

WITNESS STATEMENT OF JONATHAN ROPER

1. INTRODUCTION

1.1 I, Jonathan Roper, of [REDACTED] will say as follows:

1.2 I am a former employee of Celotex Limited, a Core Participant in the Grenfell Tower Inquiry (the "Inquiry"). I was employed by Celotex Limited between 28 May 2012 and 31 December 2015. The manufacturing business that produced Celotex insulation was transferred from Celotex Limited to Saint-Gobain Construction Products UK Limited ("SGCPOK") with effect from 31 December 2015. From that date, I was employed by SGCPOK until 1 April 2016. In this witness statement, unless stated otherwise, I use the term "Celotex" to refer interchangeably to both Celotex Limited and SGCPOK, trading as Celotex.

1.3 I make this statement in response to the Inquiry's request for evidence under rule 9 of the Inquiry Rules 2006 in its letter to me of 25 June 2018.

1.4 This statement is divided into the following sections:

1.4.1 **Section A:** My professional background, experience and role at Celotex

1.4.2 **Section B:** The development of the Celotex RS5000 insulation product

1.4.3 **Section C:** Research conducted prior to testing

1.4.4 **Section D:** Preparing for BS8414 fire test and conducting test at BRE

1.4.5 **Section E:** Post-test discussions concerning the launch and marketing of RS5000

1.4.6 **Section F:** The sale and marketing of RS5000 in the period up to April 2016

1.4.7 **Section G:** Marketing

1.4.8 **Section H:** Response to the Inquiries' 'List of Issues - 31 May 2018'.

1.5 In making this statement I have relied on my own knowledge. I have stated below where I am relying on information provided by others; I believe their information to be true.

1.6 I have also referred to documents disclosed by Celotex Limited to the Inquiry.

2. **SECTION A: MY PROFESSIONAL BACKGROUND, EXPERIENCE AND ROLE AT CELOTEX**

2.1 I completed a Business Studies degree at the University of East Anglia on 2 May 2012 when I was 22 years old. I joined Celotex immediately after I graduated and I held the following positions:

2.1.1 Assistant Product Manager from May 2012 to September 2013;

2.1.2 Product Manager from September 2013 to September 2014; and

2.1.3 Area Sales Manager for East Anglia from October 2014 to April 2016.

2.2 When I joined Celotex I had very limited knowledge and no experience. I did not know anything about insulation or generally about Celotex's products and I was told that I would be supervised by Paul Evans, who was the Product Manager. I reported to Paul and he reported to Chris King, who was the Marketing and Business Development Director at that time. As far as I understand it, Paul reported to the Management Board monthly to let them know what our team was doing and what progress was being made. I never attended these meetings during my employ at Celotex and I understand those who attended were the Managing Director, Operations Directors, Finance, Marketing, Sales, HR and Research and Development Managers.

2.3 At the time I joined Celotex, the Marketing Department comprised four or five people and had two functions: "Product Management" and "Marketing Communications". The Product Management team (of which I was a member) was responsible for the management of new and existing products sold by Celotex and the development of plans for particular areas that had been identified by the business as areas for growth. This role was quite commercially focused: it was not about the formulation or manufacturing of any particular product but the market-facing branding of them. The Marketing Communications team (of which I was not a member) dealt with the production and development of literature for Celotex products and market-facing advertising, including on its website and in social media, in order to implement the projects that were developed by the Product Management team. The Marketing Department held monthly marketing meetings for both teams so that we could keep the Marketing Communications team informed about what the Product Management team was working on.

2.4 I was not given any specific training in my roles at Celotex but I was micro-managed by Paul who would give me daily tasks and would check all the work I

produced. Paul and I would have regular ad hoc meetings where he would check on the work I had done so far. I would regularly email him providing him with updates on what I had researched to see if he wanted me to research anything else or to get his views.

- 2.5 My understanding of my role as Assistant Product Manager was to complete the tasks given to me by Paul. The tasks included gathering information and building intelligence to aid in the development of commercial initiatives. The tasks I was given were analytical, for example, I would produce background materials on sales trends within product lines. My work was reviewed by Paul and would often be used as part of his upward reports to Chris King if he agreed with what I produced.
- 2.6 Following the acquisition of Celotex by Saint-Gobain at the end of 2012, there were a number of personnel changes throughout the business. Chris left Celotex and Paul was promoted to the role of Head of Marketing. Paul became responsible for Lizzie Seaton and Bex Hartlebury but he also remained my Line Manager. The vacancy for his previous position of Product Manager was advertised both internally within the business and externally. I was interviewed twice for the role, however, an external applicant with more experience, Karen Moore, was appointed as the Product Manager to replace Paul in or around July 2013. I was then told by Craig Chambers (then Managing Director of Celotex) and Paul that they intended to employ two Product Managers and I would also be promoted to the role, although I would not be given a pay increase. No one was employed to succeed me in the role of Assistant Product Manager following my promotion, which took place in September 2013. I continued reporting to Paul in my new role as I did when I was Assistant Product Manager.
- 2.7 In my role as Product Manager I still did not attend Board meetings. Paul continued to do so. I attended other meetings with those working/assisting on the same projects and Paul would also attend.
- 2.8 In October 2014, I became the Area Sales Manager ("ASM") for East Anglia. I took this role as I wanted a different challenge. My role consisted of selling Celotex products within East Anglia and Kent.
- 2.9 I resigned from Celotex in March 2016; my employment terminated on 1 April 2016.

3. **SECTION B: THE DEVELOPMENT OF THE CELOTEX RS5000 INSULATION PRODUCT**

- 3.1 Celotex already had the idea of creating an insulation product for the above 18 metre market prior to me joining the company.
- 3.2 I learnt, soon after joining Celotex, that it was common knowledge amongst the employees that Kingspan (Celotex's competitor) had a product for the above 18 metre market and Celotex wanted to create such a product to remain competitive. Celotex's ultimate goal was to produce a product with better thermal conductivity than Kingspan's.
- 3.3 I learnt that Paul had researched this market prior to me joining the company. He told me the reason Celotex had not launched the product for this market earlier was that there was not enough money in the budget but, now that the company had been acquired by Saint-Gobain, the budget had increased which enabled Paul to focus on this project.
- 3.4 The decision to test using an existing product, rather than seeking to develop a new product, at least in the first instance, was made before I became involved in the project. I believe Joe Mahoney had drafted a report based on Kingspan's product and noted from this that one of the insulation boards Celotex created (which later became the RS5000 product) would perform similarly to Kingspan's insulation product as it had the same Class 0 fire rating. Joe was of the view that the detailed chemical makeup of the product was similar and that we could market our insulation product 10 percent cheaper to remain competitive. Paul then reported this to the Board and they agreed for us to develop this product.
- 3.5 Soon after the Board agreed to us developing this product, Paul put together a team to work on the project. Initially it consisted of Jamie Hayes and myself with Paul Evans overseeing what we did. As the project developed the team grew to include Rob Warren, John Roome, Joe Mahoney and Lizzie Seaton.
- 3.6 In due course, the team decided to call our above 18 metre insulation product RS5000.
- 3.7 I recall Paul attending a further Board meeting towards the end of 2013 and this is when he informed me that the Board had agreed to us testing the product.

4. **SECTION C: RESEARCH CONDUCTED PRIOR TO TESTING**

- 4.1 In my view, one of the key challenges in this project was that Celotex had not carried out a BS 8414 fire test previously. As a result, Paul was keen from the outset for me to speak to certain individuals, internal or external, who had conducted a large scale fire test before. Paul provided me with names and contact details of those he wanted me to contact. I assumed these were connections he made on other projects he had worked on previously.
- 4.2 Paul instructed me to make contact with some of his contacts at the NHBC, BRE and BBA. He wanted me to obtain more information on what was required to launch such a product.
- 4.3 The reason Paul wanted me to contact the NHBC was because Celotex wanted to sell their product to the new build housing market. Paul tasked me with exploring whether there was anything specific the NHBC required in the test in order to justify them using Celotex's product.
- 4.4 I recall Paul mentioning to me that there was a particular fire test (which I later learned was a test pursuant to a method proscribed by British Standard ("BS") 8414) that needed to be passed.
- 4.5 I recall Paul and Rob Warren gave me an overview of the BR 135 testing requirements. From my conversations with them, my understanding was that Part 1 typically applies where over-cladding is fixed to an existing concrete or masonry block as part of a refurbishment project and Part 2 typically applies to new builds, where the cladding is supported with a steel frame. There was an assumption made by them that if a system passed under Part 2, it would also pass under Part 1, because a concrete or masonry structure is more fire-resistant. I believe this assumption was made because Paul Evans had already obtained a quote for carrying out a BS8414.2 test from Steven Howard at the BRE.
- 4.6 I did not have much understanding of the testing requirements and therefore relied on what my colleagues at Celotex told me.
- 4.7 A short while later a project team was established for the above 18 metre project. The team operated as a network of people to discuss and coordinate the project. The members of the team [and their areas of focus] were: Paul (Marketing and my Line Manager who oversaw the work I completed), Jamie Hayes (Technical, with Rob overseeing him), Joe Mahoney (Research & Development), and me (to research what was required under the instruction and direction of Paul). Sam Holden (an

ASM) was also involved in the project initially, Lizzie Seaton (Marketing Assistant) and John Roome (Specification Manager).

- 4.8 Even though Paul was Head of Marketing, he still played a pivotal role in directing the progress of the above 18 metre project. This was clear by the fact that I had to inform him of any progress and research I had conducted to determine whether he had any comments and what my next tasks would be¹. Despite his new position, he remained my Line Manager and oversaw all my work.
- 4.9 In addition to the companies/individuals Paul asked me to contact directly, I also contacted Sotech. I met Michael Egginton from Sotech by chance, at an event organised by the Royal Institute of British Architects ("RIBA"), which I had attended to gain information relevant to one of my other KPIs set in January that year, to implement building insulation modelling into Celotex's specification service. Sotech was a manufacturer of metal rainscreen cladding systems and Michael told me that his father, John Egginton, had been involved in conducting a test to BS 8414 using a system with Sotech panels, Rockwool insulation and a Metsec steel frame. Sotech panels had also been tested in a system with Kingspan insulation and a Metsec steel frame; a test which failed.
- 4.10 I arranged a meeting with John and Michael later that month.
- 4.11 On 20 June 2013, I met with John, Michael and Graham Todd from Sotech. On 24 June I emailed Paul a summary of our discussion². The purpose of the meeting, as set out in my summary, was to discuss a "partnering opportunity for testing to BR 135". Sotech was interested in considering a partnering opportunity with a well-known insulation manufacturer which they thought could be of mutual benefit.
- 4.12 During the meeting, I wanted to understand Sotech's previous experience and methods for testing BS 8414 using both Rockwool and phenolic insulation (Kingspan's insulation) behind a Sotech cladding system. John told me that Sotech had successfully passed both BS 8414 Parts 1 and 2 using systems incorporating Rockwool insulation. He also told me that Sotech had provisionally tested under BS 8414:2 using Kingspan K15 as the insulation, which had been forced upon by Metsec who built the steel frame but that test had failed and then Sotech had reverted to Rockwool which had passed.

¹ [CB085/C_06840] and [CB089/C_06853]

² [CB049/C_01867]

4.13 John, Michael, Graham Todd and I also discussed how Kingspan appeared to be selling its product for use in a variety of systems based on an unrepresentative test conducted some years ago. The system had included cement particle cladding boards. We discussed that cement particle boards were not often used in the market, mainly because they were bland and ugly and because they were primarily used as a construction backing board and not a façade.

4.14 My summary of the meeting, which I provided to Paul, noted that: "Aluminium railing system and cladding panels found to melt and allow fire to enter cavity³". Unfortunately Sotech seemed to only manufacture aluminium or metal cladding which is not what we wanted to use for the fire test as it would likely fail. I fed this information back to Paul and we decided against using Sotech for cladding.

5. SECTION D: PREPARING FOR BS8414 FIRE TEST AND CONDUCTING TEST AT BRE

5.1 Celotex did not have the scope to carry out a series of tests at the BRE as they cost around £25,000-£30,000 per test. I recall Paul informing me that we were unlikely to have a budget for two tests. Our team wanted to consider whether we could conduct one test and then commission a 'field of application report' from a reputable fire consultancy such as International Fire Consultants ("IFC"), who had been recommended by John Egginton. A field of application report was the earlier name for what became known as a desktop study. My understanding was that through such a report or study, a specialist would extrapolate from known test data to enable advice to be given as to the likely performance of a system modified in certain respects from the system which was tested and therefore make it applicable to be used in different cladding systems.

5.2 On 3 October 2013, Jamie Hayes (of the Celotex Technical Centre) and I met John from Sotech and Ian Cooper of IFC to discuss testing to BS 8414:2.

5.3 Jamie Hayes attended the meeting as the subject matter was quite technical and beyond my understanding. John thought that it would be very problematic to pass the test using RS5000 with a Sotech panel. He told us that Kingspan had failed the test twice using its phenolic insulation, a Sotech panel and standard cavity barriers; this was because Sotech had aluminium in its cladding.

5.4 Celotex decided against using Sotech panels for this reason.

³ [CB049 / C_01867]

- 5.5 I recall discussions with the NHBC regarding breathable membranes. I recall that there was confusion within the NHBC standards as to how the breathable membrane should be used, specifically, whether it could be on the outside of the cladding panel or on the inside. My team also discussed the size of the gaps at the joints and in the cavity behind the insulation. I recall NHBC required certain gaps for the rainscreen system to work and we followed these requirements.
- 5.6 It was around this time that I was first introduced to Chris Mort of Siderise who wanted to install the fire barriers free of charge. He wanted to team up with a well-known insulation provider. His suggestion was that he would install the fire barriers free of charge if we mentioned his company in the literature which we did.
- 5.7 On the morning of 30 October 2013 I was introduced by Ian Lathbury, an ASM at Celotex, to Graham Smith of Simco. He was keen to work with Celotex and offered to help with the construction of the test rig.
- 5.8 I also sought advice from IFC in relation to the design of the rig to use for the system test Celotex was going to commission. I wanted to know their opinion as to whether the RS5000 product was a suitable component for a BS 8414 test and also their advice on the type of fire barriers to use and the dimensions of gaps on the rig. However, it became apparent relatively quickly that whilst IFC had expertise in fire generally, they had limited experience with fire tests.
- 5.9 Following my research, I summarised my findings to Paul and proposed two testing options:
- “(1) Test a standard A2 limited combustibile panel...with a standard fire barrier system. If challenged on what system to use, we can happily state that our test used an A2 panel with a particular commonly used fire barrier. Still not 100% confident in passing as A2 is a euroclass classification derived from test data on reaction to fire testing.*
- (2) Opt for the K’span route and put a cement particle board as the cladding. Use a standard fire barrier. Good chance of passing knowing they have and cp board is good in terms of resistance to fire.⁴”*
- I went on to say:
- “However, what we do need to consider is if we have two potential systems that could pass, how do these dictate route to market. What does an ASM/CTC state to somebody who enquires? If we simply have the test report, we don’t want to have to*

⁴[CB101/C_00718]

provide this as evidence. Do we in fact need to spend £25k/£30k for a BBA to be able to gain this document from LABC which in my mind gives us very little chance of being challenged from building control. Do we partner with a few fire barrier manufacturers who have tested with K15 currently to gain confidence in the mkt that way? Or do we take the view that our product realistically shouldn't be used behind most cladding panels because in the event of a fire it would burn?"⁵

5.10 I was aware at this time that Celotex would not want to provide a test report to customers which would reveal commercially sensitive information. In my email to Paul, I raised the question of what else Celotex could do (e.g. seek BBA approval, partner with a number of fire barrier manufacturers who have tested with Kingspan's product) to provide comfort for customers. The alternative, I explained to Paul, when referring to both the cladding and insulation, would be to take the view that the Celotex product realistically should not be used behind most cladding panels because in the event of a fire, it would burn.

5.11 Paul responded to my email the same day, saying:

"Great summary and shows the real merit of good research and talking to the market. We are trying not to create a 'me too' here but if we do it will be for the right reasons... For me, for every amount of confidence we lose in the other system passing needs to be offset with the same amount or more competitive advantage that doing it this way delivers. I am not sure we will have that but let's discuss and also get the views of others."⁶

5.12 He suggested I *"put the whole story into some slides and spend 15 mins at the start [of the meeting I was planning] bringing everyone up to speed on [my] work to date"*. He asked me to invite Joe Mahoney as he was responsible for the budget *"and should also have a say in whether this happens"*.⁷

5.13 After Paul's email, I prepared a set of slides titled "Above 18m Update"⁸ for use at the meeting on 4 November 2013 which I did not attend. The meeting was also attended by Craig Chambers, Rob, Paul and Jamie Hayes. The slide deck contained a series of introductory slides on the above 18 metre market and the applicable testing requirements which I obtained from my research. These were aimed at Craig Chambers who was relatively new to the business. Paul, Jamie Hayes and Rob

⁵ [CB101/C_00718]

⁶ [CB101/C_00718]

⁷ [CB101/C_00718]

⁸ [CB103/C_01202]

would have known this information at that time as I kept Paul abreast of my research and both Rob and Joe had technical expertise.

- 5.14 I was aware that Rob and Paul expressed their views at this meeting. These were not entirely aligned. Prior to this meeting, I was already aware that Rob was clear in his views that BS 8414 was a system test and that the test report relating to a successful test was only applicable to that particular system. I was aware of this as I had an information chat with him. Craig Chambers and Paul were aware that Kingspan was selling successfully on the basis of one BS 8414 test as to which it provided only limited information to the market and that Kingspan did not seem to be being asked for further details of their test. Craig Chambers and Paul's view was that adopting Rob's interpretation would limit sales and would not be a reflection of market dynamics. I was told by Paul that Craig Chambers had said at the meeting on 4 November, which I did not attend, that there was no point in worrying about a test and its impact on sales until Celotex had passed it successfully.
- 5.15 I was also told by Paul following this meeting that I would be in charge of arranging the BS 8414.2 fire test at the BRE.
- 5.16 My understanding of the test at that point was from my research and from what Paul told me. I understood that the BS 8414:2, was applicable to new builds with a steel frame, the majority of which are certified by the National House Building Council (the "NHBC").
- 5.17 There was a view in the business that NHBC 'approval' (by which I mean guidance) was an important aspect to the successful marketing of Celotex's product. The NHBC is known for being strict with its guidelines and we wanted their help.
- 5.18 I exchanged a number of emails⁹ with both Graham Perrior (Head of Standards and Approvals) and Dave White (Senior Technical Officer) of the NHBC primarily in November and December 2013. I understood that the NHBC was working on guidance on BS 8414 tests that it intended to publish to the industry so I wanted to determine what we needed to do in order to be guidance compliant.
- 5.19 Graham and I subsequently arranged to meet on 6 January 2014 in Milton Keynes. I cannot recall if Dave also attended. At this meeting, Graham told me that the NHBC was going to publish a guide for the industry on the above 18m market. I requested a draft copy or a brief summary of this guidance from him but he did not provide it prior to Celotex's tests in February or May 2014. I recall that the relationship with

⁹ [CB135/C_00746]

the NHBC was not an easy one. I had the impression that Dave in particular did not like me having pushed for a response and guidance because he did not want to be seen as being unclear on the NHBC guidance himself. Unfortunately, despite my efforts to obtain the draft guidelines, they were not provided by NHBC.

- 5.20 I also sought some assistance from the BRE as this was the only realistic choice as the testing house for our BS 8414 test because in addition to my preliminary discussions with Ian Baker regarding testing to BS 8414, I also corresponded with Stephen Howard, Business Group Manager at the BRE.
- 5.21 In an email of 15 October 2013, I explained to Stephen Howard that I wanted to discuss the BRE potentially providing a field of application report following the test and what this could entail. All the information I obtained I fed back to the team at Celotex. Our team had wondered if, by having different cladding panels on the main wing and the return wing of the L-shaped test rig, we could have a test report that worked for both materials, thereby extending the application of the test report. However, the BRE had said this was not possible – the external face of the cladding needed to be the same on both wings.
- 5.22 Following my introductory meeting with Simco on 30 October 2013 and our initial correspondence in around November 2013, I started liaising with Simco so that they could prepare technical drawings of the test rig.
- 5.23 I emailed John Simmons and Luke Cresswell on 8 November with the subject line "Celotex Test Design":¹⁰ Simco had previously advised that Celotex needed panels with good levels of fire resistance and Marley Eternit panels were very similar to cement particle boards and had good fire performance. Luke provided revised, finalised drawings of the test rig on 22 January 2014. I forwarded the drawings to Jamie Hayes for discussion. I also forwarded the finalised drawings to Graham Perrior and Dave White with the subject heading "Celotex BR 135 Test Specimen – Final Design". My email explained that the dimensions reflected the BS 8414:2 standard.
- 5.24 I then arranged the sheathing board and the Marley Eternit cladding panels. In the email, I noted that the "drawings show an 8mm panel and if I'm honest, I'd prefer them to be 8mm but if you have only 12mm this will be fine".¹¹ My preference was for the panels to be 8mm in thickness because our team thought this was more representative of what was used in the market, however if only 12mm was available

¹⁰ [CB107/C_01890]

¹¹ [CB202 / C_03032]

then that would be fine. Paul, Rob Warren and Jamie Hayes were aware of this choice of board and the decision as to thickness.

- 5.25 Siderise was chosen as the fire barrier brand as I understood those barriers were commonly used. The business was also local to Celotex in Hadleigh, Suffolk. Celotex had decided on a 60mm cavity gap as this was above the NHBC minimum standard.
- 5.26 I visited the BRE facility in Watford prior to the first test whilst construction of the test rig was ongoing – a process which took several days. Rob attended with me. The rig was constructed by Patrick “Patch” Jones who was a contractor provided by Simco. I believe that he may have had assistance from one other person but I cannot remember who this is. Chris Mort of Siderise installed the fire barriers.
- 5.27 I attended the BRE Test House on 14 February 2014 with Rob and Ian Cooper of IFC; Phil Clark of the BRE was also present throughout. The test did not go well and was stopped after 26 minutes. There was an obvious failure as the flames reached the top of the test rig before the specified time. I do not recall being particularly surprised by this failure as it was Celotex’s first attempt at the test.
- 5.28 Rob told me that he thought the insulation had performed well and the cause of the failure seemed to be the Marley Eternit panels, which had cracked. Phil told me he shared Rob’s view that the insulation had performed relatively well but that the cladding panel had cracked and that once fire had entered the cavity there was not much that could be done.
- 5.29 Following the end of the test, Rob, Ian Cooper, Phil and I had a discussion whilst at the BRE testing centre. Phil said that he had ‘seen worse fails’ and suggested that Celotex might want to strengthen the outside of the test rig in order to counteract the cracking of the Marley Eternit panels. I told Phil that the Marley Eternit panels were also available in 12mm (in addition to the 8mm panels used in the test) and Phil responded that he thought that thickening the panels to 12mm might suffice. Phil also joked that Celotex could use a 6mm cement particle board like Kingspan – but I knew that this was not what the business wanted. This is because they wanted to create a competitive advantage by testing with a more realistic cladding panel. I do not recall any mention of any further possible modifications to the rig during this discussion. At the time, I thought this might be the end of the above 18m project as we had exhausted our budget and it had only ever been envisaged that we would conduct one test. I do not recall a report being issued for the first test. I do not

know if the BRE issues reports for failed tests. I also do not remember asking for a report at this stage.

- 5.30 Following the test I reported back to Craig Chambers and Paul. We acknowledged that from an insulation perspective the test had gone relatively well and that Celotex were very close to the test continuing for the required 30 minutes in which would have been classified as passed. We discussed how we could modify the system to achieve a pass. It was clear that Celotex needed to choose more fire resistant cladding, but immediately following the first test there was no clarity as to how.
- 5.31 Following our internal discussions, I sought some advice from IFC and the BRE. I spoke to Phil about thickening the cladding panel to 12mm. I believe we also spoke about the option of strengthening the fire barrier level with a two panel solution because it appeared from the February test that the cladding panel had cracked and fallen away which enabled the fire to jump around the fire barrier at level 2. I do not think that Phil suggested anything specific in this regard.
- 5.32 Paul, Rob, Jamie Hayes and I subsequently discussed two options: (i) increase the thickness of the panel to 12mm; or (ii) increase the panel thickness and use a double panel system on the fire barrier, using a magnesium oxide board. We decided on option (ii) because we thought that such a system stood the best chance of passing the test. Craig Chambers may also have been present at that discussion, although I cannot now clearly recall. In any event, Paul said he would need to discuss this in greater detail at the Board meeting. Paul also said that a discussion with Joe Mahoney would be required to secure the budget for a further test.
- 5.33 I do not recall participating in any discussion about changing or reducing the ventilation gaps in the system from the first to the second test. The thickness of the insulation was the same and the same brackets were going to be used. The only changes between the first test and the second test that I was aware of was the thickening of the Marley Eternit panel from 8mm to 12mm, and the use of a 6mm magnesium oxide board at the fire barrier at level 2 and at the top of the test rig.
- 5.34 In preparation for the second test I continued to liaise with Graham Smith and Luke Cresswell of Simco regarding the supply of materials to the test site and installation of the test rig in advance of the second test.
- 5.35 The team at Celotex had wanted Patrick Jones to construct the rig for the second test because Paul, Rob and I decided that we did not want to pay for another set of drawings to be created and Patrick knew the system from the first test. We thought that Patrick could oversee the construction without the need for revised drawings.

Patrick was instructed by me (I passed instructions on from Paul and Rob) to build the same system as for the first test with two changes, thickening the cladding panel to 12mm and inserting the magnesium oxide board on the fire barrier at level 2 and at the top of the rig.

5.36 I sourced the materials for the re-test. The second BS 8414 test commissioned by Celotex took place on 2 May 2014. I attended the test along with Rob Warren. I cannot recall whether Jamie Hayes also attended but Phil of the BRE was present.

5.37 Once the test started, it was quickly apparent that the 12mm cladding panel made a significant difference to the performance of the system in the test compared with the one used in the February test. I thought that this was due to the thickening of the cladding panels; I thought that the thinner panels cracking had been a reason for the failure of the first test and the thicker panels were more robust.

6. SECTION E: POST-TEST DISCUSSIONS CONCERNING THE LAUNCH AND MARKETING OF RS5000

6.1 Following the successful test, Paul asked me to create a set of slides so that the Board could be brought up to speed. I have no detailed knowledge of what happened at individual Board meetings but I understood the Board to be the forum in which key decisions for the business were taken. Paul was a member of the Board and I provided him with information which I understood occasionally used to present to the Board.

6.2 There was a Board meeting scheduled for 13 and 14 May 2014 at Celotex's premises in Hadleigh. As requested by Paul, I prepared a set of slides entitled "Above 18m".¹² At the start, I included some slides explaining my understanding of the regulatory standards, the BS 8414 test methodology and test criteria which was based on what I was told by Paul, my research and our Team's conversations about it. I described the anticipated market opportunity and some information from my market research about Kingspan's K15 product which was available for the above 18m market and with which Celotex hoped to compete.

6.3 I emailed Paul the slide deck on 14 May 2014¹³. This email was timed at 1046am which implies that I may have sent it to Paul whilst the board meeting was ongoing but I cannot be sure. Following the Board meeting, Paul asked me to create another version of the Board presentation which did not refer to the February test or to the

¹² [CB261 / C_00932]; [CB262 / C_00933]

¹³ [CB261/C_00932]

6mm Magnesium Oxide. He said that this was for general business use. I believed that that this shorter version of the slides would be used for the sales team. I prepared an edited version as per Paul's instructions.¹⁴

6.4 Louise Garlick, the Customer Service Manager, who I believe had apparently been present for at least some of the Board meeting, spoke to me at around this time and told me that there had been a heated exchange between Rob Warren and Paul as to what to do. The upshot, as I understood it from Ms Garlick, was that a decision had been taken (it was not entirely clear to me when or by whom) that there would be no reference to the first failed test, nor to the magnesium oxide board used in the second test.

6.5 With the benefit of hindsight it seemed to me that Celotex was going down the Kingspan route in not giving full details of the system that had been tested.

7. SECTION F: THE SALE AND MARKETING OF RS5000 IN THE PERIOD UP TO APRIL 2016

7.1 On 15 May 2014, I emailed Graham Perrior and Dave White of the NHBC informing them that Celotex had, "*successfully passed BR 135 using the system I briefly described on over the phone and managed to achieve a pass with the level two thermocouples not exceeding higher than 450°C throughout the full duration (60 mins) of the test*" on 2 May 2014. I invited Graham and Dave to discuss the BS 8414 test Celotex had conducted and we subsequently agreed to meet in Hadleigh on 19 June 2014.

7.2 The purpose of the meeting was (i) to discuss the above 18 metre project, and (ii) to address some of the concerns that the NHBC had at that time around the quality of a different Celotex product. For this second reason, Ian Parker, the Celotex Quality Manager at the time, conducted a factory tour with the NHBC representatives as an opportunity to allay concerns. I attended this part of the meeting with Paul Reid (Sales Director at the time). It would have been more appropriate for Paul Evans or Rob Warren to have attended but I cannot remember why they did not.

7.3 Phil Clark provided the draft report at about 10:30am on 19 June. The meeting with the NHBC started at around 11am. I do not believe I did anything more than skim read the draft BRE Test Report prior to the meeting with NHBC. We did not provide the NHBC with a copy of the draft report at the meeting.

¹⁴ [CB277 / C_00961]

- 7.4 No mention was made in the meeting with the NHBC of the test Celotex had commissioned in February 2014, nor that a magnesium oxide board had been used to reinforce the fire barriers in the test conducted in May. After Graham and Dave from the NHBC had left, Paul Reid and I reflected on the fact that the NHBC did not seem particularly impressed and Dave had not been friendly. The reason they were not impressed was that they thought the test had been over engineered by using a 12mm cladding panel in large format.
- 7.5 I then went to Paul Evans' office to update him. Paul Reid floated in and out of the room for this meeting. Paul Evans asked both of us what the NHBC's concerns appeared to be; Paul Reid and I told him what we had talked to the NHBC about, and as we did so, Paul Evans made notes on his whiteboard. I was shown a copy of a photograph of a whiteboard during one of my interviews with Linklaters LLP, which I recognise as an image of the notes that were made during the meeting with Paul Evans and Paul Reid on 19 June 2014. The first five rows are Paul Evan's handwriting. The final row is in my handwriting following a joint discussion on what the images may have shown.
- 7.6 The column headed "NHBC Concern/Challenge" was used to record the points that Paul Reid and I told Paul Evans that Graham and Dave had raised in the discussion with us earlier that day. The points in the "CX Response" column reflected the points that Paul Reid and I had told the NHBC in response. The "Action Required" column contains the action points that we agreed. I believe that the "Risk" column reflected our assessment of the risk of the NHBC not approving RS5000 for use in its projects in light of the challenge/concern identified; the "rank" column was our assessment of the level of that risk. The first entry marked 1 therefore reflected what we regarded as the greatest risk that the NHBC would not approve the product for use in its projects.
- 7.7 As to the first five horizontal rows, which were written by Paul Evans: "**VERTICAL JOINTS NOT PRESENT ON TEST**": Dave (who I believe was formerly employed by the BRE) had asked about the size of the panels used in the test. The panels that Celotex had used were three metres wide and had been used in landscape format meaning there were no vertical joints in the cladding panels on the test rig. Dave thought that the presence, or absence, of vertical joints could affect the performance of the system in the test. We recognised that if this continued to trouble the NHBC we might have to do a complete re-test with cladding panels of a different dimension so that vertical joints could be included. To the best of my knowledge, no one had considered this as a potential issue before the test was conducted.

- 7.8 "VENTILATION GAP AT CAVITY BARRIER LESS THAN 25MM": I was not sure why the NHBC raised this concern as the drawings for the first test, which I had previously sent to the NHBC showed a 25mm gap. I did not think that this had changed in the second test. I understand that it would have been impossible to have a gap of less than 25mm as otherwise the bracket would fill the cavity.
- 7.9 "12MM NOT SHOWN ON DRAWING": I think this was a reference to the fact that an 8mm cladding panel was shown on the drawings that I had sent to the NHBC 22 January 2014 and these needed updating to reflect the thicker cladding panel used in the second test.
- 7.10 "OVER-ENGINEERED DELIBERATELY": Graham and Dave were concerned that the system Celotex had arranged to have tested was not representative of a typical rainscreen cladding system that would be likely to be installed on a building. The NHBC wanted to see Celotex test with an ACM panel, but we believed that an ACM panel was likely to melt. Graham and Dave thought that the use of the Marley Eternit panel was "deliberate over-engineering". The reference in the Celotex response column to "only 12mm available for testing" is incorrect. In the "Risk" column, Paul Evans noted that the NHBC could impact the use of the product through the Building Control Alliance which oversaw both the NHBC and LABC, although tended to take its direction from the NHBC, which reaffirmed to me the importance of Celotex obtaining NHBC approval.
- 7.11 "POSITION OF BREATHER MEMBRANE": I do not believe anything turned on this concern and it could be addressed in the marketing communications.
- 7.12 After the discussion on these matters, I added a sixth line which stated as the NHBC's concern "Calcium silicate at level 2". This was a reference to the magnesium oxide board having been used to strengthen the fire barriers in the second test (magnesium oxide and calcium silicate are interchangeable when used in this way). I thought it important to note this as, for me, this was a big point and the one which no-one spoke about. It was not a concern which the NHBC had raised as they did not know about it.
- 7.13 There was a short break in the meeting whilst I went to print off the draft test report received earlier that morning and brought it back to Paul Evans' office. Paul Evans, Paul Reid and I looked at it together and noted that it did not refer to the magnesium oxide board in the list of components. My perception was that the Board had a clear view as to how they wanted to market the product even before the test report was available.

- 7.14 I did not know whether this was normal or not, but was told by Paul Evans that Kingspan were thought to be purposefully omitting information about their BS 8414 test from their sales literature. This was Celotex's intended approach. Paul Evans and Paul Reid made it clear in this discussion that Celotex would not correct the information in the BRE test report. Paul Reid asked whether anyone was likely to pick it up. There was some discussion about how often potential customers asked for the full test report and the conclusion was that this never happened.
- 7.15 As I understand it, fire barriers work by expanding in the presence of heat to close the gap in the ventilation shaft behind the cladding. The fire barriers expand into the cladding panel so the effectiveness of the barrier in restricting the spread of fire is dependent upon the cladding panel remaining in place. I wrote the "confidence in the fire barriers to expand" in the "proposed response" column on the whiteboard. The reason I wrote this was because in theory if you have an outer cladding panel that melts and falls off, the fire barrier has nowhere to expand to and is ineffective. It was a response we could have used if we disclosed the magnesium oxide board but one that probably wouldn't have held up by building control and the market.
- 7.16 The reason we considered omitting the image of the cladding from the test report to be a "medium risk" was because the chances of anyone looking at the full test report were low. I was asked by Paul Evans and Paul Reid to request the BRE to remove the final image from the test report as it would have drawn attention to the construction of the rig, specifically the type and depth of panels used, had anyone seen the photograph and compared it with others in the report. There was some risk in asking for the deletion in that it might prompt questions. However, although I did email the BRE and ask them to replace the photograph with another one, the BRE did not do so in the version of the report which came back to the business. I discussed this with Paul Evans and Rob Warren and it was decided not to press the point for fear of drawing further undue attention to it.
- 7.17 I did not escalate my concerns about the test report beyond the discussion which I had with Paul Evans and Paul Reid on 19 June 2014, as described above. My understanding at the time was that the decision not to refer to the magnesium oxide board had been taken by the Board and I was following instruction.
- 7.18 Following the meeting with the NHBC on 19 June 2014, I emailed Graham Perrior and Dave White to record the main action points to come out of our meeting with them.

- 7.19 I have reviewed the drawings and photographs of the test rig however I cannot see any reference to the ventilation gap being less than 25mm.
- 7.20 On 23 June 2014, I emailed Graham Smith and Luke Cresswell of Simco, attaching the four drawings provided by Luke on 22 January 2014. I requested these changes to be made to accurately reflect what had been tested in the drawings. In order to expedite the process of amending the drawings, I decided to visit Simco on 25 June 2014.
- 7.21 I emailed Luke after that meeting with a note of the follow-up points arising. These changes were requested to ensure that the drawings accurately reflected what had been tested in these respects.

8. SECTION G MARKETING

- 8.1 I had input on drafting the press release and product literature but again this was under Paul's instruction and input. I also had tasks such as double checking the description of the product with what was in the marketing material.
- 8.2 When I started in my position as Area Sales Manager I no longer had involvement in the development of the RS5000. I also had no involvement in the sale of this product to be used in Grenfell Tower.

9. SECTION H: RESPONSE TO THE LIST OF ISSUES

- 9.1 Please see responses below to the Inquiry's questions listed in their letter addressed to me on 25 June 2018 and to the Appendix 1 – List of Issues dated 31 May 2018.
- 9.1.1 Question 3 – *on what basis did Celotex market its RS5000 product as suitable for use in cladding systems in building over 18m in height?* This information is in the literature which was sent to architects and others who intended on using the product. There was a caveat included on the literature which stated that the literature was only applicable to what was tested.
- 9.1.2 Question 7 – *Are you aware of any further testing of RS5000 that has been carried out since the refurbishment work (including after the fire) by or on behalf of Celotex? If so, what has that further testing shown?* I understand that the BRE test house has recently rebuilt the rig and tested the product as per the marketing literature description of it; it passed albeit I was not involved in this.

Appendix 1

1) **Grenfell Tower's original design, construction, composition (completed 1974)**

I cannot comment on any questions in this section.

2) **Subsequent modifications prior to the most recent**

I cannot comment on any questions in this section.

3) **Modifications to the interior of the building 2012-2016**

I cannot comment or provide answers to any of these questions in this section.

4) **Modifications to the exterior of the building 2012-2016 (including cladding and insulation)**

I cannot comment or provide answers to any of these questions in this section.

5) **The fire and safety measures within the building at the time of the fire**

I cannot comment or provide answers to any of these questions in this section.

6) **Inspections**

I cannot comment or provide answers to any of these questions in this section.

7) **Governance/Maintenance**

I cannot comment or provide answers to any of these questions in this section.

8) **Communications with residents**

I cannot comment or provide answers to any of these questions in this section.

9) **Fire advice to residents 2012 to 14 June 2017**

I cannot comment or provide answers to any of these questions in this section.

10) **Response to Recommendations**

I cannot comment or provide answers to any of these questions in this section.

11) **The Fire**

I cannot comment or provide answers to any of these questions in this section

12) **The response of the emergency services**

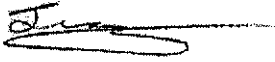
I cannot comment or provide answers to any of these questions in this section

13) **The aftermath**

I cannot comment or provide answers to any of these questions in this section

I can confirm that the information provided is true

I am willing for the statement to form part of the evidence before the Inquiry and published on the Inquiry's website.

Signed 

date 12/10/18

