-millimetre  
 16 Reynobond 33 test reports to BS 476-6 and 7 are at  
 17 {ARC00000365}, {ARC00000367}, and the class 0 summary  
 18 report can be found at {ARC00000363}.  
 19 But there was no testing at this time that we have  
 20 been able to see of any Reynobond 55 product with a PE  
 21 core under BS 476-6 or 7.  
 22 On the basis of those documents that I have read  
 23 into the record and summarised very briefly, and this  
 24 email, lines of inquiry arise about whether there was  
 25 a gap in the certification for the UK; if so, why that

64

1 gap was allowed to open up; why it wasn't closed with  
 2 new tests done under BS 476-6 and 7, either at that  
 3 stage or thereafter; what was it about the UK market  
 4 that meant that these tests were not regarded as so  
 5 important that they needed to be kept current; what  
 6 was the position with these products being sold in  
 7 Europe?  
 8 We next turn to the claimed relevance of the 1997  
 9 PE 160 tests and the RB 33 tests.  
 10 Mr Wehrle says that the 1997 tests on 160 PE and the  
 11 2006 RB 33 tests are relevant to the statement that  
 12 RB 55 PE was class 0.  
 13 Can we go to his witness statement at page 9  
 14 {MET00053190/9}, paragraph 34. At paragraph 34, if you  
 15 look at the second sentence, three lines down, he says:  
 16 "Moreover, I had arranged in 2006 for other RB PE  
 17 products to be subjected to BS476 parts 6 and 7 testing,  
 18 including in particular RB334, which has the same PE  
 19 core but greater PE thickness (3.4mm compared to 3mm)  
 20 when compared with RB55 and has thinner aluminium on  
 21 each side of the core (a total of 0.6 mm as opposed to  
 22 a total of 1 mm on RB55)."  
 23 He goes on to say:  
 24 "It hence has proportionately more PE and a thinner  
 25 protective skin."

1 Now, this raises questions about whether in fact at  
 2 the time there was any exercise done by Arconic to  
 3 analyse the data from the RB 33 tests and extrapolate  
 4 that data or from that data to apply it to RB 55 PE core  
 5 then being manufactured.  
 6 If there was such an exercise, the next question is  
 7 the basis on which that exercise was conducted, what  
 8 methodology was used, and it also raises the question  
 9 whether Mr Wehrle himself had any data in his own hands  
 10 at the time to support the extrapolation, and if not  
 11 what the basis of the view set out in this paragraph  
 12 was.  
 13 We then turn to the tests supplied to the US.  
 14 I should draw your attention to something we have  
 15 not seen at all, which assists us in understanding  
 16 whether anything could in fact be learnt about RB 55's  
 17 fire performance from the RB 33 tests.  
 18 Could we go to {META00001104}, please. This is  
 19 an email, as you can see, from Claude Wehrle to  
 20 Diana Perreiah and Thomas Rogers on 30 June 2017. It  
 21 postdates the Grenfell Tower fire.  
 22 Mr Wehrle writes:  
 23 "I send you as attached document a list of all the  
 24 relevant certifications we have for our products in  
 25 Merxheim.

1 "Please note the 3 categories:  
 2 " ■ Product certificate — with Audit done by the  
 3 notified body.  
 4 " ■ Technical approval — Based on system  
 5 qualification for product installation .  
 6 " ■ Reaction to fire ."  
 7 The table that's attached — and you can see that  
 8 there is an attachment, in fact I think two attachments  
 9 to this email. The one we need to look at in native  
 10 format is at {META00001106}, please. This lists the  
 11 tests for numerous countries, as you can see from the  
 12 country list under row 7, "Pays", if you can see that,  
 13 it starts at Singapore and runs down through Switzerland  
 14 and the UK. Listed are the EN 13501 European  
 15 classification scheme tests at lines 68 to 82, you can  
 16 see those there, under "Europe", and those are for  
 17 RB 55. So those are the European tests.  
 18 You can see the UK BS 476 tests at rows 121 to 127,  
 19 if we just scroll down to those, in the light green  
 20 block. What you get from that is that this list lists  
 21 the tests only on FR core in 2012 and 2016. There is no  
 22 reference in this list to any BS 476 testing for the UK  
 23 or in the UK for any PE product. That includes the  
 24 Reynobond 33 product or the 1997 PE 160 tests.  
 25 The question is: why not, if they were relevant?

1 Next we turn to the FR tests which were done to  
 2 achieve class 0 in 2003. I mentioned these in passing  
 3 a little earlier on.  
 4 In September 2003 there were BS 476-6 and 7 tests  
 5 done on Reynobond 55 FR core. Those tests did not have  
 6 a summary report issued which stated that those results  
 7 would meet class 0, but we can say from those test  
 8 results that we have that the part 6 test indicated  
 9 an I index of 0, and the part 7 indicated a class 1  
 10 performance. That would appear to be within the  
 11 parameters of a class 0 definition .  
 12 For reference purposes, the BS 476-6 test, which is  
 13 numbered 132317, is at {BBA00000053}, and the BS 476-7  
 14 test, which is numbered 132316, is at {BBA00000050}.  
 15 So those are, in a nutshell, the September 2003 FR  
 16 tests which achieved class 0, even though not formally  
 17 classified as such.  
 18 We then look at the European testing, and this will  
 19 be very familiar to you, the two tests, 5A and 5B, done  
 20 in late 2004. We've seen that from the Arconic  
 21 witnesses who gave evidence.  
 22 Because of the way that the single burning item  
 23 test, namely EN 13823, is configured, it requires the  
 24 specimen to be fabricated as either rivet or cassette.  
 25 You have to have a fixation system in order to be able

1 to set the test up under the European regime.  
 2 We saw the results in the classification reports  
 3 dated 4 January 2005, and just to remind you, the  
 4 Reynobond 55 PE in rivet, which was test 5 -- or, to  
 5 give it its full nomenclature, RA05-005A -- achieved  
 6 classification B-s2, d0. The Reynobond 55 PE in  
 7 cassette, which was test 5B -- or, to give it its full  
 8 title, RA05-005B -- was stopped after 850 seconds as the  
 9 heat release rate exceeded 400 kilowatts.

10 Now, the document references for the record again --  
 11 and you will have these, but just to remind you of  
 12 them -- for test 5A, that is at {ARC00000535}, its  
 13 accompanying classification report is at {ARC00000358};  
 14 for test 5B, the test report -- and you will recall we  
 15 only have a test report -- is at {ARC00000536}.

16 I would like to pick up on one point. You've seen  
 17 test report 5B, and you'll have seen from the  
 18 examination on it that it was a single specimen test  
 19 which was terminated early and no further specimens were  
 20 tested.

21 Can we look at {BSI00000620}. This is the standard,  
 22 the British Standard, EN 13501 of 2002, which was  
 23 applicable at the time of test 5B. In other words, it's  
 24 the British Standardisation of the European Standard.

25 If we go to page 15 {BSI00000620/15}, we can see it

1 says, "Number of tests for classification " under  
 2 section 7. If you scroll down and look at  
 3 section 7.3(a), the procedure or part of the procedure  
 4 that is required is to:

5 "Calculate the mean value (m') of the set of results  
 6 for this parameter using the minimum number of tests."

7 If you pause there, take it from me that the single  
 8 burning item or SBI test, EN 13823, requires a minimum  
 9 of three specimens.

10 If you go on under letter (b) it says:

11 "If m' lies within the limits for an envisaged  
 12 class, the value m used for classification is m'."

13 Then (c):

14 "If m' does not lie within the limits for an  
 15 envisaged class, two additional tests may be carried  
 16 out."

17 That's important. I would emphasise that.

18 Then (d):

19 "If two additional tests are carried out, the  
 20 results for each parameter in these two tests shall be  
 21 added to the set of results obtained in the minimum  
 22 number of tests. Next, the two extremes (highest and  
 23 lowest) for each parameter individually shall be  
 24 excluded. The value m, used for classification, shall  
 25 then be calculated using the remaining set of results

1 for each parameter."

2 Now, this section of the EN 13501 standard says, at  
 3 the end of the SBI three tests, if the mean result is  
 4 not what the sponsor envisaged, then they can do two  
 5 further tests and exclude the highest and lowest  
 6 datasets. In lay terms, that means that if the first  
 7 specimen performed unexpectedly, a client, a test  
 8 sponsor such as Arconic, could have carried on with  
 9 another four tests, removed and best and worst results  
 10 and gained a classification, and in that way, any  
 11 apparently rogue result could have been excluded.

12 Now, I'd invite you to bear in mind that this is  
 13 an option open to a test sponsor if they don't get the  
 14 result they expect or envisage, and that's written into  
 15 the standard. The question, looking at this standard in  
 16 a little detail, which arises is why Arconic didn't use  
 17 this provision in the standard, carrying on testing the  
 18 cassette--fix variant, in order to seek the  
 19 classification required if possible.

20 We next move on in time by a year to 2006 to pick up  
 21 something I mentioned not only earlier but also with the  
 22 witnesses, which is the 2006 Reynobond FR test in rivet.

23 There was a test in October 2006 where Reynobond FR  
 24 achieved European classification B-s1, d0 under the  
 25 European regime EN 13501. The reference to that is at

1 {BBA00008288}.

2 This was the FR product in rivet--fix only. We have  
 3 been unable to find any test results for the FR product  
 4 in cassette form at this time. That raises the  
 5 question: why not? Why not particularly if the result  
 6 of test B on PE non--FR form done at the end of 2004 was  
 7 thought within Arconic to be a rogue?

8 We then turn to the initial assessment of Reynobond  
 9 by the BBA. This starts in 2004 and is picked up again  
 10 in 2006, before the eventual classification process  
 11 during 2007 leading to the classification certificate in  
 12 January 2008.

13 The documents show that in 2004, going back to the  
 14 beginning of the story, Mr Wehrle made an application  
 15 for a BBA certificate for Reynobond 55. We have  
 16 an application form dated 9 March 2004 which has some  
 17 handwritten amendments on it, and the reference for that  
 18 is {MET00053158\_P13/122}, and the date is on page 127.  
 19 There is no need to turn it up, but that is in the  
 20 record.

21 One can tell that the BBA then offered Arconic  
 22 a contract to assess Reynobond 55 but, to cut a longish  
 23 story short, it wasn't taken up at that time. The  
 24 contract offer was at {MET00053158\_P13/137}, and look  
 25 also at {MET00053158\_P13/146} to {MET00053158\_P13/148},

1 and terms and conditions sent at page 148.  
 2 The effort was then renewed in 2006 by Arconic. In  
 3 the August of that year, Mr Wehrle sent an application  
 4 form that was very similar to the application form which  
 5 he did in 2004, and indeed didn't in fact even update  
 6 the date. The reference to that is  
 7 {MET00053158\_P13/166}. So it is for that reason that we  
 8 have two slightly different application forms, both  
 9 carrying the date of 9 March 2004.  
 10 There is then a third application form dated  
 11 February 2007, to which we will return later.  
 12 Before we do, can we look at the documents used by  
 13 Arconic to support their application.  
 14 I would like to begin with those used to support the  
 15 application form submitted in 2006. For that we need to  
 16 go to {MET00053158\_P13/167}. This is the first page of  
 17 the application form, "Application for BBA Assessment",  
 18 that's where it begins. If we can go in this, please,  
 19 on to page 173 {MET00053158\_P13/173}, we can see that  
 20 this is the part of the form which sets out the  
 21 available assessment calculation and test data.  
 22 Under section 3.1 on the left-hand side of the  
 23 screen, it says this:  
 24 "If suitable data is available, it may significantly  
 25 reduce the cost and duration of the Contract. Please

1 identify all data relevant to the Product and its Use  
 2 being assessed. The data should contain an accurate and  
 3 detailed description was samples used and should have  
 4 been produced within the last three years."  
 5 Then you see a list of reports below that, and that  
 6 includes two types of data called Avis Technique. Those  
 7 cover, under the heading in the column "Characteristic  
 8 covered", "eg Fire, Thermal, Acoustic, Structural,  
 9 Durability". It says, "Structural and system for  
 10 cassettes", and then below that, "Structural and system  
 11 for riveted". The issuing organisation there is "CSTB –  
 12 FRANCE Paris", and there are numbers set out, or at  
 13 least for the cassette version, and the dates of issue.  
 14 You can see those.  
 15 We understand that there were, at least from the  
 16 first reference there, Avis Technique documents relating  
 17 to structural and system for cassette. It is our view  
 18 on the documents at the moment that these documents were  
 19 put forward as data to the BBA for the technical aspects  
 20 of these two systems of fixing RB 55 structural but not  
 21 for fire performance.  
 22 If you go four rows down in this document, you can  
 23 see it says "Test for Fire Propagation", and there the  
 24 characteristic covered is:  
 25 "Fire BS 476 part 6 [and] part 7.

1 "Issuing Organisation: Warrington FIRE research.  
 2 "Report or Identification Number: 132316 and  
 3 132317."  
 4 You will remember that those are the test report  
 5 numbers for the tests done on Reynobond FR-cored product  
 6 in 2003, and we saw those, or at least mention of them,  
 7 earlier : the part 7 test, 132316 at {BBA00000050} and  
 8 the part 6 test, 132317 at {BBA00000053}.  
 9 What we don't see here is any reference to the  
 10 January 2005 European tests, test 5A for rivet or  
 11 test 5B for cassette. The question or line of  
 12 investigation raised by this document is: why not?  
 13 We then turn, against this background, to a meeting  
 14 held in Luton in March 2006. This is before this  
 15 application.  
 16 There was an internal meeting where  
 17 Didier Scheidecker, who was the sales manager for  
 18 Arconic, visited Colin Southgate, who was the UK sales  
 19 representative at the time, and they appear to be  
 20 discussing UK strategy.  
 21 Can we go, please, to {MET00053158\_P13/162}, so it's  
 22 a little bit earlier on in this exhibit. It's  
 23 a document which is entitled "Visit report – UK  
 24 meeting", written by Didier Scheidecker, as you can see  
 25 from the top right-hand corner, date of visit:

1 21 March 2006, and you can see that the visit report  
 2 appears to have been copied to GSC, who is  
 3 Guy Scheidecker, and Claude Wehrle, CWE.  
 4 If you scroll down, please, to page 164  
 5 {MET00053158\_P13/164}, we can look at item 5 together,  
 6 "Technical tools". Under that heading, there is a third  
 7 bullet point, "BBA Approval", and it says there:  
 8 "We have always more and more projects coming in the  
 9 'Public housing & private development' segment. We have  
 10 here project of several 10.000 sqm in discussion. It  
 11 could represent in 2006; 50% of the market; means  
 12 70–80.000sqm! In the segment, we have always to show  
 13 the official certification from the BBA. Action:  
 14 "– Can we organize to have the BBA certification,  
 15 based on our cassette approval by the CSTB? How quick?  
 16 Which costs? Which condition?  
 17 "– The KH35 is a key system on the market, a real  
 18 trend. What are the conditions to have it BBA  
 19 approved?"  
 20 Now, just pausing there, the question that this  
 21 document presents is: what did, "based on our cassette  
 22 approval by the CSTB" mean? If one goes back to the  
 23 previous page, you can see the phrase used there in that  
 24 first bullet point: "based on our cassette approval by  
 25 the CSTB". What did that mean? Did it refer to the

1 Avis Technique opinions or something else? If it was  
 2 something else, what was it?  
 3 Further questions arise on this document: was there  
 4 a strategy to target the UK public housing and private  
 5 development sector in the UK? Did Mr Wehrle think that  
 6 that required BBA certification or would benefit from  
 7 such certification? And was the driver for Arconic to  
 8 re-open its plan to obtain BBA approval that marketing  
 9 initiative or desire?  
 10 You will also just have seen there, at the bottom of  
 11 that page, in the second bullet point, a reference to  
 12 something called KH 35, and it's described as "a key  
 13 system on the market, a real trend". The question there  
 14 is: what is that? Is that a reference to a cassette  
 15 system offered by Arconic? Does it follow, therefore,  
 16 that the original plan was for the BBA certificate to  
 17 cover the cassette form specifically?  
 18 There is a later meeting in 2006 in Watford on  
 19 2 November. Can we go to {MET00053158\_P14/114},  
 20 a different exhibit of Mr Wehrle's. Again, you can see  
 21 that it's in the format of an Alcoa/Arconic visit  
 22 report. The company visited, as you can see from the  
 23 left-hand side, is BBA, British Board of Agrément. It's  
 24 written by Colin Southgate at Watford, and the date of  
 25 the visit is 2 November 2006. From "Copy", you can see

1 that it's sent to both Guy and Didier Scheidecker,  
 2 "S Wah", who we think is Serge Wahler, Claude Wehrle and  
 3 others.  
 4 If we go down to page 115 {MET00053158\_P14/115},  
 5 please, we can see at the bottom of that page that this  
 6 report was written by Mr Southgate on 6 November 2006,  
 7 so just a few days after the meeting at Watford. You  
 8 can see the date in the bottom right-hand corner there.  
 9 If you go back, please, to page 113  
 10 {MET00053158\_P14/113}, here is an email from  
 11 colin Southgate on 6 November 2006 to people at Arconic,  
 12 including Guy Scheidecker and Claude Wehrle, in which he  
 13 attaches a report, and that is this document.  
 14 Can we then go back to the report, please, to  
 15 page 114 {MET00053158\_P14/114}, and you can see under  
 16 the first block there that it's a record of a meeting,  
 17 as it explains, and the reason for the visit is:  
 18 "Exploratory call to access situation as follows  
 19 with [Claude Wehrle] in attendance."  
 20 The second item there is:  
 21 "Negotiate REYNOBOND 55 proposal sent 22.08.06 value  
 22 £20495.00."  
 23 I should have identified a little bit earlier or  
 24 above that in the document that those present from the  
 25 BBA were Bob Keyse, the business manager, John Albon,

1 technical manager, and Hamo Gregorian, engineering  
 2 system department.  
 3 Now, it's not clear from the right-hand side whether  
 4 Mr Wehrle attended, but he may have attended by  
 5 telephone, and we would need to clarify that with him.  
 6 If you go down to the second of the discussed  
 7 points, it says:  
 8 "Details of visit :  
 9 "After a general discussion with BK and CS threat to  
 10 stop all dealings with BBA unless a satisfactory  
 11 solution was found re both the above potential  
 12 approvals. BK had arranged for the BBA persons  
 13 responsible for each product to be in attendance. (This  
 14 was excellent speaking with the approval technicians  
 15 rather than just Sales!)."  
 16 Then if we go down to page 115  
 17 {MET00053158\_P14/115}, you can see that there is:  
 18 "Meeting B — RB—55 proposal dated 23.08.06 with  
 19 Hamo Gregorian.  
 20 "BBA confirmed that they would look at the original  
 21 proposal and try to reduce the cost. They will use CSTB  
 22 details as a Basis of Validation, but are concerned that  
 23 UK building Regs are more demanding than French regs!!  
 24 Also enclosed was fire regulation input — This will not  
 25 be needed if BBA have latest certs from

1 Warrington research covering PE cores."  
 2 Then on the right-hand side, you will see in bold  
 3 Claude Wehrle, possibly Claude Schmidt, to send full  
 4 certs to BBA.  
 5 Now, the BBA appear to have sought the latest certs  
 6 from Warrington Research covering PE cores, as you can  
 7 see there. Now, those can only have been fire  
 8 certificates, and the question or at least one question  
 9 is: what exactly was Arconic offering to send by way of  
 10 certs, certificates, to the BBA?  
 11 Now, remember that at this point, November 2006,  
 12 Arconic had the following fire performance reports from  
 13 Warrington: we have the Reynobond 160 PE class 0 summary  
 14 from 1997, {ARC00000357}; the test reports from 2003 for  
 15 RB 55 FR core panel, which would achieve a class 0  
 16 result; the class 0 reports for the three thicknesses of  
 17 RB 33, the signage product, from 14 September 2006; the  
 18 class 0 report for Reynobond 55 FR—cored panel, also  
 19 from 14 September 2006; and, of course, Arconic also had  
 20 the results from the 2005 tests, tests 5A and 5B, from  
 21 the CSTB.  
 22 So what was it that was going to be sent?  
 23 Continuing with the visit report, in the second  
 24 paragraph, the author of the report goes on  
 25 {MET00053158\_P14/115}:

1 "I have suggested that it could be better to  
 2 validate the material RB rather than the whole system.  
 3 This way a cross connection can be put together."  
 4 Now, this raises the question about what that meant  
 5 or who said it and in what context, but critically, why  
 6 it "could be better" to validate Reynobond material  
 7 rather than the whole system.  
 8 The next sentence:  
 9 "This way a cross connection can be put together."  
 10 In what way could a cross—connection be put  
 11 together? What does that mean?  
 12 More broadly, was there any discussion at this  
 13 meeting of test 5B on PE cassette and what it showed?  
 14 Was there a discussion about whether the proposed  
 15 BBA certificate should differentiate between rivet and  
 16 cassette—fix variants for PE? Was Arconic looking to  
 17 get the BBA to certify the Reynobond 55 panel as  
 18 a product without considering the fire performance of  
 19 each of the different fixing systems, rivet and  
 20 cassette?  
 21 If we go back to the report at the bottom, focusing  
 22 on the bottom of that page:  
 23 "Conclusion — Very positive meeting and hard tactics  
 24 may have helped our situation.  
 25 "RB proposal will be lower

81

1 "Prepared to work with the CSTB data.  
 2 "AAP—M [Arconic Merxheim] do need BBA for UK  
 3 market."  
 4 Two questions: what is meant by hard tactics?  
 5 Secondly, when it says "Prepared to work with the CSTB  
 6 data", what precisely is that data or was that data?  
 7 There is then a further meeting a little bit later,  
 8 also at Watford, early in the first few months of  
 9 2007 — to be precise, 7 February 2007 — between  
 10 Arconic and the BBA, also at Watford.  
 11 Can we go, please, in the same exhibit bundle to  
 12 page 130. This is {MET00053158\_P14/130}. This is  
 13 an email from Didier Scheidecker to Guy Scheidecker and  
 14 Claude Wehrle, copied to Serge Wahler and  
 15 Colin Southgate, attachment, "Fiche ACTIONS", and it  
 16 says:  
 17 "Guy, Claude,  
 18 "Please find attached the visit report following our  
 19 discussion at the BBA.  
 20 "I remain at your disposal should you have any  
 21 questions."  
 22 Over the page at page 131 {MET00053158\_P14/131}, we  
 23 will find the attachment. This is a visit report,  
 24 "Rapport de visite", of 7 February 2007, and in the  
 25 header we can see that the visit was to BBA, and under

82

1 the line you can see that the visit reason was:  
 2 "Reynobond & Reynolux certification.  
 3 "Attendees: SOUTHGATE, RICH; SCHEIDECKER/Monsieur  
 4 HAMO GREGORIAN; Monsieur KEYSE Bob."  
 5 Under the heading "Reynobond", it says:  
 6 "The need of the BBA certification is always more  
 7 and more important.  
 8 "In more than 50% of the projects the contractors  
 9 are requiring the BBA approval, and especially in  
 10 residential buildings, which became a key market for  
 11 ACM.  
 12 "We have lost orders in favour of Alucobond as we do  
 13 not had this approval.  
 14 "Alucobond is the only ACM supplier with this  
 15 approval at the time being, but it will be a real  
 16 [differentiation] point for the coming month.  
 17 "The BBA agrees to make the certification on the  
 18 product without to be linked to a specific system.  
 19 "Possible fixing system will be simply [mentioned]  
 20 in the certification.  
 21 "It means we will have only 1 approval for all our  
 22 application, instead to make one approval per system.  
 23 "If people will ask for more details we will use the  
 24 CSTB specific approvals.  
 25 "[Initially] there[sic] quotation was on 24.000£ but

83

1 after [negotiation], CSO obtained to have it for  
 2 16.500£."  
 3 Then "Action", you can see underneath that:  
 4 "— sent our french building approvals in english —  
 5 [Claude Wehrle].  
 6 "— sent the documents of our CSTBat approval —  
 7 [Claude Wehrle]."  
 8 And other things as well.  
 9 If we go down to the bottom of page 131, please, we  
 10 can see "Conclusion":  
 11 "BBA approvals are very important for the  
 12 development of the UK business.  
 13 "It is a real point of support and recognition on  
 14 the market."  
 15 Now, this document raises the specific question or  
 16 overall question, which is whether there was  
 17 an agreement or an understanding or an arrangement of  
 18 some kind whereby the BBA should avoid focusing on the  
 19 specific fixing system with a view to concealing the  
 20 poor fire performance of the cassette system behind the  
 21 better fire performance of the rivet system. When I say  
 22 "with a view to", I don't mean that anybody necessarily  
 23 had any specific subjective intention, but whether that  
 24 was objectively viewed the goal. That is the line of  
 25 investigation that would need to be pursued, even to the

84

1 point of understanding people's subjective intentions  
 2 and motives.  
 3 We then turn to the BBA contract itself, and that's  
 4 March 2007. You will have seen this from earlier  
 5 examinations. The contract is dated March 2007,  
 6 formally entered between Arconic and the BBA. We've  
 7 seen that at {BBA00008042}, and since you're familiar  
 8 with it, I shall just recite it very briefly .  
 9 It was signed on 21 February 2007 by Arconic and by  
 10 the BBA on 23 March 2007. Its terms and conditions  
 11 include clauses 7(a) and (g), and in particular , under  
 12 7(a), the terms and conditions required Arconic to  
 13 provide the BBA with any test data already available.  
 14 Now, at that point, and again to some extent  
 15 repeating it , we know from the documents that, over  
 16 a period of time, Arconic provided the BS 476 test  
 17 reports for tests on FR core from 2003, test 5A from  
 18 2005, and the 2006 European classification for the FR  
 19 core.  
 20 We will see when we come to examine Mr Gregorian  
 21 that test 5A from late 2004 and the test report from  
 22 early 2005, January 2005, was supplied to the BBA upon  
 23 their specific request in May 2007, so two months or so  
 24 after the formal contract was entered into.  
 25 In November 2007 a further document was provided to

1 the BBA, also in support of fire performance. Can we go  
 2 to the BBA technical file, please, at {BBA00008042/139}.  
 3 This is a classification report numbered RA07-0182 under  
 4 EN 13501. It's in the BBA technical file, so we know  
 5 they had it, and it relates , as you can see from the  
 6 commercial brand, to Reynolux. At the bottom of the  
 7 screen, you can see that it 's dated 14 May 2007.  
 8 Can we look, please, at page 145 {BBA00008042/145}.  
 9 Here we see the classification and direct field of  
 10 application for this Reynolux product, and we can see  
 11 under paragraph 4.2 that its classification is A1.  
 12 Let's examine a little bit more closely why it was  
 13 supplied to the BBA.  
 14 Can we start, please, by looking at Mr Wehrle's  
 15 exhibit at part 16, {MET00053158\_P16/134}. At 134,  
 16 I would like to begin with the email at the bottom of  
 17 that page from the BBA, Hamo Gregorian, to Claude Wehrle  
 18 on 29 November 2013 at 13.43. He says:  
 19 "Claude  
 20 "We already have the 'reaction to fire ' data for the  
 21 exposed face.  
 22 "For our Building Regulations, we also require  
 23 similar data, i.e. testing and classification to  
 24 EN 13501 or BS 476, for the back face.  
 25 "You may be able to obtain this information from the

1 primer manufacturer."  
 2 So that's the request from Mr Gregorian.  
 3 If we scroll down to page 136 {MET00053158\_P16/136},  
 4 at the top of the page we can see the solution proposed  
 5 by Claude Wehrle in his email of 5 December 2007:  
 6 "Hello Hamo,  
 7 "After having checked with our paint laboratory and  
 8 the different certification we have today, I give you  
 9 those two information in order to qualify the back face  
 10 of our Reynobond panels.  
 11 "1- The only difference between front and back side  
 12 is the thickness of the coating witch is 6 [microns]  
 13 instead of 35 [microns]. So we have 14.2 g/m<sup>2</sup> coating  
 14 weight on the back face for 47.2 g/m<sup>2</sup> on the front side.  
 15 "2- Like you can see in the attached 'reaction to  
 16 fire classification report No. RA07-0182', our coated  
 17 [aluminium] used for the skins of Reynobond are  
 18 classified as A1 (non combustible).  
 19 "Can you please now let me know if you have all the  
 20 required information to close our certification  
 21 process?"  
 22 This seems to be how the Reynolux certificate came  
 23 to be sent to the BBA. Reynolux is a completely  
 24 different product from Reynobond. It's a single sheet  
 25 of coated aluminium.

1 One can read these emails, but what appears to have  
 2 been happening is that Arconic was proposing that if the  
 3 paint or coating doesn't burn on the front side, then  
 4 having less paint on the back side should be sufficient  
 5 to allay the BBA's concerns. If that's the right way of  
 6 reading these documents, then the technical basis of  
 7 that assertion would itself invite examination.  
 8 Again, we can see that the Reynolux certificate ,  
 9 although I took you to it quite quickly, refers to  
 10 a completely different set of tests, namely the European  
 11 classification , EN 13501, and not class 0, not BS 476-6  
 12 and 7. The question that arises in that connection is  
 13 why Mr Wehrle provided that certificate in particular ,  
 14 and how it justified a claim about Reynobond achieving  
 15 class 0.  
 16 Can we then turn to the BBA certificate itself  
 17 issued in the January of 2008, and this document is  
 18 at -- I'm sure this reference is now familiar to you --  
 19 {BBA00000047}.  
 20 Now, can I start by taking you to section 6 on  
 21 page 5 {BBA00000047/5}, under the heading "Behaviour in  
 22 relation to fire". I want to focus first on  
 23 section 6.5, resistance to fire . It says:  
 24 "For resistance to fire , the performance of a wall  
 25 incorporating the product, can only be determined by

1 tests from a suitably accredited laboratory, and is not  
 2 covered by this Certificate ."  
 3 Now, that's what the certificate says.  
 4 Let's look and see what Mr Wehrle says about that.  
 5 Can we go to his statement at {MET00053190/17},  
 6 paragraph 58. He says -- I'll read it all so you have  
 7 the full context:  
 8 "The BBA Certificate also makes it very clear, in  
 9 paragraph 6.5, that in relation to resistance to fire ,  
 10 the performance of a wall incorporating the product,  
 11 i.e., the performance of an actual cladding system (as  
 12 opposed to a mock system under test conditions), could  
 13 only be determined by tests from a suitably accredited  
 14 laboratory, and would not be covered by the certificate  
 15 (which related to the product and not to the method of  
 16 fixing or any other feature of the system). In other  
 17 words, the fact that the certificate explains that a PE  
 18 sample achieved an EN B classification in a particular  
 19 systems test was not a guarantee that the outcome would  
 20 be the same in different systems or with different  
 21 fabrications ."  
 22 As you can see, he is referring specifically there  
 23 to paragraph 6.5.  
 24 The words in brackets there invite examination,  
 25 "which related to the product and not to the method of

1 fixing or any other feature of the system", but let's go  
 2 back to the certificate itself at page 5 {BBA00000047/5}  
 3 again, please. We have been looking at section 6.5,  
 4 which is about resistance to fire , as you can see. If  
 5 we look up to the top of the screen, paragraph 6.1, and  
 6 ergo 6.2 and 6.3, relate to reaction to fire , as you can  
 7 see under 6.1 in the third line , "when tested for  
 8 reaction to fire ". Also in the first line , "when tested  
 9 for reaction to fire ".  
 10 Now, the wording difference may be subtle, but it is  
 11 critical . The results stated in 6.1, 6.2 and 6.3 of the  
 12 certificate pertain to reaction to fire ; section 6.5 is  
 13 not about reaction to fire , it's about resistance to  
 14 fire .  
 15 Reaction to fire and resistance to fire are  
 16 different concepts. They have different test regimes,  
 17 and that was explained in passing by Dr Lane in her  
 18 presentation to you on {Day68/41} to {Day68/42}, and  
 19 indeed as referred to recently by Mr Mort in his  
 20 evidence on Day 102.  
 21 If one uses the British Standard 476 suite of tests ,  
 22 you can see the scheme very clearly laid out. BS 476-6  
 23 and 7 are reaction to fire tests , as defined in part 10  
 24 of BS 476. I'll just give you the reference for that:  
 25 that's at {BSI00001757} that's the 2009 version, at

1 pages 17 and 18 under section 5, and specifically  
 2 section 5.2.2 for part 6 and 5.2.3 for part 7. So  
 3 that's reaction to fire .  
 4 For resistance to fire , you need to look at  
 5 a completely different part of BS 476, and that's  
 6 part 20, and that's at {BSI00001748}. It defines  
 7 resistance to fire under section 2.3 on page 7 of that  
 8 document as a measurement of the time for a standard  
 9 temperature over time and a pressure regime without loss  
 10 of its fire separating function or loadbearing function,  
 11 or both.  
 12 So to test a wall incorporating Reynobond and other  
 13 elements, you would need to conduct tests under  
 14 BS 476-20. It's a different concept, it's a different  
 15 test. The same distinction, I should say, also applies  
 16 in the European classification tests.  
 17 The question, when one comes back to see what  
 18 Mr Wehrle says in his statement, or one question, is  
 19 whether Mr Wehrle understood that distinction when he  
 20 read the BBA certificate, whether in draft or at all .  
 21 There is of course a question for you as a matter of  
 22 fact about whether he ever did read it anything other  
 23 than cursorily anyway.  
 24 I'm going to go on to a different document, which is  
 25 quite a long document, and I'm not going to finish it

1 before the break, but I'm making very good progress.  
 2 So, Mr Chairman, now would be an excellent time to stop  
 3 for the lunch break if that is convenient to you and the  
 4 panel.  
 5 SIR MARTIN MOORE-BICK: Yes. Well, that sounds very  
 6 sensible if you're going to start another document any  
 7 moment.  
 8 So we will take a break now. We will resume at  
 9 2 o'clock, please, and look forward to seeing you again  
 10 then. Thank you very much.  
 11 (12.57 pm)  
 12 (The short adjournment)  
 13 (2.00 pm)  
 14 SIR MARTIN MOORE-BICK: Good afternoon. Welcome back,  
 15 everyone. We are currently in the course of hearing  
 16 a presentation by Mr Millett of the Arconic documents.  
 17 So, if you're ready to continue, Mr Millett, please  
 18 do so.  
 19 MR MILLETT: Mr Chairman, I am, thank you very much.  
 20 There is one event that occurred during the time  
 21 that the BBA was assessing Reynobond for certification  
 22 in 2007, which is where we were when we left off before  
 23 the break.  
 24 Can we go first, then, to {META00001953}. This is  
 25 an Alcoa visit report, as you can see, and the visit is



1 to a company called Astrup in Oslo, Norway, and the  
 2 report is written by Gérard Sonntag. The date of the  
 3 visit is 11 to 13 September 2007. The people present  
 4 were some people from Astrup, and from Arconic you can  
 5 see who was present: Gérard Sonntag, the marketing  
 6 manager, and Didier Felder, area sales manager.

7 At point 1, if we look a little bit lower down the  
 8 document, you can see the reason for visit:

9 "Astrup organized a 3 day open days to celebrate the  
 10 150 years of the company."

11 Below that we can see that, under "General  
 12 information", Astrup is described as:

13 "... the biggest Metal and Plastic distributor in  
 14 Norway with 4 warehouses and 4 [additional] sales office  
 15 around the country."

16 That's what it says.

17 Can we look at page 2 of this report  
 18 {META00001953/2}, please. You can see a section there  
 19 called "Seminar presentations", under which it says:

20 "Each of the suppliers was invited to present two  
 21 times over the 3 days their product or a subject related  
 22 to his product."

23 Below that we see "AAP-M", and then "OTEFAL"  
 24 underneath that. That OTEFAL presentation is  
 25 a reference to a presentation given by

1 Mr Fred—Roderich Pohl, and you can see that towards the  
 2 bottom of the page, if you go about halfway down that  
 3 block of text.

4 Picking it up, it says:

5 "Mr Fred—Roderich Pohl, 'Pohl Consult  
 6 International', was during more [than] 20 years the  
 7 export manager for Alcan/Novelis FF2 and FF3 in the  
 8 Alloy 5754H42 and is working as consultant for  
 9 specification work. He write also regularly article in  
 10 different aluminium and wall cladding magazines in  
 11 different countries. The last called 'Solid Aluminium  
 12 versus ACM' was published in the 'International  
 13 ALUMINIUM Journal' in July/August 2007. He is preparing  
 14 a new book that he planned to publish for end of the  
 15 year concerning cladding solutions with painted  
 16 Aluminium."

17 Now, that's important because we get to see next  
 18 what the content of the presentation is and what  
 19 Mr Sonntag, the author of this report, says about it.

20 If we go to the bottom of page 2, we can see he  
 21 says:

22 "The presentation where he compares ACM and solid  
 23 aluminium was a very high [shock] for me from two points  
 24 of view. On one side a part of the information that he  
 25 used against technical possibilities and deflection of

1 the ACM were not true or only partly and two much  
 2 orientated on the specification of Alucobond.

3 "On the other side, the true information that he  
 4 give of the fuel power of a PE core on a project of  
 5 5000m<sup>2</sup> where he compare it to a truck of 19,000 liter  
 6 oil is very impressive and was well received by all  
 7 customers who were present during the presentation. The  
 8 arguments was also documented with pictures of the ACM  
 9 fire in the world and a movie from the twin tower in  
 10 Doha showing how quick a fire can evolutes[sic] with a  
 11 PE ACM core.

12 "All arguments were supported by the pictures who  
 13 showed a tremendous big volume of topics smoke who is  
 14 even much more dangerous than the fire himself because  
 15 in such a case a person can die from the smoke emission  
 16 within the first two or three minutes of the fire."

17 If we go down to the second—last paragraph in this  
 18 section, staying on the same page, it says this:

19 "Claude Wehrle showed me two month ago a copy on  
 20 paper from this Alcan/Novelis presentation where the  
 21 arguments were mentioned but Mr. Pohl is a very  
 22 persuasive person and the arguments are ten times much  
 23 stronger during the seminars."

24 If we now go to the conclusion in this document,  
 25 three paragraphs down, he says:

1 "Let's imagine that OTEFAL organize a lobbying  
 2 activity on the European [Parliament] and show such  
 3 a presentation in Bruxelles, the result could become  
 4 catastrophic for the ACM products. One of the arguments  
 5 from Mr. Pohl was: 'what will happen if only one  
 6 building made out PE core is in fire and will kill 60 to  
 7 70 persons, what is the responsibility of the ACM  
 8 supplier?'

9 "If we want not to take any risk for anyone and be  
 10 proud of the EHS value of Alcoa we should evaluate a new  
 11 option in our LT strategic Analysis. What could be the  
 12 financial results and impact on the market if Alcoa  
 13 decide to sale Reynobond Architecture only with an FR  
 14 core and launch it on BAU 2009. In parallel, we should  
 15 of course in this case launch a cost reduction program  
 16 to become able to produce the FR to the cost of the PE."

17 Then he signs himself off, "Gérard Sonntag,  
 18 Marketing Manager".

19 Now, that document I've read at some length.  
 20 Clearly allowances need to be made for the author's  
 21 English, but it's very clear notwithstanding that.

22 Questions which arise would include: was there any  
 23 discussion within Arconic, either before or after this  
 24 meeting, about selling only ACM with an FR core? If  
 25 there was, what happened to those discussions?

1 Specifically , was there any discussion within Arconic  
 2 about Mr Sonntag's question: what is the responsibility  
 3 of the manufacturer in the event of a fire of the type  
 4 and magnitude he describes?  
 5 We can see from the last paragraph I've just shown  
 6 you that Mr Sonntag proposed that Arconic should launch  
 7 a cost reduction programme to be able to produce the FR  
 8 to the cost of PE. The question there is whether this  
 9 meeting and the content of it, as shown by this  
 10 document, was the driver for the programme, "FR @ PE  
 11 cost", that was discussed in the evidence. Was the  
 12 background to that programme the known dangers of  
 13 PE-cored ACM identified in this paper?  
 14 If we could then turn to 2011.  
 15 We will go back with the BBA witnesses, of course,  
 16 to the BBA certificate in due course. We have already  
 17 seen quite a lot of that already anyway.  
 18 In 2011, some six years after the initial tests 5A  
 19 and 5B on Reynobond 55 PE, Arconic performed two more  
 20 European classification tests on that material. I can  
 21 start with the rivet .  
 22 As you know from test 5A, the classification  
 23 accorded to rivet in 2005 was B-s1, d0. There was  
 24 a further classification in 2011, and this is dated  
 25 9 February 2011, and it's at {ARC00000383}. You can see

1 the date of that, 9 February 2011, and if we go to  
 2 page 4 {ARC00000383/4} we can see the classification:  
 3 B-s1, d0. So that's the 2011 classification .  
 4 Can we have up at the same time test 5A from 2005,  
 5 and have again, please, page 4 {ARC00000358/4}. We can  
 6 see there that in 2005 the test 5A was B-s2, d0.  
 7 If you look at section 4.3 under "Field of  
 8 application" at the foot of each of the pages, you can  
 9 compare the two. On the right-hand side of the screen  
 10 you've got test 5A, 2005, showing in the second bullet  
 11 point under the second heading under 4.3, "Field of  
 12 application", it says:  
 13 "With a minimum air gap of 50 mm."  
 14 If you look then to the left-hand side of the  
 15 screen, and look at the 2011 classification report in  
 16 the same place, in the second bullet point, it says  
 17 again:  
 18 "With a minimum air gap of 50 mm."  
 19 So you've got -- just to summarise -- the 2005  
 20 test 5A classification B-s2, d0, and in 2011 a slight  
 21 improvement, B-s1, d0, both of which say a minimum  
 22 air gap of 50 millimetres.  
 23 Now, there is a question or line of investigation  
 24 about that air gap. Can we start looking at that by  
 25 going to Mr Wehrle's witness statement at page 19

1 {MET00053190/19}, at paragraph 64. At the end of that  
 2 paragraph, you can see it says, three lines up from the  
 3 bottom:  
 4 "It is correct to say that different air gaps and  
 5 types/thicknesses of insulation , for example, are likely  
 6 to influence the test result achieved. I had previously  
 7 used an air gap of 50 mm for some tests, but since  
 8 July 2011 I believe only air gaps of 20 mm were used."  
 9 You can see the 2011 report was February 2011.  
 10 Now, let's look at some contemporaneous documents on  
 11 that question next.  
 12 {MET00053158/184}. This is part 1 of Mr Wehrle's  
 13 exhibit run. This is the end of an email chain with  
 14 CSTB about testing later on in 2011.  
 15 If we go to the bottom of page 184, we can see  
 16 an email of 1 July 2011 from Claude Wehrle to  
 17 Maxime Bauer at the CSTB, and he says:  
 18 "Hello,  
 19 "Can you tell me how big the air gap between the  
 20 Reynobond cladding and the insulation was during the  
 21 test?"  
 22 Above that you can see Mr Bauer responds, and he  
 23 says:  
 24 "The air gap was 20 mm for all tests performed so  
 25 far. We use 30 mm rock wool."

1 Above that we can see that Mr Wehrle thanks him and  
 2 says:  
 3 "I do think that this is how the panels should be  
 4 tested, because that's how they are used."  
 5 That then raises a number of questions at this time.  
 6 First, who was responsible for designing the test set-up  
 7 in 2005 and 2011, in particular for testing the cladding  
 8 with a 50-millimetre air gap as opposed to  
 9 a 20-millimetre air gap? Did Mr Wehrle himself think  
 10 that 20-millimetre air gaps were how Reynobond panels  
 11 were typically used, and if so, was that the case in  
 12 2005 or did perhaps his understanding change between  
 13 2005 and July of 2011? Did he think that 50-millimetre  
 14 air gaps did reflect or did not reflect the typical  
 15 end use of panels? What was it about the situation that  
 16 pertained in 2005 that led him to test the panels with  
 17 a 50-millimetre air gap in that year, and indeed the  
 18 same in the February of 2011?  
 19 That leads to a broader question: if it's right that  
 20 the air gap can make a difference, and if it's right  
 21 that the 50-millimetre air gap was not realistic , then  
 22 were the tests that produced the B classifications for  
 23 PE in rivet-fix in 2005, B-s2, d0 under test 5A, and in  
 24 February 2011, B-s1, d0, truly representative of the  
 25 expected fire performance of PE-cored Reynobond in rivet

1 form?  
 2 There is some further evidence that sheds a little  
 3 bit of light on that question. After the February 2011  
 4 test, rivet—fix Reynobond never got a B classification  
 5 in European tests under EN 13501 again. Thereafter, all  
 6 the tests indicated that it was a class C.  
 7 Can we go to a bundle of unexhibited documents,  
 8 {MET00064988/129}. This is a set of documents not  
 9 exhibited to any of the Arconic witnesses' statements.  
 10 At page 129 you can see an email from Claude Wehrle  
 11 to Julie Kasyanik, who was a sales representative for  
 12 Arconic in 2016. They are discussing here fire  
 13 certification of a competitor. This is an email from  
 14 Mr Wehrle to Julie Kasyanik, and he says:  
 15 "Julie,  
 16 "This is a certif. for PE, not for FR.  
 17 "We also had a class 'B' at the time in PE, but by  
 18 'arranging' the system to pass.  
 19 And he puts the word "arranging" there in inverted  
 20 commas:  
 21 "So this report is really not a reference.  
 22 "Have a nice weekend."  
 23 Now, this email and its meaning was put to  
 24 Mr Schmidt on {Day91/76:3–6} and he was unable to assist  
 25 us. The question therefore remains outstanding: what

101

1 did Mr Wehrle mean by arranging the system to pass?  
 2 Does that mean that it was manipulated so that it would  
 3 pass or was there some other meaning to what he's saying  
 4 here? If that is correct, in what way was the  
 5 arrangement made? Specifically, was the CSTB providing  
 6 any particular advice or assistance in making the  
 7 arrangements, whatever they were, for the rivet tests to  
 8 get a B? Was anybody else assisting or advising,  
 9 for example a fabricator? Who else within Arconic knew  
 10 about this arrangement to pass, as Mr Wehrle described  
 11 it? Was this a course of conduct sanctioned by upper  
 12 management?  
 13 There is another document which may also shed light  
 14 on these questions, but it's later, it's in 2014. Can  
 15 we go to {MET00064988/64}. This is an email of  
 16 31 January 2014. If we look at the bottom of the page,  
 17 page 64, you can see that it is from a gentleman called  
 18 Gregorites Ernst to Claude Wehrle. As we will see, and  
 19 indeed have already seen, on that date, 31 January 2014,  
 20 both rivet and cassette PE were classified as class E by  
 21 the CSTB.  
 22 Now, if we follow the email chain up from page 64  
 23 through 63 to 62 {MET00064988/62}, you can see how this  
 24 works.  
 25 The question, if we follow up 62, comes from

102

1 Ernst Gregorites — I think it's Ernst Gregorites rather  
 2 than Gregorites Ernst — and he says:  
 3 "Hi Claude!  
 4 "I don't think you understood my question.  
 5 "According to the SBI test, Reynobond PE was 'B' and  
 6 now suddenly it's 'E'.  
 7 "On the one hand 'E' cannot be mounted on the facade  
 8 any longer and on the other hand I don't understand how  
 9 a core can be reclassified from 'B' to 'E'?"  
 10 The response, if one scrolls up a little bit higher,  
 11 from Claude Wehrle to Mr Gregorites is:  
 12 "Hi,  
 13 "It was always 'E' for cassettes.  
 14 "For the riveted system it was 'B' but only with  
 15 a certain rear ventilation distance.  
 16 "The new certification is now valid for both systems  
 17 (cassettes and riveted). We were asked for there to be  
 18 only one class per product, depending on the system.  
 19 "I hope it's clear. If not we can talk on Monday."  
 20 Now, this raises the obvious question whether  
 21 in fact the Euroclass B was and had always been known by  
 22 Mr Wehrle to have been achieved by using a 50—millimetre  
 23 air gap, such that in fact, when tested with the  
 24 requisite 20—millimetre air gap, it would not have  
 25 achieved a B. That's the outstanding question. One

103

1 outstanding question.  
 2 Can we next turn back to 2011 and look at what  
 3 happened with the test done by the CSTB for PE cassette  
 4 in that year.  
 5 If we go to Claude Wehrle's witness statement,  
 6 please, at page 18 {MET00053190/18}, paragraph 62 first.  
 7 At paragraph 62 he says this:  
 8 "On 29 March 2011, I sent the CSTB an e—mail with  
 9 a copy of the ' unclassified ' test report from the 2005  
 10 cassette PE test and enquired what was the best  
 11 classification that could be attained with the said  
 12 report (I enquired whether a Classification D could be  
 13 possible) (exhibited at P109). I had become aware from  
 14 discussions with either the EAA or the CSTB some time  
 15 around 2010 that other products similar to AAP SAS' PE  
 16 product had possibly shown a difference in reaction to  
 17 fire testing between the cassette and rivet variant.  
 18 I was therefore concerned to find out whether AAP's  
 19 original understanding, i.e., that the rivet variant  
 20 would perform less well, could be incorrect, and  
 21 I wished to check this position through further  
 22 testing."  
 23 So we see here that Arconic waited six years before  
 24 instructing the CSTB to perform another test on  
 25 Reynobond 55 PE. We can also see that Mr Wehrle says he

104

1 didn't even ask for a full set of the three tests. The  
 2 question we would have is: why is that? Why did he not  
 3 ask for that, and why did he wait so long?  
 4 We can also see that he asked if he could use  
 5 test 5B in order to get a class D on the PE cassette.  
 6 Now, if one puts that in context, looking at the  
 7 time — this is 2011, March 2011 — we know by this time  
 8 that Mr Wehrle is aware of fires, for example the  
 9 Bucharest fire in 2009, and in his own words how  
 10 dangerous PE can be when it comes to architecture.  
 11 That's a reference to his email of 17 July 2009 to  
 12 Claude Schmidt at {MET00053158\_P10/122}.  
 13 To add to that, you saw emails on 15 and  
 14 16 March 2010, so almost exactly a year before these  
 15 events he's describing at paragraph 62, in which  
 16 Claude Wehrle told Isabel Moyses "RB in cassette doesn't  
 17 achieve a B either", and that was something to keep, in  
 18 his words, "VERY CONFIDENTIAL". The English version of  
 19 that email is at {MET00064988/125}.  
 20 Now, in the light of the background events I've just  
 21 described from the documents, the questions that arise  
 22 are whether it was the concerns expressed in 2009 and  
 23 2010 that had prompted Mr Wehrle's concern to revisit  
 24 his original understanding that rivet would perform less  
 25 well than cassette, and whether indeed he had realised,

105

1 or at least suspected, before he decided to test  
 2 cassette again in 2011, that the cassette test 5B from  
 3 January 2005 was not a rogue result. There is a further  
 4 question whether in fact the idea that 5B was a rogue  
 5 result was ever a view genuinely held within Arconic,  
 6 and if it was, when Mr Wehrle first began to suspect  
 7 that it was unfounded.  
 8 Let's remind ourselves next about what happened in  
 9 the 2011 Reynobond 55 PE cassette test.  
 10 Can we go, please, to {MET00053158/172}. If we go  
 11 to the second email from the top of the page, we can see  
 12 that it's from Maxime Bauer of the CSTB on 29 June 2011.  
 13 Again, I think you've seen this document before, but  
 14 let's revisit it now that we have some further context.  
 15 He says:  
 16 "Hello Mr Wehrle,  
 17 "We have performed a test on your reference  
 18 'REYNOBOND PE'. Unfortunately, we stopped the test  
 19 before the end of the test.  
 20 "Note: Fall of large pieces of the small wing,  
 21 widespread fire on the surface, reaching critical values  
 22 resulting in the termination of the ongoing test  
 23 (350 kw).  
 24 "Therefore, we cannot provide you with  
 25 a classification for the cassette version.

106

1 "I propose that this project be concluded for an  
 2 amount of EUR 2297 (SBI test + cleaning costs + main  
 3 burner repair)."  
 4 So like the 5B test, the PE cassette test in 2011  
 5 was stopped for the reasons that Mr Bauer gives in this  
 6 email.  
 7 At the top of the page, if we look up at the top of  
 8 the screen there, we can see that Mr Wehrle responds on  
 9 the same morning, a few minutes later:  
 10 "Hello,  
 11 "Is this far from a 'D' classification?"  
 12 The question that arises on that document is whether  
 13 he thought at that time that it was realistic for the PE  
 14 cassette version of Reynobond 55 to obtain a D  
 15 classification at all.  
 16 Now, here is what Mr Wehrle has to say about that  
 17 test. Can we go to his witness statement, please, at  
 18 page 18 {MET00053190/18}, at paragraph 63. It's  
 19 important that you put this in the context of his  
 20 witness statement.  
 21 He says:  
 22 "In May 2011, I made all the necessary arrangements  
 23 for the CSTB to undertake tests in accordance with the  
 24 EN 13501 standard on a Reynobond 55 PE cassette variant.  
 25 The CSTB subsequently informed me that it had stopped

107

1 the test conducted in accordance with the EN 13823  
 2 standard before the end of the test period, that it  
 3 therefore could not deliver a classification and that it  
 4 proposed to close the matter at that stage. I was not  
 5 clear why this would be the case, but I was coming to  
 6 the conclusion that in actual fact the exposed edges  
 7 along the outer lines of the rivet variant may mean that  
 8 once the panel reaches a certain temperature the core  
 9 begins to melt, leading to a relatively consistent drip  
 10 of core from the panel, whereas in the cassette variant,  
 11 where the bottom of the panel may have either a single  
 12 or double return, once the panel reaches a temperature  
 13 where the core begins to melt, the core does not simply  
 14 drip out of the panel, rather it collects in the return  
 15 and continues to increase in temperature until it  
 16 reaches the point of auto-ignition, generating what is  
 17 referred to as a 'flash-over' event. I was aware that  
 18 products are often tested with the anticipated result  
 19 not being achieved, and that the testing is therefore  
 20 stopped and a classification report not produced. This  
 21 is what was being proposed by the CSTB. I did, however,  
 22 want a classification report for the cassette PE  
 23 variant, because, as things stood, I had two separate  
 24 'unclassified' test results, and now I had a potentially  
 25 different understanding about the behaviour of the

108

1 cassette variant, and I wanted this to be reflected in  
 2 an actual classification report. I therefore enquired  
 3 whether a D classification could be obtained and when  
 4 I was informed by the CSTB that this was unlikely  
 5 I requested an F classification (the worst  
 6 classification). The CSTB, however, informed me that it  
 7 could conduct the test in accordance with the EN 11925  
 8 standard, and if the product satisfied the relevant  
 9 criteria under that test it could be granted an E  
 10 classification. I confirmed this approach with the CSTB  
 11 and the classification report was subsequently received  
 12 on 12 October 2011. Relevant documents are exhibited at  
 13 P117."

14 Now, a number of questions flow from the documents  
 15 I've shown you and Mr Wehrle's evidence.

16 If there had been any shred of a view within Arconic  
 17 that test 5B was a rogue, did this test in 2011 dispel  
 18 that view? If it did not, why did it not?

19 When it came to his theory, as he's explained in  
 20 some detail in this paragraph, about why cassette  
 21 performed worse, namely -- and I summarise -- the  
 22 pooling of molten PE at the return base of the panel,  
 23 did he share that conclusion with anyone else within  
 24 Arconic? If he did, with whom? If he did not, why did  
 25 he not?

109

1 What was his reaction when discovering that PE in  
 2 cassette form was capable of producing a flashover event  
 3 before the end of the test? Did he take steps to alert  
 4 relevant customers or the BBA, or did he take any steps  
 5 to remove the BBA from circulation? If he didn't, why  
 6 was that?

7 We then come a little bit later in 2011, or indeed  
 8 starting more or less at the same time in 2011, to the  
 9 BBA's review of the BBA certificate. You will recall  
 10 that the certificate had been issued in January 2008 and  
 11 it came up for review in 2011, three years later.

12 We will look at the audits in a little bit of detail  
 13 with the BBA witnesses to come, but if I could just  
 14 summarise the position, it is as follows: the BBA did  
 15 not perform a factory inspection at Merxheim because the  
 16 BBA had contracted the CSTB to do that task. A new  
 17 review project was opened in August 2010 under a new  
 18 contract which had incorporated the original terms and  
 19 conditions. That was signed in December 2010. That's  
 20 {BBA00008044/11}. The BBA project manager at the time  
 21 requested documents to perform a review, and those  
 22 documents were provided as requested. The BBA did not  
 23 pick up the fact or were not told that test 5A only  
 24 applied to Reynobond in rivet form or that there might  
 25 be a separate test 5B which had been done on cassette.

110

1 In June 2011 the BBA produced a review report at  
 2 {MET00053158\_P16/174}, and that said that the  
 3 BBA certificate for Reynobond was valid until 2014, and  
 4 that was sent to Claude Wehrle on 1 July 2011. The  
 5 email of that date from the BBA sending that document to  
 6 Mr Wehrle is at {MET00053158\_P16/179}.

7 I just want then to remind you of a document we saw  
 8 a few minutes ago. Can we go back to the Maxime Bauer  
 9 email to Mr Wehrle of 29 June 2011. This is at  
 10 {MET00053158/172}. I have read this out to you in  
 11 detail, I won't re-read it, but you will recognise that  
 12 this was the email by which the CSTB told Mr Wehrle that  
 13 the 2011 test on PE cassette had been terminated before  
 14 the end of the test.

15 The timing is what matters here: 29 June 2011.  
 16 That's two days before 1 July 2011, when the BBA review  
 17 report comes from the BBA to Mr Wehrle.

18 So the questions raised by the timing here are,  
 19 first, whether Mr Wehrle realised that the review that  
 20 the BBA had just done and had sent to him was missing  
 21 some very important information, namely the recent  
 22 result of the CSTB Euro test on PE 55 in the cassette  
 23 variant. We've seen no evidence that Mr Wehrle told the  
 24 BBA about the results of that test in 2011, and so one  
 25 has to look at what Mr Wehrle says about that.

111

1 If we go back to his statement at paragraph 59  
 2 {MET00053190/17}, we see what he does say, because he  
 3 does address the question. He says:

4 "Given the purpose and status of the BBA certificate  
 5 as outlined above, it did not occur to me that it would  
 6 be necessary, at a later date, to provide to the BBA any  
 7 further testing information such as, for example, the  
 8 result of the 2011 EN 13501 standard tests on the  
 9 cassette variant. I had no reason to suppose that this  
 10 affected the capability of the product itself to achieve  
 11 Class 0, and I believe that if the BBA had been provided  
 12 with the result of the EN standard Class E  
 13 classification and had requested a further test under  
 14 BS 476, this would yet again have led to a Class 0  
 15 outcome. I am not aware of the detail of the contracts  
 16 between AAP SAS and the BBA. Over time,  
 17 Colin Southgate, myself and Nicolas Remy have received  
 18 BBA contract documentation, but as I organised the  
 19 certifications in numerous countries I did not know all  
 20 the contractual details relating to such. I rely on the  
 21 relevant certification body to let me know what  
 22 information it requires in order to undertake its  
 23 assessment process, I also have every confidence in the  
 24 on-going audit processes that the certification bodies  
 25 conduct."

112

1 So you can see what he says.  
 2 The second sentence there, which starts "I had no  
 3 reason to suppose that this affected the capability of  
 4 the product itself to achieve Class 0", is one which  
 5 raises questions. It raises particular questions about  
 6 how Mr Wehrle came to that conclusion, if it was one he  
 7 did come to at the time, and whether there was any  
 8 discussion of that conclusion within Arconic.  
 9 Later on in 2011 there is further relevant  
 10 communication. Can we go to {MET00053158\_P04/54}. We  
 11 can see from this document what Arconic is telling  
 12 customers at this time, namely in November 2011.  
 13 Now, this is a formal letter from Claude Wehrle to  
 14 Mr González of Endesa dated Merxheim, 23 November 2011,  
 15 and he says:  
 16 "As the fire reaction tests recently changed in  
 17 Europe, and especially for Spain, we kindly inform you  
 18 that some modifications have to be taken into  
 19 consideration for your project 'ENDESA'.  
 20 "Cladding systems for projects in Spain have to be  
 21 classified B-s3,d2 minimum (based on the EN 13501  
 22 standard)  
 23 "For the Reynobond FR, our riveted and cassette  
 24 systems are both B-s1,d0.  
 25 "For the Reynobond PE, our riveted systems are

113

1 B-s1,d0 and our cassette systems are E.  
 2 "The ENDESA project is made with cassettes,  
 3 therefore, we recommend you to use our Reynobond FR  
 4 product."  
 5 The document speaks for itself. The question on  
 6 this document is: why did Claude Wehrle not tell the BBA  
 7 what he was telling his customer, Mr González, here,  
 8 namely that the cassette PE had achieved a class E?  
 9 If we go to look on at Mr González's response of the  
 10 next day, 24 November 2011, we can see what he says.  
 11 This is at {MET00064988/34}. He says:  
 12 "Dear Claude,  
 13 "After reading your letter, as technician, there is  
 14 some issues that I would like to have a bit more clear  
 15 in order to clarify them to our con custom and the  
 16 constructors. We would like a brief explanation about  
 17 how the fire reaction test have changed, how did they  
 18 affected to the PE and why if riveted system gets  
 19 B-s1-d0, the cassette one goes straight to E what, if  
 20 you let me be sarcastic, is close to the spontaneous  
 21 combustion."  
 22 Now, we've not seen in the Inquiry records any  
 23 response from Mr Wehrle to the question posed in this  
 24 email.  
 25 From this point on, November 2011, the questions

114

1 are: did Mr Wehrle realise not only (i) that test 5B was  
 2 not a rogue, but also (ii) that the theory that the  
 3 cassette variant could be assumed to perform better than  
 4 the rivet variant because of the cassette's lack of  
 5 exposed edges was no longer tenable, if it ever was?  
 6 Was it also relevant that the Spanish regulation had  
 7 restricted the use of PE, but the UK had not changed any  
 8 regulations affecting the use of PE, or, in particular,  
 9 requiring only the use of EN 13501 classification?  
 10 We then go two years on to 2013, and an email of  
 11 April of that year.  
 12 I'd like to go to {MET00053158\_P04/123}. Now, this  
 13 is an internal email within Arconic dated 4 April 2013.  
 14 We believe that it is to the French sales team at the  
 15 time, from Hervé Marichez, copied to, among others,  
 16 Claude Wehrle and Peter Froehlich.  
 17 In the wider context, this is 4 April 2013, it's  
 18 a month or so before the 13 May 2013 email from  
 19 Debbie French which she sent to Simco and CEP and other  
 20 fabricators in the UK in the wake of the UAE fires, and  
 21 you will recall that material. It is also after  
 22 Claude Wehrle's discussions in the February of 2013 with  
 23 CSTB about classifying both rivet and cassette—fix PE to  
 24 class D, a topic he covers in his witness statement at  
 25 paragraph 65 on page 19 {MET00053190/19}.

115

1 You can see that the email is from Hervé Marichez,  
 2 as I say, and he says:  
 3 "Hi JP and everybody,  
 4 "After talking with Claude, we agreed that we (you,  
 5 Patrice, Mareva, me) must not write anything related to  
 6 fire regulations which has not been validated or issued  
 7 by Alcoa technical dept.  
 8 "Why that? After showing Acodi and Sunclear  
 9 documents that they send to specifiers and customers  
 10 (see attached), Claude advised me not to do the same  
 11 since these does involve too much our responsibility on  
 12 a 'touchy' subject.  
 13 "So I pass this info to all French sales dream team  
 14 [smiley face] so to avoid potential mistakes!"  
 15 The attachment which you can see is identified from  
 16 this email as "Classement feu d'Acodi", is at  
 17 {MET00053158\_P04/125}, so just a couple of pages on from  
 18 here.  
 19 This email raises a number of questions — that's  
 20 the attachment, and in fact it's worth looking at the  
 21 attachment while it's on the screen, because you can see  
 22 Arconic's understanding of what the equivalences were  
 23 between the Euroclasses and the French classes, and  
 24 particularly that B was equivalent to M1 and E was  
 25 equivalent to M4. You can see that on the right—hand

116

1 side it says:  
 2 "E. M4. Cassette: Reynobond PE/Alucobond  
 3 PE/Larson PE."  
 4 The questions that arise on this email are: well,  
 5 what was the touchy subject exactly? What, if anything,  
 6 was it that Mr Wehrle had instructed the French  
 7 sales team not to discuss with customers? Which  
 8 customers? And was it a specific instruction not to say  
 9 anything about fire regulation in particular?  
 10 The question for Mr Froehlich would be what he  
 11 understood by that message when he received it and what,  
 12 if anything, did he do about it.  
 13 We then come a little bit later in that year to  
 14 July 2013 when Arconic instructed the CSTB to conduct  
 15 further tests. The results of those tests were returned  
 16 in November 2013.  
 17 We've seen the document in the evidence of  
 18 Mr Schmidt, but just to remind you, can we look at  
 19 Claude Wehrle's exhibits at {MET00053158\_P02/38},  
 20 please. This is a run of emails you will have seen  
 21 before. At the very bottom of page 38 we have an email  
 22 from Benoit Forest to Philippe Vonthron at Arconic on  
 23 7 November 2013, with the results of the SBI, single  
 24 burning item, test. Just to remind you, the SBI test is  
 25 EN 13823.

117

1 He says, if we go over the page  
 2 {MET00053158\_P02/39}, that the result for the rivet—fix  
 3 PE was class C—s2, d0, and the test for the cassette  
 4 system, if you look a little lower down, said that the  
 5 test had to be stopped at 800 seconds out of  
 6 1,260 seconds for widespread ignition.  
 7 "Best possible classification : E (ignition test)."  
 8 Now, that was the third time that the cassette test  
 9 had been stopped for widespread ignition. We had  
 10 test 5B in late 2004, we had the test done in the  
 11 February of 2011, and now we've got it again in  
 12 November 2013.  
 13 Now, the class C that you can see on this page,  
 14 C—s2, d0 for PE in rivet, was not memorialised or  
 15 formalised in any final classification report as opposed  
 16 to a test report. Instead, Arconic, it appears, decided  
 17 to classify all PE—cored Reynobond, whether rivet or  
 18 cassette, as class E.  
 19 You've seen this before, I'll just show it to you  
 20 again: {MET00053158\_P04/135}. This is the CSTB  
 21 classification report re—issue dated 31 January 2014,  
 22 and you'll recall what's noted at the bottom of that  
 23 page, if we just scroll down to the bottom of the page.  
 24 It's a cancellation and rewrite, essentially, of the  
 25 February 2011 and test 5A from January 2005.

118

1 So that's how matters stood as at 31 January 2014.  
 2 Both rivet and cassette were class E.  
 3 We then move through 2014. The next thing is the  
 4 email of 3 February 2014, which was sent by Mr Wehrle to  
 5 RAF liste commerciale externe, among others, informing  
 6 the sales representatives in various European countries  
 7 that the new classification for Reynobond Architecture  
 8 in PE was class E.  
 9 We looked at that document with Arconic witnesses  
 10 who gave evidence. There is no evidence that we have  
 11 seen that Deborah French for the UK sent that  
 12 information to her UK customers. For your note, her  
 13 evidence about this is at {Day88/138:2} and  
 14 {Day88/140:12}. She accepted that she would have read  
 15 that email, and she didn't forward it, and I don't want  
 16 to paraphrase her evidence, but you have her evidence  
 17 about that. But that's the context of this event in the  
 18 wider history.  
 19 Let's then look at the communications in the months  
 20 after the 3 February 2014 email, and specifically what  
 21 happened in relation to a project called Woodberry Down,  
 22 a residential high—rise property in North London.  
 23 Can we go to {MET00064988/97}, please. On page 97  
 24 here, we see an email dated 6 March 2014 from  
 25 a Mr Steeve Burger of Arconic to Michael Graf of

119

1 Wittenauer in relation to "Woodberry down  
 2 London/REYNOBOND core selection".  
 3 If you go to page 98 {MET00064988/98}, please,  
 4 first, you can see that Steeve Burger is an area sales  
 5 manager for Alcoa in Germany.  
 6 If we go back to where we were, page 97  
 7 {MET00064988/97}, he says:  
 8 "Hello Mr. Graf  
 9 "As discussed over the telephone: It is accurate, in  
 10 England a PE core is enough (because PE and FR have the  
 11 same test requirements)."  
 12 At page 88 of this email run {MET00064988/88}, if  
 13 you just dot back to that, we can see that attached to  
 14 the original German version of this email — because  
 15 what I've shown you is an English translation — there  
 16 is a list of fire classifications showing that both PE  
 17 and FR have class 0 in the UK. You can see there  
 18 Great Britain, and both PE and FR are said to have  
 19 passed both part 6 and part 7 and therefore have  
 20 class 0.  
 21 If we go to page 96 in the same exhibit run  
 22 {MET00064988/96}, we can see what happens to the email  
 23 from Steeve Burger. It is forwarded to a number of  
 24 people in the Lindner Group from Michael Graf, and the  
 25 Lindner Group appear to have been the façade specialists

120

1 on the Woodberry Down project.  
 2 If we go to the bottom half of that page, you can  
 3 see that Mr Graf of Wittenauer says to Mr Eigner of  
 4 Lindner, in the first paragraph, "Fire protection":  
 5 "Reynobond offers 2 different 'core materials'. On  
 6 the one hand, a PE core, which in Germany qualifies for  
 7 the classification B2 (normally flammable). On the  
 8 other hand, the FR core, which in Germany qualifies as  
 9 B1 (hardly flammable). The FR core is, in principle,  
 10 also made of PE material, which, however, is mixed with  
 11 fire retardant substances and thus qualifies as B1. In  
 12 England, according to Alcoa, even the slightly cheaper  
 13 PE core would meet the fire protection requirements. To  
 14 what extent this makes sense, would have to be  
 15 coordinated with the customer or the authorities."  
 16 Now, Mr Dobmeier of the Lindner Group takes this  
 17 up — because he gets this email from Mr Eigner, as you  
 18 see a little bit higher up the page — with Arconic. If  
 19 we scroll slowly up the page you can see that the email  
 20 that I've just read out to you to Mr Eigner gets sent to  
 21 Mr Dobmeier, also of Lindner, and then if we scroll on  
 22 up to page 95 {MET00064988/95}, we can see that he comes  
 23 back to Steeve Burger on 4 April 2014, and he says:  
 24 "Dear Mr Burger,  
 25 "For the construction project Woodberry Down in

121

1 London you have sent us the attached documents.  
 2 "Including the excerpt from the Class 0 summary  
 3 report (4 pages)."  
 4 Just note the four pages there.  
 5 "For full supporting documentation of the materials  
 6 used by us, I would like to ask you to send me the full  
 7 report (9 pages), please.  
 8 "In addition, we need the supporting documents  
 9 322844 and 322845 to account for the products to our  
 10 building contractor.  
 11 "This summary should be read in conjunction with,  
 12 and not accepted as a substitute for, the Exova  
 13 [Warringtonfire] test reports No's 322844 and 322845.  
 14 Those test reports may include additional information  
 15 which may be relevant to the assessment of the potential  
 16 fire hazard of the product."  
 17 Now, we can tell from those certificate references  
 18 that the Lindner Group was provided with the 2012  
 19 classification reports for Reynobond 55 with an FR core  
 20 done under BS 476-6 and 7 dated 5 November 2012. Those  
 21 are at {ARC00000610} and {ARC00000608} respectively. We  
 22 looked at those with the Arconic witnesses briefly. So  
 23 that's what gets sent to them: the 2012 classification  
 24 reports for Reynobond 55 with an FR core.  
 25 If we go up to page 94 {MET00064988/94}, and look at

122

1 the bottom half of the page, we can see how Mr Burger  
 2 responds to Mr Dobmeier. He says:  
 3 "Thank you for your message.  
 4 "After consultation with our technical department,  
 5 I unfortunately have to inform you that we are not  
 6 permitted to provide you with the full version of the  
 7 'Class 0 summary report'.  
 8 "This document does indeed contain some information  
 9 which is owned by Alcoa (such as secrets regarding the  
 10 names of the supplier, material specifications, etc.).  
 11 "The same statement applies to the reports No.  
 12 322844 and 322845.  
 13 "Other manufacturers only publish the results  
 14 (classification) and not the full reports as well.  
 15 "If you have further questions on this subject,  
 16 please do not hesitate to contact our Mr. Claude WEHRLE  
 17 (Head of Technical Dept.) ..."  
 18 And gives a number.  
 19 Now, again, you can see the references there to  
 20 322844 and 322845. Those are the 2012 FR tests, not PE.  
 21 If we go on up then to page 93 in the same email run  
 22 {MET00064988/93}, Mr Dobmeier responds on the same day,  
 23 and he says:  
 24 "Dear Mr. Burger,  
 25 "Of course, I understand that your company does not

123

1 want to hand over the test report.  
 2 "However, you also want your product to be used and  
 3 our duty is to account for the product with regard to  
 4 the building contractor. Moreover, in contrast to the  
 5 opinion of your technical department, you are only  
 6 allowed to publish the report in its entirety. Every  
 7 classification report provides for this, as does your  
 8 report:  
 9 "This version of the report has been produced from a  
 10 .pdf format electronic file that has been provided by  
 11 Exova Warringtonfire to the sponsor of the report and  
 12 must only be reproduced in full. Extracts or  
 13 abridgements of reports must not be published without  
 14 permission of Exova Warringtonfire.  
 15 "As far as I know, there are no secrets in the  
 16 classification report and your competitors will also  
 17 send us the complete documents.  
 18 "We will not forward this information and will not  
 19 start recreating a sandwich panel.  
 20 "For this reason, I ask you once again to send me  
 21 the complete test and classification report."  
 22 Above that on page 93 we can see Mr Wehrle's  
 23 response — it's very brief — also of 4 April 2014,  
 24 copied to Steeve Burger:  
 25 "Dear Mr Dobmeier,

124



1 "I have tried to call you but could not reach you.  
 2 "Would it please be possible that we talk about it  
 3 together?  
 4 "When would you have time for it?  
 5 "Regards,  
 6 "Claude."  
 7 Let's go to {ARC00000609}, please. We can see that  
 8 this is the report they were discussing, the class 0  
 9 summary report, 5 November 2012, and if we go to the  
 10 fourth page, page 4 of this document {ARC00000609/4},  
 11 you will see that that is the last page. At the very  
 12 bottom of it, again you have the date, but you can see  
 13 just above the date, 5 November 2012, it says,  
 14 "Page No.: 4 of 9". So that's the four pages that got  
 15 sent.  
 16 We do have, of course, a copy of the full report,  
 17 the nine pages. Let's go to that. That's at  
 18 {EXO00001948}. They're not exhibited by an Arconic  
 19 witness; this is from Exova's disclosure. If you look  
 20 at page 4 {EXO00001948/4}, under "Introduction", you can  
 21 see there that it summarises the tests that Mr Dobmeier  
 22 referred to, numbers 322844 and 322845. You can see  
 23 them there.  
 24 Towards the middle of the page, at the blue header  
 25 "Introduction", you can see the penultimate paragraph

125

1 there, which starts "This summary should be read in  
 2 conjunction with", is exactly as Mr Dobmeier has copied  
 3 it or perhaps screenshotted it into his email which we  
 4 saw earlier.  
 5 The questions which arise on this email run and this  
 6 event, if I can call it that, are: did Arconic cut down  
 7 reports like this routinely? Was it their policy to  
 8 send only cut-down reports unless pressed by customers  
 9 for the full report? Was that the case even where the  
 10 testing house, such as Exova in this instance, required  
 11 that the full report be provided?  
 12 If we look at page 2 of the abridged four-page  
 13 version, if we go back to that — I say the abridged  
 14 four-page version; I mean the four-page abridged version  
 15 of the nine-page version at {ARC00000609/2} — you can  
 16 see that there is a table, and in the first row you can  
 17 see that the product is described as, under "Product  
 18 reference", Reynobond FR.  
 19 The original question posed by Lindner was whether  
 20 PE core was enough in England, that's what Steeve Burger  
 21 was asked. This is a report about FR. It's not  
 22 a report about PE.  
 23 The questions which arise on this whole exchange,  
 24 beyond those I've identified already, are: why Arconic  
 25 sent a report on FR core when the question was about PE

126

1 core, and was all the available information sent to the  
 2 client in order to assist him with the decision he had  
 3 to make? The request was for information about which  
 4 core of Reynobond could be used in the UK. If all the  
 5 material in Arconic's possession was not sent to that  
 6 customer to enable him to make that decision, the  
 7 question is: why not?  
 8 Specifically, was this customer told that there was  
 9 no test report supporting the classification of  
 10 Reynobond 55 PE to class 0? If he wasn't told that, is  
 11 there a reason why he wasn't told that?  
 12 We next go back a month or so to the October of 2014  
 13 and further European tests run at that time.  
 14 Can we look, please, at Mr Wehrle's statement at  
 15 page 21 {MET00053190/21}, paragraph 70. He says:  
 16 "The next EN 13501 testing that I organised on  
 17 Reynobond 55 PE was later in 2014. It had become clear  
 18 from discussions within AAP SAS and the wider market  
 19 that, there was a desire to again have separate  
 20 classification reports for the PE rivet and cassette  
 21 variants to more accurately reflect the classifications  
 22 that each had in practice obtained."  
 23 Then he goes on to explain how to achieve that goal.  
 24 As you've heard already, the rivet variant of PE was  
 25 tested and classified C-s2, d0 in October 2014 in

127

1 various colours, and from that point on, all, or at  
 2 least the various colours of Reynobond PE rivet, were  
 3 class C.  
 4 Just to remind you, before that, from  
 5 31 January 2014, the class was class E for both rivet  
 6 and cassette variants, and you saw the CSTB  
 7 classification report re-issue of 31 January 2014 a few  
 8 moments ago.  
 9 So we have this period during 2014, from 31 January  
 10 until October of that year, when Reynobond PE in both  
 11 fixings was a class E. In October, rivet achieves  
 12 a class C-s2, d0. The references for that are at  
 13 {ARC00000397} for the rivet, and for the cassette  
 14 {MET00053158\_P02/105}.  
 15 It's probably worth just putting the rivet report up  
 16 on the screen, {ARC00000397}, please. You can see that  
 17 this is a classification report under EN 13501,  
 18 commercial brand: Reynobond 55 PE riveted system, date:  
 19 December 4, 2014. It's done pursuant to a test done in  
 20 October 2014. If you look at the classification on  
 21 page 4 {ARC00000397/4}, you can see that it's C-s2, d0.  
 22 "Field of application", below that, under 4.3, last  
 23 bullet point, "Various colours".  
 24 Now, the questions that arise at or by this point,  
 25 the end of 2014 — as I say, the test was in October,

128

1 this classification report is dated 4 December 2014 —  
 2 are, among other things, about the motivations for this  
 3 further reclassification : who was it in the wider market  
 4 that had a desire for separate classification of rivet  
 5 as opposed to cassette PE, according to Mr Wehrle?  
 6 Where was that desire coming from? Was there also  
 7 perhaps a desire within Arconic to have separate  
 8 classifications ? If so, who was desiring that? What  
 9 was the driver for this change? Was it commercial, or  
 10 was it technical, or was it both in varying degrees?  
 11 Now, that brings us to the end of 2014.  
 12 One can look across to what was happening at  
 13 Grenfell Tower at this point. You've seen the documents  
 14 in Module 1, and when Deborah French gave evidence to  
 15 the Inquiry, and we know that she sent the  
 16 BBA certificate to Harley on 23 April 2014, under  
 17 an email with the reference {CEP00000281}. That  
 18 certificate said that Reynobond 55 PE was classified as  
 19 Euroclass B.  
 20 We know that as at 23 April 2014, Reynobond 55 PE  
 21 was class E in any fixing system, rivet or cassette, as  
 22 a result of the certification issued on 31 January 2014,  
 23 which rewrote, among other things, test 5A.  
 24 So when the planners approved Reynobond PE  
 25 cassette—fix, as they did at the end of July 2014

129

1 informally and by the end of September 2014 formally,  
 2 Reynobond PE in cassette—fix was a class E, and had  
 3 always been, and rivet was also a class E.  
 4 After the reclassification on 4 December 2014, the  
 5 cassette remained class E, rivet was class C, C—s2, d0;  
 6 therefore, neither of them met the EN 13501  
 7 classification in ADB.  
 8 Now, for all that happened in 2014 on the  
 9 Grenfell Tower project, there was no order for Reynobond  
 10 in 2014. That did not in fact happen until March 2015.  
 11 Let's turn to that year.  
 12 At the end of 2014 we know that Deborah French left  
 13 Arconic and Vince Meakins started in May 2015, and in  
 14 the interim Mr Froehlich, assisted by  
 15 Gwenaelle Derrendinger, managed UK sales.  
 16 Let's look then now at what Arconic knew internally  
 17 about the Grenfell Tower project.  
 18 We start on this topic by looking at  
 19 Gwenaelle Derrendinger's exhibit 1 at {MET00053159/86}.  
 20 This is an email which appears to be automatically  
 21 generated by Arconic's CRM or customer relation  
 22 management database. I've taken that from the email  
 23 address at the very top of the screen,  
 24 donotreply@crmondemand.com.  
 25 This email is dated Thursday, 10 April 2014. It's

130

1 sent to Gwenaelle Derrendinger, subject, "Labo Request  
 2 Client 'Harley Curtain Walling' créée par  
 3 'Gwenaelle Derrendinger 04/10/2014'" — that must be  
 4 10 April 2014 — "is Submitted".  
 5 The first line of the text you can see says:  
 6 "Subject ...: Grenfell Tower project.  
 7 "Client ...: Harley Curtain Walling.  
 8 "Contact ...: Mark Harris.  
 9 "Use ...: Reynobond 55.  
 10 "Transformation mode ...: Cassettes."  
 11 Questions arising on that document: did the mode of  
 12 fabrication have to be entered into the CRM, as we can  
 13 see it has been here, in order to generate an order?  
 14 Did somebody have to manually enter the "Transformation  
 15 mode: Cassettes" into the CRM field? If they did have  
 16 to enter that manually, who would have put "cassettes"  
 17 in this document? Is it right that Arconic, as a result  
 18 of this system, could know in any given case the fixing  
 19 method for any given project? And is it right that in  
 20 this case Arconic did know that Reynobond 55 in cassette  
 21 form was going to go on to Grenfell Tower project if the  
 22 order was followed through?  
 23 Deborah French gave evidence about this and told  
 24 the Inquiry that she believed that this document would  
 25 have been generated by Gwenaelle Derrendinger. That's

131

1 French at {Day88/76:16—17}. If that is correct,  
 2 questions arising are how Ms Derrendinger would have  
 3 known to generate those details, and in particular the  
 4 fabrication mode, cassette, and whether she would have  
 5 been doing so on instructions from somebody else, such  
 6 as Deborah French or perhaps Peter Froehlich or  
 7 perhaps — well, one doesn't know.  
 8 Let's then pursue a little further the quotations  
 9 and the order documents for Grenfell Tower.  
 10 Can we go to Gwenaelle Derrendinger's witness  
 11 statement at {MET00053191/36}. At paragraph 104 she  
 12 says this:  
 13 "On 3 March 2015, I sent an email to Neil Wilson  
 14 (CEP) (copied to Peter Froehlich) attaching a formal  
 15 quotation for the Grenfell Tower project addressed to  
 16 CEP with reference 2015—8411 1. In the email, I refer  
 17 to a telephone call with Mr Wilson earlier that day.  
 18 I do not remember the details of that call, but  
 19 Mr Wilson would have asked me to produce a quotation and  
 20 provided all the details that I needed in order to  
 21 generate it. I do not remember whether the core was  
 22 discussed during this call or subsequently with Peter.  
 23 However, it was a UK project and, unless the customer  
 24 told me that they wanted FR, I would have quoted for PE.  
 25 A copy of this email and the quotation appear from

132

1 page 278 to 281 of GD/1."  
 2 Can we look at the quotation she refers to, please.  
 3 This is at {ARC0000010}. We can see that it bears  
 4 a quotation number 2015–8411 1, and it's dated  
 5 3 March 2015 if you look a little bit lower down in the  
 6 same part of the document. It says:  
 7 "Position 1: Reynobond Aluminium Composite Material  
 8 Architecture RB55."  
 9 If you look a little bit lower down, it says:  
 10 "Feature: Standard.  
 11 "Coating Top side: DG5000 2 coat(s) Smoke Silver  
 12 Metallic E9107S."  
 13 Then there is a price below that: £23.25 per metre.  
 14 One question on this document is whether PE was  
 15 requested by CEP specifically or whether it was  
 16 Arconic's assumption that PE was required because CEP  
 17 had not told Arconic that they wanted FR.  
 18 I say it's CEP; that is because immediately  
 19 underneath the quotation number, if you go back to the  
 20 top of the screen, it is CEP to whom the quotation is  
 21 addressed. You can see that immediately under the date,  
 22 3 March.  
 23 Now, we know that this eventually led to an order,  
 24 and let's look at some more documents on that.  
 25 Mr Chairman, I note the time.

133

1 SIR MARTIN MOORE–BICK: Yes.  
 2 MR MILLETT: Perhaps it's a convenient moment for a break  
 3 before we go on to look at the documents that do lead to  
 4 this order.  
 5 SIR MARTIN MOORE–BICK: Yes. Well, that's a good idea.  
 6 How are you getting on? Quite well, I sense.  
 7 MR MILLETT: Yes, absolutely. I shall be finished  
 8 comfortably before the usual time for breaking at 4.30.  
 9 SIR MARTIN MOORE–BICK: Well, we will take a break now. We  
 10 will resume at 3.30 and see what you have in store for  
 11 us then. All right?  
 12 3.30, then, please. Thank you very much.  
 13 (3.15 pm)  
 14 (A short break)  
 15 (3.30 pm)  
 16 SIR MARTIN MOORE–BICK: Welcome back, everyone. Mr Millett  
 17 is in the course of presenting the Arconic documents,  
 18 and I think he is ready to continue.  
 19 Mr Millett, if you're ready, when it suits you.  
 20 MR MILLETT: Thank you, Mr Chairman.  
 21 Can we go to Peter Froehlich's exhibit at page 28,  
 22 {MET00053161/28}. This is an email from  
 23 Gwenaelle Derrendinger to Peter Froehlich. It's dated  
 24 13 March 2015, and the subject is "Projects with CEP  
 25 UK". She says:

134

1 "I just spoke with Neil Wilson from CEP UK by phone  
 2 and here are interesting news to share with you."  
 3 If you look at the second bullet point down, she  
 4 says:  
 5 "Project Grenfell Tower: 3000 m2 in RB 55 PE (4 mm)  
 6 1750 mm width Smoke Silver metallic color: they won the  
 7 project (total project represents 6000 m2 according to  
 8 him). So, we should get the PO for it shortly."  
 9 Note that it's PE there that she refers to.  
 10 So we then go to the order documents at  
 11 {MET00053161/40}, so the same exhibit run but page 40.  
 12 Here is the purchase order from CEP, and you can see  
 13 that the original project order date is 18 March 2015,  
 14 purchase order number ARC5213/A/023, as you can see at  
 15 the top right—hand corner there.  
 16 Under "Description", it says the order is for  
 17 Reynobond 4 millimetres by 1,750 millimetres. There is  
 18 no mention on this document of the fact that what is  
 19 being ordered is Reynobond 55 with a PE core. It's  
 20 silent on the core. It's just described as E9107S smoke  
 21 silver metallic.  
 22 Now let's go to the email at {MET00053161/31}, so  
 23 nine pages back in the same exhibit run. This is  
 24 an email from CEP to Gwenaelle Derrendinger on 18 March,  
 25 so same day, and it says "Deb", even though it's sent to

135

1 Gwenaelle Derrendinger, and that may be a reference to  
 2 Deborah Talbot, who is copied in on this, and she is the  
 3 CEP person:  
 4 "Please can you order the following, Smoke Silver  
 5 Metallic 4mm thick Reynobond, as attached quotation."  
 6 If you cast your eye down those, there are two sets  
 7 of orders, both to CEP, of different quantities, same  
 8 totals but slightly different make-up, and the total  
 9 price:  
 10 "I've split the requirement into two equal  
 11 call-offs."  
 12 The key point about this document is that there is  
 13 no mention here either of PE core. So the purchase  
 14 order doesn't have PE core, nor does the email raising  
 15 the order.  
 16 But if we look at the order acknowledgement at  
 17 {ARC00000149}, we see that it does identify the core as  
 18 PE. This is dated 18 March 2015, and this is an Alcoa  
 19 document, so this is the other side of the transaction.  
 20 This is what Arconic generates in response to the  
 21 purchase order which we've seen. You can see there that  
 22 in relation to the order, PE is identified, and you can  
 23 see that in the two major columns in the middle of the  
 24 page:  
 25 "REYNOBOND 55 Smoke Silver Metallic E9107S DG5000

136

1 Washcoat.”  
 2 But just above it, it says “PE”, in the case of each  
 3 element of this order, “PE”. One has to read across the  
 4 two columns, the “Laquage” columns, “Laquage recto” and  
 5 “Laquage verso”, so top side coating and reverse side  
 6 coating. There is no distinction between the two in the  
 7 way in which this product is identified in this order  
 8 acknowledgement so far as we can see from this document.  
 9 Let’s go back to the quotation at {ARC00000010},  
 10 which we saw earlier on before the break. If we go  
 11 right to the bottom of page 1, I showed you the price  
 12 but what I didn’t show you was the names of those at  
 13 Arconic: it’s Gwenaelle Derrendinger and  
 14 Peter Froehlich.  
 15 Now, Mr Froehlich explains in his statement —  
 16 I don’t think there’s a need to see it, it’s  
 17 paragraph 40.1 on page 12 {MET00053197/12} — that his  
 18 name is on this purchase order because there was no UK  
 19 salesperson at the time, and that the price quoted,  
 20 £23.25 per square metre, was lower than he was able to  
 21 approve, so this might also have gone to Alain Flacon,  
 22 who was the director of sales and marketing at the time  
 23 for his approval.  
 24 The questions that arise on this document run I’ve  
 25 shown you are: whether anybody in the inside sales team

1 at Arconic would actually consider or did actually  
 2 consider whether the order was appropriate for this  
 3 client, and indeed for any client, and if so, who would  
 4 that person be? Was there any process within Arconic  
 5 for ensuring that PE was suitable for Grenfell Tower,  
 6 particularly as Arconic knew and recorded that the  
 7 intended fixing was to be cassette?  
 8 Now, 2015 was a year when the existence of the  
 9 Lacrosse fire in Australia came to the attention of  
 10 Arconic, and I’m going to show you one or two pictures,  
 11 photographs and other things, which show fire in tall  
 12 buildings, and I ought to give a trigger warning for  
 13 anybody who finds that too difficult to see. They won’t  
 14 come for a few minutes yet, so people have time to avert  
 15 themselves.  
 16 At this time, as I say, Arconic was told about  
 17 a cladding fire which had occurred in the  
 18 Lacrosse Building in Melbourne. The fire itself had  
 19 broken out on the evening of 24 November 2014.  
 20 In the April and again in the June 2015,  
 21 a post—incident analysis report of the fire done by  
 22 an outfit called MFB was sent to several people within  
 23 Arconic. Those people included Alain Flacon,  
 24 Claude Wehrle, and Gwenaelle Derrendinger.  
 25 Can we go first to {MET00053159/404}. This is

1 an email from John Cobb at Symonite in New Zealand to  
 2 Gwenaelle Derrendinger and Alain Flacon at Arconic. He  
 3 attaches the post—incident analysis at Lacrosse. He  
 4 says:  
 5 “Hi Gwen and Alain  
 6 “I have attached a fire report for a building that  
 7 caught fire in Melbourne. As you can see it is pretty  
 8 scathing of Alucobest, but also ACM in general. As you  
 9 know we only use your FR panel. Would it be possible to  
 10 send me all your current fire test documentation and any  
 11 material we can use to defend the impending criticism  
 12 from local media.”  
 13 Can we go to {MET00053158\_P10/183}. This is  
 14 an email, at the top of the screen, from Brad Woods to  
 15 Claude Wehrle, and it attaches the post—incident  
 16 analysis Lacrosse Docklands report, and he says:  
 17 “Hi Claude,  
 18 “This is the fire report incident from Melbourne  
 19 that I have been talking about.”  
 20 Brad Woods appears to be some kind of design or  
 21 cladding professional at Architectural Glass &  
 22 Cladding Pty Ltd in New South Wales. So he sends that  
 23 to Mr Wehrle. Also you can see it’s sent to  
 24 Alain Flacon, Gwenaelle Derrendinger and Julie Kasyanik  
 25 at Arconic.

1 Can we then look at {MET00053158\_P11/113}. This is  
 2 an email from Claude Wehrle to CSTB, Martial Bonhomme  
 3 and Gildas Creach, subject “Feu en Australie”, “Fire in  
 4 Australia”, post—incident analysis Lacrosse Docklands:  
 5 “Hello,  
 6 “Please find attached a very interesting report that  
 7 I would like to share with you.”  
 8 It’s forwarded also to Frank Ritter of 3A on the  
 9 same day asking whether he had already seen it. There’s  
 10 no need to turn up the reference, but it’s at  
 11 {MET00053158\_P12/41}.  
 12 Let’s look at the report itself. This is at  
 13 {MET00053158\_P12/42}. This is a front page, internal  
 14 front page, of the report produced by MFB into the  
 15 Lacrosse Docklands fire, post—incident analysis report,  
 16 and you can see that MFB are based in Richmond,  
 17 Victoria, I think one can see at the bottom left—hand  
 18 corner.  
 19 If we go to page 65 of the exhibit  
 20 {MET00053158\_P12/65}, we can see what is said. The  
 21 highlighted points are highlighted in the document we  
 22 have, but towards the bottom of the screen it says:  
 23 “Importantly, the MFB is not aware of any competitor  
 24 aluminium/polyethylene panel product which has been  
 25 successful in being determined as non—combustible when

1 tested under AS 1530.1:1994 – Combustibility Test for  
 2 Materials.”  
 3 That’s the Australian standard at the time:  
 4 “As mentioned elsewhere in this report many  
 5 competitor products have however gained a Certificate of  
 6 Conformity for their use under the ABCB – CodeMark  
 7 Scheme based on alternative test results.”  
 8 If we go to page 67 of this document  
 9 {MET00053158\_P12/67}, we can see a little bit more  
 10 detail. Under section 6.1:  
 11 “External Wall Cladding (Alucobest) Rapid  
 12 fire spread.  
 13 “MFB Comment:  
 14 “First–hand accounts from attending MFB  
 15 fire–fighters and residents of the building, describe  
 16 the fire as appearing to be associated directly with the  
 17 façade of the building rather than the combustible  
 18 contents and storage on the external balconies. Burning  
 19 and flaming facades on high–rise buildings is not  
 20 a common phenomenon witnessed by the MFB and is of  
 21 genuine concern. Of even greater concern is the speed  
 22 and intensity of the fire spread.”  
 23 Then there is a photograph of the rapid vertical  
 24 fire spread only 4 minutes after level 8 sprinkler  
 25 activation.

141

1 Then if you look a little bit lower down on the same  
 2 page, you see the last paragraph:  
 3 “From the timeline described above, it is reasonable  
 4 to derive external vertical fire spread occurred from  
 5 the 8th floor to the roof above the 21st floor within  
 6 10 to 15 minutes, penetrating the adjacent internal  
 7 rooms on all floors. In the case examined in this  
 8 report, the upward vertical spread of fire was  
 9 restricted only by the height of the building. If the  
 10 building and the construction of the external walls  
 11 continued to a greater height of upward of 21 storeys,  
 12 it is highly probable fire spread would have continued  
 13 beyond 21 storeys.”  
 14 Looking at page 68 {MET00053158\_P12/68}, can we look  
 15 at the second and fourth paragraphs on that page. The  
 16 second paragraph says:  
 17 “In different circumstances and in contrast to the  
 18 outcomes of this fire event, we may have witnessed  
 19 internal fire growth and spread, established over  
 20 16 plus levels, aided by high easterly winds back into  
 21 the face of the building. This would be an extremely  
 22 high challenge event for safe building evacuation and  
 23 effective fire brigade intervention.”  
 24 Then the fourth paragraph says:  
 25 “The fire resulted in internal ignition occurrences

142

1 on all floors where external fire spread occurred.  
 2 Simultaneous fire incidence over many floors at heights  
 3 possibly well beyond the external reach capabilities of  
 4 the attending Brigade, is an extremely challenging  
 5 scenario for successful Fire Brigade intervention.  
 6 Based on the observations of the fire incident the Chief  
 7 Officer believes that the building solution does not  
 8 incorporate elements to the degree necessary to avoid  
 9 the spread of fire.”  
 10 Still in part 12 of this exhibit, as we’re in, can  
 11 we go to page 144 {MET00053158\_P12/144}, please. This  
 12 is appendix 12 to the MFB analysis report on the  
 13 Lacrosse fire in November 2014, which sets out a number  
 14 of other cladding fires around the world, and some of  
 15 them will be by now familiar to most people.  
 16 On page 144 itself we can see The Torch Tower in  
 17 Dubai, 21 February 2015; the Mermoz Tower in Roubaix in  
 18 France in 2012, that’s familiar to you.  
 19 Page 145 {MET00053158\_P12/145}, the Al Tayer Tower  
 20 in Sharjah in 2012, you can see metal composite  
 21 cladding, second bullet point down:  
 22 “Aluminium/polyethylene composite panel façade.”  
 23 The Saif Belhasa Building in Tecom in Dubai, second  
 24 bullet point:  
 25 “Aluminium/polyethylene composite panel façade.”

143

1 At the next page, 146 {MET00053158\_P12/146},  
 2 Tamweel Tower, Dubai, 2012, you can see the picture.  
 3 Second bullet point:  
 4 “Aluminium/polyethylene composite panel façade.”  
 5 Underneath that, Wooshin Golden Suites, Busan,  
 6 South Korea, you can see the photograph of that fire.  
 7 Second bullet point down:  
 8 “Aluminium/polyethylene composite panel façade.”  
 9 Over the next page, page 147 {MET00053158\_P12/147},  
 10 Water Club Tower, Atlantic City, USA, and there is  
 11 a photograph there of that fire. Second bullet point  
 12 down:  
 13 “Aluminium/polyethylene composite panel façade.”  
 14 In the text on page 147 itself underneath that:  
 15 “What is evident from the photos and descriptions  
 16 above is the rapid and extensive vertical fire spread up  
 17 and down the buildings in direct correlation with the  
 18 fire at 673–683 La Trobe Street Docklands [Lacrosse].  
 19 Whilst the brand and make of the panels are not  
 20 identified in the report, they would all appear to be of  
 21 very similar material and construction to the material  
 22 installed in the façade of the subject building.  
 23 “Also, the fire location in almost all cases is  
 24 generally on a configuration of the façade where  
 25 internal returns, channels and/or balconies are present.

144

1 This is perhaps attributed to the higher incidence of  
 2 ignition sources on balconies and the retention of heat  
 3 in channels and returns in the form and shape of the  
 4 facade rather than on flat plane areas of facades where  
 5 loss of heat straight to the atmosphere may occur.”  
 6 That I don’t think needs any comment, that report.  
 7 You can see how it comes in to Arconic.  
 8 At the same time, in early 2015, Arconic changed the  
 9 core colour of PE from translucent to black. I don’t  
 10 need to go into the details of that other than to give  
 11 you some documentary references.  
 12 There was a notification to customers and to the  
 13 CSTB, but not to BBA. Documents to look at would be the  
 14 CSTB notification at {MET00053158\_P02/128}; customers  
 15 being informed for example by Peter Froehlich  
 16 {MET00053161/1}; CEP were told, {CEP00000547},  
 17 {CEP00007141} and {CEP00054338}; Genius Facades being  
 18 told the same thing at {MET00053161/8}; and Argonaut,  
 19 another of Arconic’s UK fabricators, at {MET00053161/9}.  
 20 There was another fire in October 2015. This is in  
 21 Riyadh in Saudi Arabia at the King Fahd Medical Centre.  
 22 Again, I should give the trigger warning: we will be  
 23 showing pictures of buildings damaged by fire, if not  
 24 in fact on fire .  
 25 If we can put {MET00053158\_P10/168} and

145

1 {MET00053158\_P10/169} up together, please, simply  
 2 because it’s easier to read.  
 3 At the bottom of 168, this is an email from  
 4 Nazih Chaoul on Wednesday, 14 October 2015 to  
 5 Hafid Asserrar, and the subject is, "Fire in king fahed  
 6 medical center riyadh ALUCOBOND FR":  
 7 "Find the attached pictures."  
 8 Then they’re attached.  
 9 You can see the pictures a little earlier on in the  
 10 exhibit run at pages 164 to 166, if we can quickly look  
 11 at those. 164, then 165, then 166. This is the fire  
 12 damage done at the King Fahd Medical Centre in Riyadh  
 13 using Alucobond.  
 14 If we go to 168 {MET00053158\_P10/168}, please, we  
 15 can see that the email, which had come from the source  
 16 I showed you, makes its way to Claude Wehrle, looking up  
 17 the email chain. It is an email from Claude Wehrle back  
 18 to Hafid Asserrar, who I should have said was at Alcoa,  
 19 also to Alain Flacon and Serge Wahler, 16 October 2015:  
 20 "FR showed a very good behaviour.  
 21 "In PE, the fire would have spread over the entire  
 22 height of the tower, while in this case only the area  
 23 near the fire is affected.  
 24 "Long Live FR ..."  
 25 And then there is a colon, a dash and a closed

146

1 bracket, which is likely , I think one can see, a smiley  
 2 face.  
 3 We can see that Claude Wehrle does not appear to  
 4 have any knowledge of the façade system, but we can see  
 5 what he says about "In PE, the fire would have spread".  
 6 The question which this document raises is whether  
 7 his general observation about PE on this document was  
 8 derived from his having seen the Lacrosse fire report  
 9 earlier in 2015, or perhaps from other knowledge,  
 10 earlier knowledge that he might have had. Further, what  
 11 were his views at this time, now, October 2015, about  
 12 the fire risks of using aluminium composite material  
 13 with a polyethylene core at height?  
 14 We come then to 2016.  
 15 There are two further fires in that year. The first  
 16 is at The Address in the UAE on New Year’s Eve 2015 to  
 17 2016. Can we go, please, to {MET00053158\_P10/174}.  
 18 This is the image that was shared within Arconic in  
 19 emails about that fire .  
 20 If we can go to those emails, please, two pages back  
 21 at 172 {MET00053158\_P10/172}, you can see that at the  
 22 bottom of the page there’s an email from Robert Campbell  
 23 of UK Reynolux — he is area sales UK Reynolux, we heard  
 24 a little bit about him from Deborah French — to  
 25 Katri Petit and Serge Wahler, "Reynodual", and in the

147

1 highlighted part it says:  
 2 "The hotel in Dubai allegedly had Alucobond PE on it  
 3 when it went quickly up in flames on New Year’s Eve."  
 4 The sentence before that I should also have read  
 5 out. He says:  
 6 "It seems that Architects are once again sitting up  
 7 and pondering about how safe is a composite with a PE  
 8 core."  
 9 That email went into the inbox of Alain Flacon. If  
 10 we can go to the second email from the top, we can see  
 11 that, and Mr Flacon replies, second email from the top,  
 12 copied this time to, among others, Peter Froehlich,  
 13 Claude Wehrle and Claude Schmidt:  
 14 "No surprise. The only good news is that it seems  
 15 to be AB products."  
 16 At the top of the chain we see Claude Wehrle’s  
 17 response:  
 18 "I hope that PE will gradually be excluded from  
 19 façade cladding because each time it is the image of all  
 20 the ACMs that takes a hit!"  
 21 Now, the question about that email run and his  
 22 response at the end of it there is whether anything was  
 23 done within Arconic about PE, whether by Mr Wehrle or  
 24 anybody else. Why did Mr Wehrle hope that PE would  
 25 gradually be excluded from façade cladding while Arconic

148

1 was continuing to manufacture it and to sell it?  
 2 If we can scroll down in Claude Wehrle's exhibits to  
 3 page 176 {MET00053138\_P10/176}, only four pages on from  
 4 this, we can see that the same day, 6 January 2016,  
 5 Guy Scheidecker sends an email to Claude Wehrle, subject  
 6 "TR: The Address", forwarding the attachment:  
 7 "Claude  
 8 "Can you read this article please.  
 9 "I'd like to know what you think about it. They are  
 10 destroying the ACM in PE and I don't think it's the only  
 11 component responsible for such a fire.  
 12 "I look forward to hearing your feedback."  
 13 The question there is whether that fairly reflected  
 14 the attitude of Arconic's senior management to PE at  
 15 this time, and explore what was meant by it.  
 16 The second fire of the two in 2016 to refer to is  
 17 the one at Place de Hageneau in Strasbourg in, we  
 18 believe, January 2016. You have seen something of that  
 19 already.  
 20 Can we look at {MET00053158\_P10/178}, so it's two  
 21 pages on from this. There is the email with which  
 22 I think you're familiar from Claude Wehrle to  
 23 Alain Flacon and others at Arconic dated  
 24 19 January 2016, and the embedded photograph. The  
 25 translation is on the next page, 179

149

1 {MET00053158\_P10/179}, if we could please look at that.  
 2 He says:  
 3 "Hello,  
 4 "We were very lucky... The Wolleck tower is in  
 5 Reynobond PE 10 metres from the fire."  
 6 He sets out a web address there and embeds it.  
 7 "Fortunately, the wind didn't change direction,  
 8 but... we really need to stop proposing PE in  
 9 architecture! We are in the 'know', and I think it is  
 10 up to us to be proactive... AT LAST."  
 11 Now, the concern here is, as one can see, that the  
 12 fire on the roof of the building in the Rue de Hageneau  
 13 might have spread to a building 10 metres away clad in  
 14 Reynobond PE. This time it's not Alucobond or some  
 15 other manufacturer's PE, it's Reynobond.  
 16 The question is: what happened to Mr Wehrle's  
 17 warning to senior management, Messrs Flacon and  
 18 Marconnet? Did they do anything about this, and if so,  
 19 what?  
 20 Now, there is then, before this time, a review done  
 21 by the BBA between 2013 and 2015. We've not yet  
 22 presented anything about the BBA review of certificate  
 23 08/4510. That became due in 2014. The review in fact  
 24 started, as we will see from later witnesses, in  
 25 October 2013.

150

1 Between October 2013 and January 2015, the BBA made  
 2 repeated attempts to contact Arconic. There are at  
 3 least five attempts to speak to Arconic, and one can see  
 4 that at {MET00053158\_P17/185} to {MET00053158\_P17/182},  
 5 and also at {MET00053158\_P17/186}.  
 6 On several occasions the BBA clearly requested  
 7 information and confirmation that there had been no  
 8 changes that would affect the suitability for the use of  
 9 Reynobond PE. Just for the note, {MET00053158\_P17/182},  
 10 paragraph 2 of that email. We will be looking at those  
 11 emails in due course with witnesses.  
 12 There is no evidence that the Inquiry has seen that  
 13 anybody at Arconic ever responded with any positive  
 14 information relating to the many new fire testing  
 15 documents and certifications that Arconic had acquired  
 16 since the first issue of the BBA certificate in  
 17 January 2008.  
 18 The question is: why was there no communication  
 19 about the revised classifications provided at this time?  
 20 We know the review was completed and the certificate was  
 21 confirmed as valid for three more years until  
 22 January 2017. It was signed off by Valentina Amoroso,  
 23 the BBA project manager, for Arconic Reynobond 55 on  
 24 10 April 2015, and authorised by Prayer Nkomo, the team  
 25 manager at the BBA.

151

1 The certificate itself is at {MET00053158}. All of  
 2 that will be explored in evidence with the BBA witnesses  
 3 to come.  
 4 The re-issue of the BBA certificate had been due in  
 5 the July of 2014, and in fact the cycle was overdue, the  
 6 review cycle had run over.  
 7 In the context of the Grenfell Tower project, and to  
 8 repeat to some extent what I've said before, in  
 9 July 2014 the information that would have been current  
 10 was under the 2014 tests. At that point, as I say,  
 11 between January and October 2014, Reynobond PE in rivet  
 12 was a class E, cassette was also a class E, as it always  
 13 had been, and would always remain. Had the  
 14 BBA certificate been updated accurately and re-issued at  
 15 that time, then the fire performance of PE cassette  
 16 might have come to the attention of Studio E, Rydon,  
 17 Harley or CEP. As we know, in July 2014 the planners  
 18 were looking at the mock-up of the façade and were  
 19 insisting on cassette-fix, to the disappointment, as  
 20 we've seen from Module 1, of several parties involved in  
 21 the project.  
 22 There was then a further BBA review in October 2016  
 23 to June 2017. Before we get to that, I should just  
 24 mention a further event in the May of 2015.  
 25 In that month, a re-issue contract was raised by the

152

1 BBA, and it's at {BBA00010889} under reference S1/57262.  
 2 That was stated to cover non—technical updates to the  
 3 certificate . It was sent to Arconic on 5 May 2015, as  
 4 we can see from exhibits to Mr Wehrle's statements at  
 5 {MET00053158\_P18/31}. It was signed and returned by  
 6 Mr Wehrle under his email at the same place, page 38  
 7 {MET00053158\_P18/38}, and there was a signed contract,  
 8 page 41 of the same exhibit run {MET00053158\_P18/41}.

9 It appears that the contract was never taken up by  
 10 the BBA and the project was abandoned at that stage. We  
 11 would have investigated with Mr Wehrle whether he sought  
 12 to push it along at all and, if he didn't, why he  
 13 didn't, and why it was, from his perspective, that that  
 14 re—issue did not proceed.

15 Going back, then, to the next period of review,  
 16 October 2016 to June 2017, which was when the  
 17 certificate came up for its triannual review, there was  
 18 another review. There is one document to look at from  
 19 this review which I should show you, which is at  
 20 {MET00053158\_P18/61}. It's a document we're going to  
 21 look at in due course with the BBA witnesses, but this  
 22 is from the Arconic side internally .

23 This is a draft of an email to be sent to  
 24 Valentina Amoroso, who had conduct as project manager of  
 25 this review, the 2016/17 review of the BBA certificate.

153

1 It 's an email from Nicolas Remy to Claude Wehrle on  
 2 18 October 2016, and it's a response in draft to some of  
 3 her requests. We will see that in detail in due course  
 4 with the witnesses.

5 What he says next to the word "DRAFT" is what  
 6 matters for this purpose, and he says:  
 7 "I really feel like I'm dealing with something that  
 8 is not clear cut ... They are coming to do a Review, and  
 9 I am informing them that what they're coming to review  
 10 has been completely modified without them knowing  
 11 anything about it?"

12 Above that we see Mr Wehrle's response back to  
 13 Nicolas Remy, if you scroll up the page. He says, the  
 14 same day, 18 October 2016:

15 "Hi,  
 16 "We'll talk about the situation before distribution  
 17 in order to alleviate this bad impression for you  
 18 [smiley face].  
 19 "Claude."

20 The question is: did Mr Wehrle have a conversation  
 21 with Mr Remy? If he did, what did he tell him? How was  
 22 this resolved internally within Arconic? As I say, we  
 23 will come back to this email chain and the detail of it  
 24 in the correspondence as between the BBA and Arconic  
 25 with the witnesses.

154

1 Mr Chairman, I've come to the end of this  
 2 presentation.

3 It may well be that there are other documents to  
 4 which core participants would wish to have attention  
 5 drawn. This is not the usual situation where there is  
 6 a witness who must be asked any further questions before  
 7 release and the concomitant pressure of time on us.  
 8 There is, therefore, plenty of opportunity for core  
 9 participants, if they want to, to refer to any further  
 10 documents that they consider to be relevant. They can  
 11 do that in their written closing submissions for  
 12 Module 2, which are in a few weeks' time, and that  
 13 of course includes Arconic as well.

14 So the fact that there are documents which others  
 15 consider to be relevant and need to be put into the  
 16 public domain for the purposes of the record, and the  
 17 fact that I haven't covered them, does not mean that  
 18 they are not relevant and shouldn't be put into the  
 19 public domain. There is plenty of opportunity for all  
 20 core participants to identify those documents in due  
 21 course.

22 That said, that brings me to the end of my  
 23 presentation.

24 SIR MARTIN MOORE—BICK: Yes. Well, thank you very much  
 25 indeed, Mr Millett. That's been very helpful to get

155

1 that overview of the documents and the way in which  
 2 events developed over the ten years or so before the  
 3 Grenfell fire .

4 As you've said, others will be entitled to bring  
 5 documents specifically to the panel's attention insofar  
 6 as they think that they are important and haven't been  
 7 properly opened already.

8 So I think at this stage it just remains for me to  
 9 thank you for taking us through those documents, and  
 10 that I think will draw an end to today's hearing.

11 Tomorrow we have another witness. Is that right?

12 MR MILLETT: Yes, Mr Chairman. We have the first of the BBA  
 13 witnesses, Mr Hamo Gregorian.

14 SIR MARTIN MOORE—BICK: Good. Well, we'll look forward to  
 15 seeing him at 10 o'clock tomorrow. But, for the time  
 16 being, that will conclude the business for today.

17 So thank you very much. 10 o'clock tomorrow.

18 MR MILLETT: Thank you.

19 (4.10 pm)

20 (The hearing adjourned until 10 am  
 21 on Thursday, 11 March 2021)

156



1	INDEX	
2		PAGE
3	MR CHRISTOPHER IBBOTSON (affirmed) .....	2
4		
5	Questions from COUNSEL TO THE INQUIRY .....	4
6		
7	Arconic Presentation .....	52
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
		157
		158





















200 (1) 92:13  
 2002 (1) 69:22  
 200203 (1) 59:22  
 2003 (7) 60:10 68:2,4,15  
 75:6 80:14 85:17  
 2004 (9) 68:20 72:6,9,13,16  
 73:5,9 85:21 118:10  
 2005 (23) 57:13,19 58:12,16  
 69:3 75:10 80:20  
 85:18,22,22 97:23  
 98:4,6,10,19  
 100:7,12,13,16,23 104:9  
 106:3 118:25  
 2006 (24) 58:20,25 62:25  
 63:25 64:8 65:11,16  
 71:20,22,23 72:10 73:2,15  
 75:14 76:1,11 77:18,25  
 78:6,11 80:11,17,19 85:18  
 2007 (19) 59:24 60:2,20  
 72:11 73:11 82:9,9,24  
 85:4,5,9,10,23,25 86:7  
 87:5 92:22 93:3 94:13  
 2008 (4) 72:12 88:17 110:10  
 151:17  
 2009 (6) 55:16 90:25 96:14  
 105:9,11,22  
 2010 (5) 104:15 105:14,23  
 110:17,19  
 2011 (47) 97:14,18,24,25  
 98:1,3,15,20  
 99:8,9,9,14,16  
 100:7,13,18,24 101:3  
 104:2,8 105:7,7 106:2,9,12  
 107:4,22 109:12,17  
 110:7,8,11  
 111:1,4,9,13,15,16,24  
 112:8 113:9,12,14  
 114:10,25 118:11,25  
 2012 (10) 67:21  
 122:18,20,23 123:20  
 125:9,13 143:18,20 144:2  
 2013 (14) 60:22 86:18  
 115:10,13,17,18,22  
 117:14,16,23 118:12  
 150:21,25 151:1  
 2014 (43) 17:12  
 102:14,16,19 111:3 118:21  
 119:1,3,4,20,24 121:23  
 124:23 127:12,17,25  
 128:5,7,9,19,20,25  
 129:1,11,16,20,22,25  
 130:1,4,8,10,12,25 131:4  
 138:19 143:13 150:23  
 152:5,9,10,11,17  
 2015 (69) 6:21,24 9:5,14  
 10:7,13,16,20 11:7,21  
 12:8,11,14,15,18 14:23  
 19:19 21:15 22:8,15 23:22  
 28:1,4,7,10 29:5 30:15  
 31:14 32:2,7,13 34:4  
 37:9,12 38:9  
 39:2,5,5,8,12,16 41:14  
 42:23 43:7 45:5 49:14  
 57:15 130:10,13 132:13  
 133:5 134:24 135:13  
 136:18 138:8,20 143:17  
 145:8,20 146:4,19  
 147:9,11,16 150:21  
 151:1,24 152:24 153:3  
 20158411 (2) 132:16 133:4  
 2016 (12) 67:21 101:12  
 147:14,17 149:4,16,18,24  
 152:22 153:16 154:2,14  
 201617 (1) 153:25  
 2017 (6) 5:25 6:21 66:20  
 151:22 152:23 153:16  
 2019 (1) 5:14  
 2021 (2) 1:1 156:21  
 2049500 (1) 78:22  
 20millimetre (3) 100:9,10  
 103:24  
 21 (8) 22:24 39:8 76:1 85:9  
 127:15 142:11,13 143:17  
 21st (1) 142:5  
 22 (2) 5:24 16:22  
 220806 (1) 78:21

2297 (1) 107:2  
 23 (7) 57:10 59:7 85:10 91:7  
 113:14 129:16,20  
 230806 (1) 79:18  
 2325 (2) 133:13 137:20  
 24 (5) 20:17 37:12 43:7  
 114:10 138:19  
 24000 (1) 83:25  
 25millimetre (2) 30:19 47:15  
 25mm (1) 42:11  
 26 (2) 42:23 58:25  
 27 (2) 38:9 62:25  
 278 (1) 133:1  
 28 (2) 29:15 134:21  
 281 (1) 133:1  
 28millimetre (1) 30:18  
 28mm (1) 31:1  
 29 (5) 86:18 104:8 106:12  
 111:9,15  
 2mil (1) 40:25  
 2millimetre (1) 64:10  
 3  
 3 (15) 10:18 11:24 45:23  
 57:20 61:7 63:11 64:7 67:1  
 93:9,21 119:4,20 132:13  
 133:5,22  
 30 (2) 66:20 99:25  
 3000 (1) 135:5  
 31 (9) 73:22 102:16,19  
 118:21 119:1 128:5,7,9  
 129:22  
 315 (1) 134:13  
 322844 (5) 122:9,13  
 123:12,20 125:22  
 322845 (5) 122:9,13  
 123:12,20 125:22  
 33 (11) 64:4,6,10,12,16  
 65:9,11 66:3,17 67:24  
 80:17  
 330 (3) 134:10,12,15  
 34 (2) 65:14,14  
 34mm (1) 65:19  
 35 (2) 77:12 87:13  
 350 (1) 106:23  
 38 (2) 117:21 153:6  
 38132 (1) 36:8  
 3a (1) 140:8  
 3millimetre (1) 64:12  
 3mm (2) 60:21 65:19  
 4  
 4 (26) 17:16 22:23 45:5  
 57:15 64:8 69:3 93:14,14  
 98:2,5 115:13,17 121:23  
 122:3 124:23 125:10,14,20  
 128:19,21 129:1 130:4  
 135:5,17 141:24 157:5  
 40 (2) 21:9 135:11  
 400 (1) 69:9  
 401 (1) 137:17  
 41 (1) 153:8  
 410 (1) 156:19  
 4102 (1) 18:5  
 42 (1) 86:11  
 422 (1) 7:10  
 43 (3) 98:7,11 128:22  
 430 (1) 134:8  
 47 (2) 55:5,7  
 472 (1) 87:14  
 476 (14) 13:22 55:16,18  
 63:25 64:6 67:18,22 74:25  
 85:16 86:24 90:21,24 91:5  
 112:14  
 47620 (1) 91:14  
 4764 (1) 45:21  
 4766 (9) 64:13,16,21 65:2  
 68:4,12 88:11 90:22  
 122:20  
 4767 (1) 68:13  
 4millimetre (1) 64:15  
 4mm (4) 60:19,24,25 136:5  
 5

5 (16) 14:8 16:22 23:13 24:6  
 39:19 46:5 69:4 76:5 87:5  
 88:21 90:2 91:1 122:20  
 125:9,13 153:3  
 50 (6) 76:11 83:8  
 98:13,18,22 99:7  
 5000m (1) 95:5  
 50millimetre (5)  
 100:8,13,17,21 103:22  
 52 (1) 157:7  
 522 (1) 91:2  
 523 (1) 91:2  
 53 (1) 55:20  
 532 (1) 36:9  
 538 (1) 46:7  
 55 (36) 54:24 63:23 64:1,20  
 65:12 66:4 67:17 68:5  
 69:4,6 72:15,22 74:20  
 78:21 80:15,18 81:17  
 97:19 104:25 106:9  
 107:14,24 111:22  
 122:19,24 127:10,17  
 128:18 129:18,20 131:9,20  
 135:5,19 136:25 151:23  
 55s (1) 66:16  
 56 (1) 59:21  
 5754h42 (1) 94:8  
 58 (1) 89:6  
 59 (1) 112:1  
 5a (16) 68:19 69:12 75:10  
 80:20 85:17,21 97:18,22  
 98:4,6,10,20 100:23  
 110:23 118:25 129:23  
 5b (17) 68:19 69:7,14,17,23  
 75:11 80:20 81:13 97:19  
 105:5 106:2,4 107:4  
 109:17 110:25 115:1  
 118:10  
 6  
 6 (15) 5:14 24:16 60:5 65:17  
 68:8 74:25 75:8 78:6,11  
 87:12 88:20 91:2 119:24  
 120:19 149:4  
 60 (1) 96:6  
 6000 (1) 135:7  
 61 (4) 90:5,7,11 141:10  
 62 (8) 32:3 90:6,11  
 102:23,25 104:6,7 105:15  
 63 (4) 90:6,11 102:23 107:18  
 64 (4) 57:25 99:1 102:17,22  
 65 (8) 58:1 88:23 89:9,23  
 90:3,12 115:25 140:19  
 67 (1) 141:8  
 673683 (1) 144:18  
 68 (2) 67:15 142:14  
 686 (1) 58:2  
 69 (1) 61:3  
 6a (2) 23:6,11  
 6th (1) 63:15  
 7  
 7 (22) 5:12 26:3 64:13,16,21  
 65:2,17 67:12 68:4,9 70:2  
 74:25 75:7 82:9,24 88:12  
 90:23 91:2,7 117:23  
 120:19 122:20  
 70 (2) 96:7 127:15  
 70707 (4) 59:18 60:5,11  
 61:17  
 70708 (4) 59:19 60:6,11  
 61:17  
 7080000sqm (1) 76:12  
 70millimetre (1) 46:1  
 72 (1) 9:17  
 73a (1) 70:3  
 74 (2) 57:10,11  
 750 (1) 61:10  
 7971 (1) 63:11  
 7a (4) 24:6 46:6 85:11,12  
 7b (1) 24:13  
 7th (1) 63:16  
 8

8 (7) 22:4 38:25 39:2,5,5  
 44:17 141:24  
 800 (1) 118:5  
 82 (1) 67:15  
 850 (1) 69:8  
 873 (2) 43:13,14  
 88 (1) 120:12  
 8th (1) 142:5  
 9  
 9 (7) 65:13 72:16 73:9 97:25  
 98:1 122:7 125:14  
 9010 (1) 30:1  
 93 (2) 123:21 124:22  
 94 (1) 122:25  
 95 (1) 121:22  
 96 (1) 120:21  
 97 (2) 119:23 120:6  
 98 (1) 120:3