

THE GRENFELL TOWER INQUIRY

OPENING STATEMENT ON BEHALF OF PSB UK LIMITED

DATED 18 MAY 2018

INTRODUCTION

1. This statement is submitted on behalf of PSB UK Limited (“PSB”). It has been approved by the Managing Director of PSB, Mr Martin BOOTH.
2. For ease of reference and given the number of persons involved in the Inquiry, PSB is a commercial organisation Core Participant as identified by the Inquiry. PSB is a specialist company trading as a smoke control and air movement solution provider. PSB was involved in the design and commissioning, after its installation by others, of the smoke control system extant at Grenfell Tower at the time of the fire. The smoke control system formed part of the existing fire safety measures at Grenfell Tower; a matter which falls within the scope of Phase 1.
3. However, before any submissions are made, PSB should first and foremost want to take this solemn opportunity to express its deepest sympathy to the bereaved, to the survivors and to all others affected by the Grenfell Tower fire. Companies are made up of the individuals who work for them and everyone at PSB was shocked and saddened by the fire at Grenfell Tower and its devastating consequences for so many.
4. The important work being undertaken by this Inquiry and others involved in investigating the fire at Grenfell Tower has been acknowledged by PSB from the outset. It has and will continue to afford its full cooperation and provide whatever assistance it can.

SUBMISSIONS

5. PSB acknowledges that under r.11 of the Inquiry Rules 2006 it may make an opening statement to the Inquiry. Any such statement was requested to be succinct and restricted to the issues identified for Phase 1. The latest iteration of the programme for the Phase 1 hearings¹ restates that the focus will be on the factual narrative of the events of the night of 14 June 2017.
6. PSB is grateful for the disclosure of material by the Inquiry which is considered relevant to the issues to be considered in Phase 1.
7. No criticism is intended, but the tranches of disclosure which have provided evidence of fact and opinion which may be relevant to PSB has in large part only been disclosed in recent weeks. It is acknowledged that the vast disclosure exercise is ongoing and remains incomplete. At the time of writing, the process of identifying and assimilating the evidence disclosed is far from complete.
8. In particular, so far as it touches directly on PSB, the expert evidence² disclosed is expressed to be a review based on post-fire site inspections and that design documentation provided to the author by the Inquiry at the time the report was written.
9. It is noted that the expert to the Inquiry states that information particularly relevant to the provision of a final opinion on the smoke control system had not been placed before the author at the time of writing³. This includes, amongst other material, reference to copies of the relevant programmes for the system controls and the system logs showing activations, disablements and faults. PSB has already assisted the Metropolitan Police Service (“MPS”) with its enquiries in this regard and has, for example, provided a copy of the system programme and assisted with the retrieval of data from components of the system installed at Grenfell Tower.

¹ Posted on the Inquiry website 27 April 2018.

² Principally that of Dr Barbara LANE FREng CEng, dated 12 April 2018 and disclosed on 18 April 2018 [BLAR00000001_0001].

³ Dr LANE, Report, 12 April 2018. Appendix J, J9.5.15 [BLAR00000025_0031]

10. Moreover, it is stated by the expert that an updated and amended report was possible if evidence were to be provided that had a bearing on the assumptions made, analysis or conclusions drawn. PSB welcomes this confirmation and therefore the approach to be taken by the Inquiry expert.
11. PSB can identify other relevant evidence for the Inquiry expert which does not appear to have been provided by the Inquiry or considered. It is hoped that this will assist the inquisitorial work of the Inquiry and that such a process will be put in place quickly to ensure that all relevant material has been considered before opinions are expressed in evidence or finalised.
12. Consequently, and in the circumstances, PSB is not in a position to make detailed substantive submissions in relation to what it understands might be the issues relevant to it for the purposes of Phase 1. However, PSB should be grateful for the opportunity to briefly say as follows.

PSB's role and involvement in the refurbishment works at Grenfell Tower

13. Each stage of the involvement of PSB in the design and commissioning of the smoke control system at Grenfell Tower has already been provided in chronological order to the Inquiry.
14. The smoke control system at Grenfell Tower was considered part of the Mechanical, Electrical and Plumbing Services ("MEP") to be installed as part of the refurbishment works at the Tower. So far as it related to smoke control, the requirements for the system were initially provided by Max Fordham LLP to PSB. The outline requirements from Max Fordham LLP and the other materials provided were taken up by PSB and used to develop a proposed design for a smoke control system to replace the existing one at Grenfell Tower.
15. By November 2014, JS Wright & Co Limited ("JS Wright") was appointed as MEP sub-contractor on the Grenfell Tower project. It was through JS Wright that PSB was

ultimately contracted to be involved in that part of the MEP works which touched on the smoke control system at Grenfell Tower.

16. The contractual relationship between PSB and JS Wright was in fact composed of seven separate Orders which were placed by JS Wright between 20 May 2015 and 29 March 2016. There was an Order for the design of the system. There were four Orders to supply a limited number of specific equipment parts for the system. There was an Order to supply an extension of the system to the boxing club and community room at the lower levels. PSB was not contracted to install the system (a task undertaken by or on behalf of JS Wright) but after its installation, JS Wright placed an Order for PSB to test and commission the system. Testing and commissioning took place between February and April 2016. In plain terms, the system was signed off and handed over to PSB's client, JS Wright on 28 April 2016.

The PSB design for the smoke control system at Grenfell Tower

17. The system design was recorded in Technical Submission documents, the last iteration of which was dated 15 March 2016⁴.
18. So far as relevant to smoke control systems, the PSB design set out to contribute towards meeting the relevant Requirements of Schedule 1 of the Buildings Regulations 2010, namely, Part B Fire Safety, B1 (means of warning and escape) and B5 (access and facilities for the fire service).
19. Approved Document B 2013 ("ADB 2013") to the Building Regulations provides guidance as to how the Requirements may be met whilst confirming that "there may well be other ways of achieving compliance with the requirements" and "thus there is no obligation to adopt any particular solution contained in an Approved Document if you prefer to meet the relevant requirement in some other way"⁵.

⁴ PSB00000214 Technical Submission for Lobby Smoke Control Rev06

⁵ ADB 2013, page 5, Use of Guidance, The Approved Documents

20. Section 2 relates to B1 and “Means of escape from flats”. Sections 2.25 to 2.27 relate to “smoke control of common escape routes”. Section 2.25 says that “Despite the provisions in this Approved Document, it is probable that some smoke will get into a common corridor or lobby from a fire in a flat, if only because the entrance door will be opened when the occupants escape. There should therefore be some means of ventilating the common corridors/lobbies to control smoke and so protect the common stairs. This offers additional protection to that provided by the fire doors to the stair. (The ventilation also affords some protection to the corridors/lobbies.) This can be achieved by either natural means in accordance with paragraph 2.26 or by means of mechanical ventilation as described in paragraph 2.27.”
21. The PSB system was a mechanical ventilation system. Paragraph 2.27 says that “As an alternative to the natural ventilation provisions in paragraph 2.26, mechanical ventilation to the stair and/or corridor/lobby may be provided to protect the stair(s) from smoke. Guidance on the design of smoke control systems using pressure differentials is available in BS EN 12101-6:2005.”.
22. The PSB mechanical ventilation system used de-pressurisation principles in order to achieve the performance objective of ADB 2013 at paragraph 2.25 i.e. to control smoke in a common lobby and protect the common stair. De-pressurisation systems use pressure differentials to inhibit smoke spread.
23. Consequently, PSB drew upon some of the further Guidance in BS EN 12101-6:2005 and the specific performance criteria set out therein to develop its building appropriate solution. In short, the objective of ventilating a common lobby and so protecting the common stair was to be achieved in the PSB system by meeting specific performance criteria set out in BS EN 12101-6:2005. This is set out in the PSB Technical Submission.
24. PSB considered that the above design approach was appropriate, given the limitations posed by the nature of the refurbishment, and that its system functioned effectively when it was commissioned. PSB understands that its approach will be scrutinised by the Inquiry and full cooperation will be afforded.

25. Irrespective of any potential issues as to the interpretation of specific Regulations or Guidance and their application to the smoke control system as designed by PSB, there are perhaps some important matters that can be identified at the outset (because they are already set out in the expert evidence so far disclosed by the Inquiry) and which, so far as PSB is concerned, are unlikely to be controversial.
26. First, ADB 2013 says that fires do not normally start in two different places in a building at the same time and that there is a low probability that a fire will spread beyond the flat of fire origin⁶.
27. Second, consequently the design basis for smoke control of common escape routes assumed in ADB 2013 is a fire starting in a single location, and being contained within a single compartment⁷.
28. Third, so far as design is concerned, smoke control systems are therefore only intended to address the effects of a fire on one floor⁸.
29. Fourth, as a result of the above, the smoke control system in this case could only ever operate on one floor at a time and could not have been relied upon to control smoke on more than one floor at a time⁹.
30. Fifth, it could not have prevented smoke from fires on multiple floors impacting lobbies and the common stair on multiple levels^{10 11}.

⁶ Dr LANE, Report, 12 April 2018. Appendix J, J3.2.1 [BLAR00000025_007]

⁷ Dr LANE, Report, 12 April 2018. Appendix J, J3.2.2 [BLAR00000025_007]

⁸ Dr LANE, Report, 12 April 2018. Appendix J, J2.1.11 [BLAR00000025_006]

⁹ Dr LANE, Report, 12 April 2018. Appendix J, J9.4.3 [BLAR00000025_0030]. Indeed, consistent with the design basis described by Dr LANE the system was only intended to operate in this way.

¹⁰ Dr LANE, Report, 12 April 2018. Appendix J, J9.4.4 [BLAR00000025_0030]

¹¹ These matters are repeated elsewhere in the body of the Report prepared by Dr LANE including inter alia at: a) §2.18.18(e) [BLAR00000001_0052], where it is stated that the need for smoke control on multiple lobbies simultaneously was never the intention of the relevant guidance or regulations, and b) §2.22.10 [BLAR00000001_0061].

Testing and commissioning of the smoke control system at Grenfell Tower

31. A detailed testing and commissioning process was undertaken by PSB between February 2016 and April 2016. The specific performance criteria in BS EN 12101-6:2005 informed the commissioning process and further assistance will be provided in relation to the detail of precisely what was involved as necessary.
32. PSB is satisfied that on 28 April 2016 when the system was handed over to its client JS Wright, the smoke control system had been fully commissioned and compliance with the design specification had been demonstrated. The final commissioning process was witnessed and attested to by JS Wright¹². Other parties, including other Core Participants, also witnessed the commissioning of the system.

Maintenance and servicing requirements

33. Servicing and maintenance requirements were made plain by PSB to its client. They were first set out in the Technical Submission itself and included reference to BS 9999. They were also set out in the Operating and Maintenance Instruction Manual. The servicing and maintenance requirements were standard and typical of all such systems.
34. On 5 May 2016 Witt & Son UK, the contract servicing and maintenance arm of the Witt UK Group of which PSB is a member, sent a proposal to JS Wright for a maintenance contract in respect of the smoke control system which had by then been commissioned. The duration of the proposed contract was for 12 months which included 6-monthly fixed maintenance visits. The proposed cost was £3,600 + VAT¹³. The proposal for a maintenance contract was not taken up.

¹² The version of the Above Ground Commissioning Report which seems to have been provided to the Inquiry expert appears at RYD00000557_1249. The actual Report provided by PSB and disclosed to the Inquiry includes the signatures of engineers from both PSB and JS Wright and makes recommendations as to servicing.

¹³ A copy of this proposal was subsequently included in the JS Wright O&M Manual [RYD00000557_1239]

Reporting of a potential fault in June 2017

35. For the sake of completeness and because of its potential relevance to the matters to be addressed in Phase 1, some fourteen months after the smoke control system was commissioned by PSB, but before the fire on 14 June 2017, PSB was contacted by an Aftercare Administrator of JS Wright. The extent of PSB's further involvement was as follows.
36. On 6 June 2017 at 09.14 an Aftercare Administrator at JS Wright, sent an email to the generic sales email address of PSB indicating that a report had been made to them by Rydon Maintenance of a potential fault report. It was said that "the AOV's are not opening at Grenfell Tower". It was stated that JS Wright would like to arrange an appointment for a PSB engineer and an engineer from Direct Control Solutions to attend to investigate and resolve any issues.
37. This, and further follow up emails sent by JS Wright to the generic sales email address of PSB, were processed internally and have been disclosed to the Inquiry.
38. On 8 June 2017 at 09.49 Witt & Son UK, the contract servicing and maintenance arm of the Witt UK Group, emailed JS Wright to indicate that, having made internal enquiries, no maintenance contract had been put in place by JS Wright or its client with them. A copy of the maintenance proposal previously sent to JS Wright on 5 May 2016, with the same costings for engineer service visits, was therefore attached for JS Wright to consider further¹⁴.
39. On 12 June 2017 at 15.34 an Aftercare Administrator at JS Wright, responded to the email requesting that Witt & Son UK quote only for one service visit in relation to the potential fault report.

¹⁴ PSB00000108

40. On 12 June 2017 at 15.52 a response was sent. The proposed cost was £1,800 + VAT. No response was received and no instructions were received by PSB or Witt & Son UK to attend the Grenfell Tower site to investigate the potential fault report.
41. PSB has no direct information in relation to the report of the potential fault and is unable therefore to assist in relation to the operational state of the smoke control system on the date of the fire. PSB has already assisted the MPS in relation to the retrieval of data from components of the system installed at Grenfell Tower and will continue to afford such assistance as it can.

Dated 18 May 2018

Shoosmiths LLP