



with Stannah Lifts London and retrained to become a lift engineer. This took place in 1980.

5. After a period of two years, supplemented with attendance at night school, I qualified as a lift engineer in 1983 with J5 and J26 certification, which were the industry standards at the time.
6. I stayed with Stannah Lifts until 1986 after which time I was headhunted to join a newly formed Company, Key Elevators where I stayed for three years working across the UK on various projects. At the same time, I enrolled on distance learning courses with the National Association of Lift Makers "NALM", the courses being L1, L2, L3 and L4. To the best of my recollection I believe I undertook four courses.
7. Having secured the additional qualifications, I joined Kone in 1989 to form a new department for London, called London Modernisation. I was employed as the Contracts Supervisor. At that time, we ran only major, bespoke lift projects in London which included working at New Scotland Yard, Centre Point and 55 Broadway.
8. In October 1996 I was approached by Apex Lift & Escalator Engineers Ltd and joined that organisation.

*Employment at Apex Lift & Escalator Engineers Ltd “Apex”*

9. I have been working for Apex for some 23 years.
10. I started my employment as a Repair Manager. That required me to address any repairs with an existing lift, from the most minor up to a machine/control system change.
11. As the business progressed, I moved into the construction side of the company. My role changed to construction manager and I was responsible for running the construction department at Apex.

12. I am currently engaged as the Construction Director within Apex. I have held this role since 2006. This role entails the day to day oversight of the construction department from the initial sales tendering stage, through to the completion of projects.

13. During my time with Apex I have undertaken a series of internal and external training courses. I attach copies of my training certificates marked Exhibit “(GLP/1: )”, which have provided me with following qualifications:-

- Engineering Industry Training Board J26 – Lift Erection 6<sup>th</sup> February 1990
- Engineering Industry Training Board J5 – Lift Practice 12<sup>th</sup> April 1990;
- Certificate of Verified Achievement EOR/202 NVQ “Working safely in an engineering environment” 14<sup>th</sup> January 2003;
- British Safety Council Health and Safety for managers 13<sup>th</sup> November 2013
- Site Safety Plus - Refresher in Site Managing Safety Training Scheme 14<sup>th</sup> November 2017;
- Emergency First Aid at work 21<sup>th</sup> February 2019;
- Drug and Alcohol Awareness 29<sup>th</sup> March 2019
- Health and wellbeing 29<sup>th</sup> March 2019;
- Stress Awareness in the workplace 2<sup>nd</sup> April 2019;
- Construction Skills Certification Skills CSCS 13<sup>th</sup> September 2019;
- Asbestos Awareness

14. I continue to receive refresher training for both safety and lift developments. I have attended lift forums to ensure that I am aware of any changes to lift regulations and or standards. These are arranged by the Lift Engineers Industry Association “LEIA” who are the current trade organisation for lift companies.

#### *Apex work at the Grenfell Tower*

15. I am aware of the fact that Apex undertook two projects at the Grenfell Tower.

16. I was involved in the modernisation project from an early stage. I was aware that Apex had been awarded a project at the Grenfell Tower. The specification was handed

over to me from our sales team. I reviewed the specification document for the project which I recall was very detailed. This was not unusual given that it had been prepared by Butler and Young Consultants Limited (“BYCL”). A copy of the specification is attached marked Exhibit “(GLP/2: URN APX00005521)”.

17. Once I reviewed the specification, a job file was created. The next stage was for a site survey to be carried out which would enable the production of general arrangement drawings and lift car drawings. A copy of the drawings are attached marked Exhibit “(GLP/3: URN APX00000116)”.

18. The general arrangement drawings were issued to BYCL for approval. The time frame for approval was normally around 2 weeks. Usually the process would include consultation as between BYCL and their client.

19. Apex would then receive approved drawings with BYCL comments. The drawings were considered and then reissued back to BYCL with comments from Apex. I have looked for and cannot find any annotated drawings. Once the drawings were approved the manufacture and procurement of the materials needed for the projects were sourced. This process usually takes approximately 16 weeks, given the fact that the items required are made bespoke to the building in which the project was being undertaken. To be clear there was no site presence at this time.

20. Once the materials were to hand, we could move to a site presence. I believe that there was a pre start meeting as between myself and BYCL and possibly the Tenant Management Organisation although I can’t recall specific details at this time. The pre start meeting would be used to determine the delivery schedule, welfare hoardings access to the building by site engineers.

21. Apex engineers then attended at the site, and the work commenced to the agreed programme.

22. There was usually a fortnightly site meeting with myself and BYCL to monitor progress. During this time, I engaged a project manager, Roger Anthony, to undertake day to day on site monitoring of Apex projects. He would have then attended the meetings with BYCL all the way to completion.

23. My role was to oversee the project and any issues raised would have been reported to me. As far as I can recall there were no significant issues concerning this project.

24. The inquiry have asked a number of questions which I will now address below:-

**Question 1:** Please describe your role within Apex, how long you have been in this post, any relevant roles within the lifts industry and your qualifications/training/experience in respect of lifts.

**Answer:** Please see paragraphs 3-14 above.

**Question 2:** What, if any, involvement did you have in the lift modernisation project at Grenfell Tower (including any subsequent servicing) in or about 2004-2007.

**Answer:** Please see paragraphs 15-23 above.

**Question 3:** How did Apex come to be engaged as the lift specialist contractor in relation to Project 1 within the Grenfell Tower (with reference to any tendering process undertaken)?

**Answer:** As explained in paragraph 16 above, Apex were awarded the project at the Grenfell Tower. I was not involved in any tender process.

**Question 4:** Please exhibit the final version of the contract pursuant to which Apex was engaged in respect of Project 1

**Answer:** A copy of the contract dated October 2004 is attached marked Exhibit “(GLP/4: URN APX00005619)”.

**Question 5:** Please set out the scope of Apex’s duties in respect of Project 1. In addition to complying with the Butler & Young Lift Consultants Limited (“Butler & Young”)

specifications, did Apex have a duty to ensure that the new lifts installed at Grenfell Tower were compliant with the requirements for lifts in high-rise residential buildings (as set out in the Building Regulations and associated guidance/the lifts guidance) and to advise Butler & Young or Kensington and Chelsea Tenant Management Organisation (“KCTMO”) if that was not the case?

**Answer:** The scope of work in this project was to modernise the lifts in accordance with the BYCL detailed lift specification.

The question in relation to the duties owed by Apex should more appropriately be directed to the Company for a response.

**Question 6:** Identify the party/parties with whom Apex entered into relationships in order to carry out its role, describing the purpose of those relationships. Please also set out which organisations and individuals Apex staff (including you, if applicable) regularly had contact with respect of its Project 1 works.

**Answer:** In my role as Construction Manager, as I was at the time, I can confirm that as far as I can recall, Apex, via myself had contact with the following main companies:-

Ian Moorhouse, Steve Ellis	BYCL – Lift consultants
Robin Callaghan	Kensington and Chelsea Borough Council Tenant Management Organisation “KCBC TMO”
Eamon Reid	Thames Valley Control “TVC” – lift control systems suppliers
Ian Justice	SASSI - machine suppliers
David Yates	Prop Brook - lift manufacturers (doors and cars)
Darren Mills/John Mills	Drury Court - builders
Ben Leach	Stentorgates – indicator suppliers
David Dewhurst	Dewhurst - landing Buttons suppliers
ILE (International Lift	

Equipment)	GAL HA - door Equipment suppliers
Alan Warren	A&A Electrical - electrical cabling and associated lift equipment

**Question 7:** Provide an outline of the specifications for the lifts and related equipment provided to Apex for purposes of the modernisation project at Grenfell Tower, including but not limited to:

- Legible final construction drawings for the two new lifts at Grenfell Tower, as installed during Project 1;
- Please set out the fire rating of the lift doors at Grenfell Tower on Project 1 completion and exhibit the relevant certificates.

**Answer:** Please see the attached specification from BYCL which has already been exhibited as “(GLP/2: URN APX00005521)”.

- Please see the general arrangement and lift car drawings which have already been exhibited as “(GLP/3: URN APX00000116)”.
- The doors were manufactured to the BYCL specification and manufactured and supplied by Prop Brook. I cannot locate any certification for the doors but that Company may be able to assist the Inquiry in providing information.

**Question 8:** Please confirm whether an Operation and Maintenance (‘O&M’) Manual was provided to the client following completion of Project 1 work and exhibit this document.

**Answer:** An O&M Manual was issued to BYCL. Whilst the manual cannot be located, a copy of the letter despatching the same to BYCL is attached marked “(GLP/5: URN APX00000067)”.

**Question 9:** What, if any, role did you have in liaising with Butler & Young in respect of Project 1? As part of any liaison, did Apex/Butler & Young discuss compliance of the new lifts with lifts guidance including in respect of any requirement for ‘firefighting lifts’?

**Answer:** There was a degree of liaison as between Apex, via myself and BYCL as to the project. However, such discussions were limited to the actual work to be carried out. There were no discussions as to the specification, given that BYCL were the lift consultants and the design aspects of the job were their domain.

I am not clear as to what is meant by the reference to new lifts. No new lifts were installed in this project. This project related to the modernisation of existing lifts, which were fireman’s lifts as specified in accordance with BS 5655.

**Question 10:** Section 2A.70 of the Butler & Young specifications (April 2004) sets out the requirements for the Fireman’s Control subsystem<sup>1</sup> within Grenfell Tower. With reference to this section, please confirm:

- a. The location, number and operability of Fireman’s Control switch(es) in place at Grenfell Tower before Apex carried out the modernisation project;
- b. The location and number of Fireman’s Control switch(es) installed and/or modernised by Apex as part of the project and how they were connected to the lifts;
- c. Section 2A.14 (8) required “firemans control...on each lift”—were two switches installed (one per lift) and if not, why not?
- d. Your understanding of the intended operation/functionality of a Fireman’s Control subsystem in the event of a fire (including how it was intended to function where two lifts were in operation);



e. Whether the Fireman's Control switch(es) installed by Apex were fully compliant with the requirements in section 2A.70 of the Butler & Young specification? If so, how was such compliance confirmed? If not, in what respect did they diverge from section 2A.70 requirements?

f. Whether the correct operation of the Fireman's Control switch(es) was checked during or following the Project 1 works, by Apex or anyone else (insofar as this is within your knowledge). If so, what was the result of the check(s) (please exhibit any relevant documents/certificates)?

g. What was/is Apex's expectation for sufficient maintenance/testing of a Fireman's Control Switch following the completion of Apex's modernisation work? In particular, should any maintenance/testing involve the insertion of a drop key, activation of the Switch and observing the effect on the lifts, rather than just a visual inspection of the Switch?

**Answer :**

- a. I am unable to assist with the location, number and operability of Fireman's Control switch(es) in place at Grenfell Tower before Apex carried out the modernisation project. Regrettably I cannot locate any pictures prior to the start of the project.
- b. From the general arrangement drawing it appears that the Fireman's Control switch is located between the lifts at the ground floor. From my recollection and review of the drawings, the switch would have been connected to the TVC control system, located within the control room on the roof of the building.
- c. From the drawings, only one switch was fitted to operate both lifts as they were duplexed as identified at Section 2A.14 (2) of the specification. As they operated in this way, one fireman's switch allowed for control of both lifts. As previously advised the general arrangement drawings were reviewed and approved by BYCL and no requirement for two separate switches was made on the snagging list once the work had been completed.

- d. I would explain the intended operation/functionality of a Fireman's Control subsystem in the event of a fire as follows:-
- The fire rescue service would operate the fireman's switch by an Express type drop key which they would hold;
  - The key would trigger the control system, the lifts would stop at the nearest floor without the doors opening and announce "lift returning to ground floor on fire control";
  - Both lifts would return to ground and park with the doors open;
  - The fire rescue service would have control of the lifts. In order for them to reach a designated floor they would apply constant pressure to the floor button to enable the car doors to close and travel up to the intended floor.
- e. As stated above the works which Apex tendered for were in accordance with the specification produced by BYCL. The switch was procured through an external provider and the specification that BYCL provided to Apex would have been passed on to that company. Regrettably there is no other documentation that I am aware of which now exists in relation to the Fireman's Control switch. This was an item that would have been tested for its operational capability by BYCL at the witness test.
- f. Please see response to e above.
- g. In this project, Apex undertook a one year period of DLP. This was to ensure that all the work that the Company had carried out was working safely and efficiently. This was an area of work which would have been carried out by the Apex service department.

In terms of Apex's expectation, that is a question more properly directed to Apex.

**Question 11:** In relation to the status of the two lifts at Grenfell Tower following completion of Project 1 modernisation, please confirm:

- a. Whether Apex regarded the two lifts installed to be 'new lifts' for purposes of lifts guidance;
- b. Your understanding of what constitutes a 'firefighting lift' in the context of lifts guidance.
- c. Whether by way of the Butler & Young specifications (April 2004) or otherwise, Apex was required to ensure that the Grenfell Tower 'modernised' lifts met the definition of a firefighting lift;
- d. If Apex considered that a firefighting lift was not provided for in the specifications but was required (having regard to the nature of the building and the lifts guidance), what if any steps did Apex take to highlight this to Butler & Young/KCTMO? If no such steps were taken, why not?
- e. In your experience of installing new lifts in high rise residential buildings (following the implementation of 'firefighting lift' requirement within lifts guidance) was it unusual for non-firefighting lifts to be installed in such a building?
- f. With reference to correspondence, documents and/or conversations, were other organisations (including KCTMO, LFB, RBKC Building Control etc.) and individuals (including Carl Stokes) aware that the lifts did not meet the definition of a 'firefighting lift'? If so, please set out any information about the extent of that awareness and any communications surrounding this issue (to the extent of your knowledge).
- g. What, if any, was your role in the handover and compliance testing of the two new lifts following completion? How did these processes take place and what were the results? Who else was involved in this process?

**Answer a:** The project identified in the specification was not for the installation of new lifts. The work that Apex was asked to undertake was modernisation of the existing lift equipment..

**Answer b:** I have attended a number of lift courses and am a trained lift engineer. In this context I can advise that a firefighting lift is a lift which has protection, controls and signals which enable it to be used under the exclusive control of the fire-fighters.

**Answer c:** As I have stated above, the job specification provided by BYCL set out in detail, the parameters to which the works being carried out by Apex were to be executed.

**Answer d:** This is a question which ought properly to be directed to the Company.

**Answer e:** To date I have never worked on a project, in a high rise residential building, where I was asked to replace existing lifts and install firefighting lifts. I have however carried out work/ overseen work where firefighting lifts were installed in new builds.

**Answer f:** At the time the original lifts were installed into Grenfell, they should have complied with the fire standards relevant at the time. The reference to firefighting lifts only arose in the guidance in 2003.

The fact that the lifts were not firefighting lifts would have clearly been known to BYCL when then they prepared out the specification.

**Answer g:** I was not involved in the day to day on site activity. I would reiterate, that the work Apex was undertaking was not to install new lifts but to modernise existing lifts. As set out in paragraph 22 above, the project manager would have been in control of the project and overseen/carried out completion and tests of the work that was undertaken. At the time the project manager was Roger Anthony. A lift tester would also have been involved together with a member of staff from BYCL to witness the test. A representative for the TMO would also have attended the hand over process. The process of handing over a lift is as follows:

- Lift tester, tests the lift;
- Once lift tester is happy with results and his recorded test items are complete a witness test is arranged;
- Witness test carried out to demonstrate the function of the lift and all safety items function correctly;

- The Lift consultants will issue an items list (snagging list);
- Once the items list is completed, the lift is usually put into service.

*Project 2 (2015 works to install four new lift entrances)*

**Question 12:** What, if any, involvement did you have in Project 2 i.e. the lift modernisation works at Grenfell Tower in 2015 (including any post-works defect liability period)?

**Answer:** I was involved in this project to procure materials and then undertook an overarching supervisory role. The actual works were managed on site by the Apex Construction manager who at the time was Gary Ager.

**Question 13:** How did Apex come to be engaged as the lift specialist contractor in relation to Project 2 at the Grenfell Tower (with reference to any tendering process undertaken).

**Answer:** As far as I am aware, Apex tendered for the projects.

**Question 14:** Identify the party/parties with whom Apex entered into relationships in order to carry out its role, describing the purpose of those relationships. Please also set out which organisations and individuals Apex staff (including you, if applicable) regularly had contact with respect to Project 2.

**Answer:** As set out above, I had only limited involvement in this project. Those that I am aware of, with whom Apex were engaged were TVC, ILE and Dewhurst. Gary Ager managed the work and I understand that he has also been asked to provide a statement to the Inquiry, in relation to the works undertaken at Grenfell Tower. Gary Ager would be better able to provide a response to this question.

**Question 15:** Please exhibit the final version of the contract pursuant to which Apex was engaged in respect of Project 2.

**Answer:** The final version of the contract is exhibited marked “(GLP/6: URN APX00007916)”.

**Question 16:** Provide an outline of what Apex was required to do in relation to Project 2 and how these requirements were set out.

Please further confirm:

- a. Prior to commencing its work on Project 2, did Apex consider whether the lifts were/remained compliant with the lifts guidance, including in respect of ‘firefighting lifts’ status?
- b. As part of Project 2, was Apex required to ensure the lifts’ compliance with the standards for a ‘firefighting lift’ within lifts guidance?
- c. If not, did Apex consider that industry standards and/or the lifts guidance required the lifts in Grenfell Tower to meet the ‘firefighting lift’ standard?
- d. To the extent of your knowledge, did organisations and individuals involved with the refurbishment of Grenfell Tower appreciate that the lifts did not meet the definition for a ‘firefighting lift’?
- e. If Apex considered that a firefighting lift was not provided for in the specifications but was required (having regard to the nature of the building and lifts guidance), what if any steps did Apex take to highlight this to other organisations?

**Answer:** Please see my response to question 14 above. Gary Ager would be better able to provide a response to this question.

**Question 17:** What, if any, changes were made as part of Project 2 to the Fireman's Control subsystem (including switches) in place after Project 1's completion? Please set out the location of any switches and whether/how they were connected to the lifts.

**Answer:** Please see my response to question 14 above. Gary Ager would be better able to provide a response to this question.

**Question 18:** Did Apex test the Fireman's Control switch(es) to confirm they were fully operable on conclusion of Project 2 works? If so, what was the result and how was this recorded (please exhibit any relevant certificates)?

**Answer:** Please see my response to question 14 above. Gary Ager would be better able to provide a response to this question.

**Question 19:** What is Apex's expectation for sufficient maintenance/testing of a Fireman's Control Switch following the completion of Apex's Project 2 work (e.g. by an incumbent maintenance provider)? In particular, should any maintenance/testing involve the insertion of a drop key, activation of the Switch and observing the effect on the lifts, rather than just a visual inspection of the Switch? Please exhibit/reference the O&M Manual if appropriate.

**Answer:** Please see my response to question 14 above. Gary Ager would be better able to provide a response to this question.

### *Projects 1 and 2*

**Question 20:** What, if any, measures were put in place by Apex to prevent:

- a. The lift car, the lift well and the lift motor room filling up with smoke in the event of a fire;
- b. Providing a supply of clean air in a standard pressurisation system within the lift shafts, to prevent smoke ingress.

**Answer:** In relation to project 1 the work was carried out in accordance with the detailed specification produced by BYCL. In relation to Project 2, Gary Ager would be better able to provide a response to this question.

**Question 21:** Please set out full details (make, model, and supplier) of the fire control switches installed by Apex as part of Project 1 and/or Project 2. Please provide photographs of the switches installed at Grenfell Tower or equivalent units.

**Answer:** In relation to project 1, as far as I can recall, the fire control switches were procured from AA Electrical. There is no other documentation that I have seen that identifies the switches in terms of make and model. I had limited involvement in project 2 and cannot assist.

**Question 22:** Did you have concerns, at any point in time, about whether the Grenfell Tower lifts were compliant with industry standards, lifts guidance or otherwise fully operable (including in respect of the Fireman's Control subsystem)? If so, how and to whom were these concerns expressed? What, if any, remedial action was taken (insofar as this is within your knowledge).

**Answer:** At the time that the works were being carried out in relation to project 1, the specification as detailed by the lift consultants, BYCL, was being followed. In relation to project 2, Gary Ager would be better able to provide a response to this question.




## Statement of Truth

I believe that the contents of this statement are true to the best of my knowledge and belief.

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

Signed



30<sup>th</sup> October 2019