
**Witness Statement of
Simon Alengrin**

I, Simon Alengrin, of Saint-Gobain Performance Plastics France, 34 rue du Moulin des Aulnaies, BP 14, 89120 CHARNY OREE DE PUISAYE, France will say as follows:

- 1 I am currently the Regional Sales Manager EMEA - Bioprocess Solutions at Saint-Gobain Performance Plastics, France.
- 2 I make this statement in response to the Grenfell Tower Inquiry's request for evidence under rule 9 of the Inquiry Rules 2006 made in its letter to Celotex's Solicitors of 10 October 2019 (the "**Request for Evidence**").
- 3 I refer in this statement to documents by reference to the Unique Reference Number assigned by the Inquiry (where that is available) or by reference to the identifying numbers assigned to the document on the version produced to the Inquiry (in the format C_*****).
- 4 The facts and matters that I relate in this statement are, save where the contrary appears, within my own knowledge. Where I rely on what others have told me, I believe that information to be true. As I explain further below, the Request for Evidence asks certain questions as to which I have no personal knowledge and I am therefore unable to answer them.

Career and experience

- 5 I have a degree in Chemistry from Chimie Paris Tech and a further degree in Business Studies from ESCP Europe.
- 6 I joined the Saint-Gobain Group (the "**Group**") in April 2010 working as Techno-marketing manager, reporting to the R&D Director of the Insulation Activity. I was

employed by Isover France (“**Isover**”), which is a wholly-owned subsidiary within the Group, based in Courbevoie, France. Isover is a manufacturer and supplier of mineral wool insulation products and systems.

- 7 Isover was part of the “Insulation Activity” business unit. “Insulation Activity” is a term which referred to a business unit within the Group and as such was of relevance to a number of different companies within the Group, including Celotex. The Insulation Activity no longer exists following a transformation project in which the Group was reorganised.
- 8 My role was to consider products and technologies going beyond those which the Insulation Activity already sold and how these could be integrated in our product offering. This could be through internal R&D projects, partnerships with third parties, or by acquisition. This work did not have a particular geographical focus.
- 9 Shortly after joining the Group, as part of my work, I started to focus on insulating foams because of the growing interest in PUR and PIR, both within the Insulation Activity and generally in the market. One of the main drivers of this interest was the imposition of increasingly ambitious energy efficiency requirements for new and refurbished buildings in the EU and other markets. I had no prior knowledge of PUR and PIR based insulation products. I was a member of a working group, which was working on establishing the Insulation Activity’s strategy in connection with PUR/PIR foams. I was tasked specifically with looking into the technicalities of foams, including how they are made, their mechanical properties, insulating properties and fire properties. This was with a view, in part, to understanding how foams compare with other insulation products such as stone and glass wool. I was also asked to consider the market opportunities.
- 10 In November 2010, I prepared a document entitled “White Book: An extensive Review of Polyurethane Insulation” which summarised the views I had reached and basic facts that I had assimilated about PUR and PIR.¹ This was intended for internal

¹ SA/1: CEL00002856.

consumption within the Group. It considered many aspects of PUR/PIR foams including but not limited to fire safety and toxicity issues (see pages 17-18).

- 11 In late 2010, I sought the views of a fire expert at a chemical company operating in polyurethanes on an article published by Professors Stec and Hull of the University of Central Lancashire in October 2010 entitled “Assessment of the fire toxicity of building insulation materials”.²
- 12 This fire expert’s reaction to the article accorded with my own. She thought that fire toxicity is very complex to model and that small-scale toxic potency tests (which were the subject of the article) are not necessarily indicative of real toxic hazard in any given fire scenario. The concentration and nature of the gases emitted is highly dependent on the conditions of the fire. As she stated:

“The evaluation of the toxic hazard from fire (risk assessment) is very complex. It comprises many factors such as the amount of available combustible material, ease of evacuation, active and passive fire suppression etc. In many cases the toxic hazard of the fire is mainly determined by the building contents, not the envelope. Building products, when installed and used in a responsible way, only show limited contribution during the period of evacuation. Analysis of statistics of a fire have indicated that with PIR insulation, most of the insulation is still in place in the later stage of a fire and after the fire. ... This has not been taken into account in the small scale tests”.

- 13 In late 2010, I was provided with a report titled “Insulation Board Feasibility Study”.³ I understand that this report was prepared before I joined the Group. It provided a detailed analysis of the PIR industry in the UK and considered (among other things) fire safety and toxicity issues (see internal pages 40-53).
- 14 In the course of our due diligence work, certain external reports were commissioned from specialist environmental and health consultancies. One was by Environ,⁴ which

² SA/2: CEL00002970. The article may be found at SA/3: C_03517

³ SA/4: CEL00008480.

⁴ SA/5: CEL00003048.

considered the properties of the chemicals during the PIR life cycle and it is in that context that the report referred to in Question 2(b) of the Request for Evidence was produced in March 2011. Environ also sent us a slide deck dated 7 March 2011.⁵ This slide deck referred to the fire and toxicity risks of PUR/PIR and stated (among other things) that:

14.1 *“limited published data is available to support the finding that smoke or decomposition products from PUR/PIR is more toxic than that from alternatives. Based on existing information, the findings could be that if there is a difference in smoke toxicity, it is not pronounced enough to be easily defined.”* (page 11)

14.2 *“Smoke Toxicity: Not specific to PUR/PIR products. PUR/PIR smoke exhibits significant toxicity driven by particulates, HCN and CO. This is comparable to wood smoke. There is widescale uncertainty and ongoing research regarding this point.”* (page 13)

14.3 As regards fire safety performance, there was a “[g]eneral view that PUR/PIR does not perform as well as mineral based insulation” and “[c]oncern by some (not all) regarding toxic fumes generated during fire”, but that “[m]any involved in specification of building materials [were] not concerned provided building standards/code met” (page 36).

15 Alcimed, a technical consultancy firm, was also asked to prepare a study into PUR/PIR foams and in March 2011 it presented its findings in a comprehensive slide deck.⁶ This slide deck stated (among other things) that:

15.1 *“According to interviewees in fire safety departments, current regulations on PUR/PIR guarantee a safe use and these products are not associated to an increased risk of fire in buildings”* (page 18);

15.2 *“All risks focussing directly on health risks of PUR/PIR itself are deemed minimal by all interviewees”* (page 31);

⁵ SA/6: C_11914.

⁶ SA/7: CEL00002865.

- 15.3** The risk of fire was considered “*very low due to PUR/PIR use in the frame of already restrictive regulations*” (page 31);
- 15.4** Smoke toxicity was “*not considered as a factor to take into account in the product’s testing in the next 10-15 years*” (page 31); and
- 15.5** “*scientific authors ... interviewed feel there is no specific concern about PUR or PIR fire toxicity as their use follows the regulatory safety requirements*” (page 39).
- 16** I understand that Alcimed had produced an earlier report, in 2005,⁷ at a time when I was not yet employed in the Group. This is the report referred to in Question 2(a) of the Request for Evidence.
- 17** To the best of my knowledge there was no physical testing carried out by the Insulation Activity at this time, our work was desk-top based. It included review and consideration of the above-mentioned consultants’ reports, as well as the scientific literature (including the October 2010 article by Professors Stec and Hull referred to above and other publications identified in Alcimed’s discussion note dated January 2011).⁸
- 18** Our due diligence work considered PIR foam against a number of criteria which are applied to all insulation products so that a realistic view could be taken on both a relative and absolute basis. It aimed to consider how the product would behave; we wanted to understand the properties of the product, including any risks associated with it and how they could be mitigated. This analysis would be valuable in terms of evaluating the market opportunities from expanding the business into the PIR market. We considered many factors including, but not limited to: thermal and mechanical properties, compression strength, permeability to water and fire performance.
- 19** PIR is an organic product. The various reports which we received confirmed what I already knew which was that PIR, as any carbon based product, would burn under

⁷ SA/8: C_08527.

⁸ SA/9: C_08443.

certain conditions and would release various gases when it did so. These include carbon dioxide, carbon monoxide and, because PIR contains nitrogen, hydrogen cyanide. The effects on human life of combustion of PIR depend on the conditions in which it is burned. For example, the extent to which conditions are ventilated, the amount of oxygen available, and the absolute and relative concentration of the gases present.

- 20 However, as our due diligence highlighted, PIR is not the only combustible material used in construction and in many cases the toxic hazard of a fire is mainly determined by the building contents (including in particular home furnishings, which are frequently both flammable and toxic when burned). Furthermore, when PIR combusts, it forms a protective char layer that then protects the remainder of the material and reduces smoke generation up to a certain point (whilst at the same time helping the product to retain its structural integrity during a fire). My understanding, moreover, was that building regulations were designed to ensure that combustible construction materials were used in such a way that appropriate standards of safety and protection were achieved for occupiers.

Celotex

- 21 Following our due diligence work and usual internal approvals the Insulation Activity proceeded to enter the PIR market in the UK and did so by acquisition. Celotex Limited⁹ was, I understood, an established market participant with a good reputation. It was identified as the preferred target and Saint-Gobain Construction Products UK Limited acquired Celotex in the middle of 2012.
- 22 The Group often gives the opportunity to its employees to work in different subsidiaries, as a way of broadening experience. Partly to assist with the integration of the Celotex business into the Insulation Activity, I joined the business in July 2013. My initial role was Supply Chain Manager, reporting to the Managing Director who at that time was Craig Chambers.

⁹ Celotex Limited transferred the business to its parent company, Saint-Gobain Construction Products UK Limited ("SGCPUK"), with effect from 31 December 2015. In this statement, I refer to "**Celotex**" as meaning both Celotex Limited and SGCPUK, trading as Celotex.

- 23 My work for Celotex involved oversight and management of the Procurement team responsible for the purchase of raw materials, the negotiation and oversight of contractual relationships with suppliers and of the Transport team responsible for outbound logistics for the business. I was promoted to Head of Supply Chain and Customer Experience in September 2016, by Dean O’Sullivan, at the time, Celotex’s recently appointed Managing Director. I was a member of what was known as the “Management Action Group” (effectively the executive committee) from the beginning of my time at Celotex. I remained at Celotex for five years, returning to France to take a new role in October 2018.
- 24 Although I had done some research on PIR prior to joining Celotex, I worked on the basis that the local team knew much more about the product and its properties than I did.
- 25 The Insulation Activity started an R&D project, involving input from Celotex, in relation to PIR in around the spring of 2014. Whilst smoke production during a fire is inevitable since PIR is an organic product, Insulation Activity was interested in researching whether smoke production and/or toxicity could be reduced by modifications to the foam (the “**R&D Project**”). The Insulation Activity is continually looking at ways in which its products could be improved. Smoke and toxicity were one facet of that. I am not aware that this work identified any improvements which could have been made to the product as a whole.
- 26 I was aware of the R&D Project because I was copied into, and involved in, a number of emails and project reviews regarding it. Some emails concerning technical matters were provided to me on occasion. It was relevant for me to know, in broad overview, what was happening in terms of R&D projects as this could assist in discussions with chemical suppliers as part of my supply chain role. I facilitated discussions between colleagues where I could. However, R&D work was outside the scope of my role at Celotex, so my involvement in the project was limited; Celotex’s involvement in the project was taken forward by Celotex’s R&D team, led by Joe Mahoney. From around mid-2016, with the change in Celotex management, with my promotion to Head of Supply Chain and Customer Experience and with the Celotex R&D team being more familiar with the Group, my involvement in those topics largely stopped.

- 27 I knew that, in the course of this R&D Project, a number of toxicity tests were considered. In my view, all of these are essentially designed to enable data to be collected and used for the purposes of the comparison of products and their properties. There is, absent relevant regulation on the topic, no such thing as a definitive “pass/fail” benchmark toxicity test. Moreover, the various tests approach the data in relation to toxicity from different perspectives. All data from tests is useful, it is simply a case of working out what conclusions could properly be drawn from it. It is also important to understand that the performance of products in a real fire in a building may be very different to the performance in a laboratory test given the number of relevant variables. There is a difference between risk and hazard: the testing gives information about the former but the real life conditions are highly significant for the latter.
- 28 I understand that the test which the R&D Project chose was known as AFAP-3, which is a military marine standard that is generally considered to be very rigorous. I recall contributing to some emails regarding the choice of products to be used for the purpose of this test.¹⁰ The results of the test are summarised in the Technical Memo referred to in the Request for Evidence.¹¹ This would have been provided to me for the reasons explained at paragraph 26.
- 29 It was also during this period that I knew that the University of Central Lancashire had been asked to assist with the R&SD Project. I was not directly involved with that work though believe it progressed over time and I would occasionally enquire as to its status. I do not know what the scope and outcome of that collaboration was, nor when it stopped.

Celotex Marketing materials

- 30 My role at Celotex did not involve me having to consider the company’s marketing materials, I was not asked to, and did not do so. I do not recall seeing the deleterious

¹⁰ SA/10: C_03082.

¹¹ SA/11: CEL00003813.

materials document prior to preparing this statement and so cannot assist as to the basis of the statements referred to in the Request for Evidence.¹²

Investigation into allegations around testing

- 31** Paragraph 6 of the Request for Evidence refers to investigations into certain allegations made about Celotex's testing of RS5000. I understand that Celotex has, through its Solicitors, written to the Inquiry in relation to this issue.
- 32** I have no further evidence to give on the issues identified in Appendix 1 to the Inquiry's Request for Evidence.

I believe that the facts stated in this witness statement are true. I confirm that this statement may form part of the evidence before the Inquiry and acknowledge that, subject to the Inquiry's Redaction Protocol, it may be published on the Inquiry's website.



Simon Alengrin

Dated 15 November 2019

¹² SA/12: CEL00000582.