

GRENFELL TOWER INQUIRY

PHASE 2 - WITNESS STATEMENT OF

IAN GODFREY MOORHOUSE

I, **IAN GODFREY MOORHOUSE**, will say as follows:

1. I make this statement further to my statement to the Grenfell Tower Inquiry dated 23 September 2019.

Butler and Young Lift Consultants Ltd

2. Butler and Young Lift Consultants Limited (BYLCL) provides lift and escalator consultancy services throughout the UK. BYLCL services include new lifts, lift modernisations (also referred to as lift refurbishments), feasibility studies, dilapidation surveys and maintenance contract preparation and management.
3. As explained in my first statement I was a Director of BYLCL from its incorporation in April 1992 until my retirement in May 2005. In that time BYLCL grew from two engineers to seven engineers.
4. From recollection and from reviewing information provided to me by BYLCL, I set out below some of the Company's clients and the work it undertook for those clients during my time at BYLCL, many within term framework agreements:

The British Museum

Over an eight year period, approximately 15 lift modernisations in these listed buildings and the development of a fully comprehensive lift maintenance contract with annual testing regimes.

The Science, Natural History, Victoria and Albert and various other South Kensington museums

Various lift modernisations and performance investigations – all in listed buildings.

House of Commons and House of Lords

Over an eight year period multiple lift modernisations, plus continual support on lift performance and varying malfunctions of 33 aged lifts.

Department of Trade and Industry Head Office

Investigation into multiple breakdowns on six round lifts, analysis and subsequent modernisation of the lifts.

Department of Environment, Food and Rural Affairs (previously the Ministry of Agriculture, Fisheries and Food)

Over a nine year period multiple lift modernisations and investigations throughout the UK.

The British Library

Investigations into escalator and lift malfunctioning issues, later the subject of modernisations.

Network Rail

Over a 12 year period throughout the UK over 120 lift modernisations, major repairs, lift replacements and investigations.

Corporation of London

Over an 8 year period BYLCL undertook over 80 lift modernisations on the Barbican Estate (residential) and developed a fully comprehensive lift maintenance contract and provided subsequent monitoring of the lift portfolio. BYLCL also undertook various lift modernisations on social housing owned by the Corporation.

Royal Borough of Kensington and Chelsea

The work undertaken by BYLCL included five or six lift modernisation projects for the Royal Borough of Kensington and Chelsea Tenant Management Organisation Ltd (KCTMO) and the modernisation of 10 lifts in the Borough's Town Hall.

Wandsworth Borough Council

Three lift modernisation projects.

Old Ford Housing Association

17 lift modernisations.

BYLCL also undertook work in social housing for other local authorities including Tower Hamlets, Southwark and Waltham Forest.

My Experience

5. I worked for 46 years in the Lift and Escalator Industry. I joined the Industry [REDACTED] undertaking a five year indentured apprenticeship with Otis Elevator Company. My area of speciality was lift modernisations and maintenance. I exhibited a short CV to my first statement as IGM 2.
6. Prior to jointly founding BYLCL I was managing director of Leonard Lifts Limited, which was eventually acquired by Kone Lifts. The Company was one of the largest independent UK lift companies and I was responsible for developing it into one of the leading specialists in lift modernisations. While at Leonard Lifts Limited I recall I was involved in lift modernisations at the following local authorities: Brent, Corporation of London, Enfield, Haringey, Hammersmith and Fulham, Islington, Lewisham, Morton, Southwark, Tower Hamlets, Waltham Forest and Westminster.
7. At BYLCL I undertook the preparation of specifications, tender documentation and project administration. Over the period of my 13 years at the Company I was responsible for some 160 - 170 lift modernisations and the development of multiple lift maintenance contracts.
8. In my considerable experience of working with local authorities over many years, they virtually all had their own lift department. The department would handle all day to day lift maintenance and repair and in terms of lift modernisations would act as a watching brief. Some local authorities would have one or two lift engineers, others more, depending on the size of the lift portfolio. These engineers would be experienced lift engineers familiar with the relevant codes and standards. Modernisations were generally expected to incorporate not only the current lift standards but also the standards laid down by that local authority.
9. At the time of undertaking the work at Grenfell Tower I was unaware of any other social housing lift modernisations of fireman's lifts that had achieved the standard of firefighting lifts. Given the then general understanding and interpretation of the codes and standards by lift consultants working in the social housing sector, the budgets available, the constraints of the buildings and the timescales, I would be surprised if

there were many, if indeed any, examples from that time of social housing lift modernisations of fireman's lifts that achieved the standard of firefighting lifts.

Grenfell Tower Lift Refurbishment – (2003 to 2007)

10. I am now [REDACTED] years old and it is 16 years since I retired from BYLCL and left the Industry. The Grenfell Tower lift refurbishment (ie modernisation), which began in 2003 and continued after I left BYLCL was one of many projects that I was involved in while at the Company. At the time of making my first statement I only had access to the limited documentation that was still retained by BYLCL in relation to the Project and as explained in that statement my memory of the project and my visual recollection of the lifts was limited. However, I have recently reviewed the Project Brief for Consultants for the lift refurbishment provided by KCTMO (which I did not previously have access to), [TMO00853783] that has since become available on the Grenfell Tower Inquiry's website.

Key Individuals at the Royal Borough of Kensington and Chelsea Tenant Management Organisation Ltd

11. Below I refer to the key individuals at the KCTMO who I dealt with in the Grenfell Tower Lift Refurbishment commencing in 2003. These people are mentioned in my first statement.

12. David Steppel was the KCTMO Senior Lift Engineer, subsequently promoted to the KCTMO Building Services Manager. The KCTMO managed a large portfolio of lifts on behalf of the Royal Borough of Kensington and Chelsea (RBKC). I remember David as being an experienced lift engineer with many years' experience of dealing with lift maintenance and modernisations both from the administrative side and operationally 'in the field'. He had a clear understanding of the relevant codes and standards. I was aware from other projects that David had developed the KCTMO's lift strategy (such as determining which lifts were most in need of modernisation) and that he had developed the KCTMO's own lift standards, although I never saw them.

13. John Rogers was the KCTMO's Project Manager from the very inception of the lift refurbishment project in 2003 up until site start in January 2005, when the role was undertaken by Sarah Everson of Brodie Plant Goddard.
14. I believe Robin Cahalarn took over as Senior Lift Engineer following David Steppel's promotion. Like David, Robin was an experienced lift engineer and was responsible for overseeing lift modernisations, repairs and maintenance. My recollection is that he assumed the role of monitoring the Grenfell Tower lift refurbishment project for the KCTMO on a day to day basis at the meeting held on 9 July 2003.

Lift Refurbishment Brief Provided to BYLCL by KCTMO

15. As mentioned earlier BYLCL had undertaken five or six projects for KCTMO (including the Grenfell Tower project).
16. I visited Grenfell Tower with my colleague Steve Ellis on receipt of the Invitation to Fee Tender and carried out a preliminary survey to understand the existing lifts and environment and the intent of the Project Brief.
17. Section 3.3 of Part 1 of the Project Brief identifies the problems being experienced by the residents of Grenfell Tower:
- Although the lifts were 18 years old, the intensive daily use of the lifts was estimated as equating to *"thirty years in any other block of flats"*;
 - *"Frequent breakdowns and problems with the control panels, controllers and drive equipment"*; and
 - The lift cars were *"not big enough"* for residents' ease of movement, particularly those with buggies or walking support which led to excessive waiting times and incessant lift usage.

These problems were a primary focus of the modernisation.

18. The detail of the lift refurbishment brief is set out in Appendix A of the Project Brief and formed the basis of the feasibility study that I undertook. The footer to Appendix

A says: "*djs rtc/Grenfell lift brief*". This signified to me that the author of Appendix A was David Steppel and that it was reviewed by Robin Cahalarn.

19. Section 4.10 of Appendix A is headed 'Standards' and required that the installation complied with BS EN-1:1998. This section also stated that firefighting and evacuation lift requirements shall be addressed. Section 10 is headed 'New Installation – General Requirements'. It was my understanding that this Section 10 reflected the KCTMO's lift standards at that time and there is no reference at all to firefighting lifts in this Section 10.

Firefighting Lifts

20. BYLCL was appointed in April 2003. My colleague Steve Ellis and I attended a Lift Refurbishment Project Briefing Meeting on 8 May 2003 where the development of the feasibility study was discussed. I exhibit as IGM 21 a copy of the minutes of this meeting [BUT00000005]. David Steppel and John Rogers of the KCTMO were present, but Robin Cahalarn did not attend. Item 2 of the minutes, headed 'Project Objectives and Scope of Works' records that John Rogers, as Project Manager, outlined the objective to undertake a feasibility study. There is no minuted reference to firefighting lifts.
21. I recall that I had a further meeting, I believe later that afternoon, with David Steppel and John Rogers, but I do not believe that this meeting was minuted. At that meeting the three of us clarified and discussed Section 10 of Appendix A of the Project Brief in greater detail. It was our view that even if extensive works were necessary, the lifts would still remain modernisations in an existing building. I believe the common understanding at that time was that there was no specific standard that considered or required lift modernisations of existing fireman's lifts to achieve the standards of a firefighting lift.
22. I do recall at this meeting that I did raise the issue of firefighting lifts. However I was instructed by David Steppel and John Rogers to proceed on the basis that fireman's lifts were required, consistent with Section 10 of Appendix A, and that consideration of firefighting lifts was not to be part of the feasibility study and no reference was

required in the study. I do not recollect making a note of this instruction or confirming it in writing to KCTMO. However as the approved contents of the feasibility study shows, this was the basis upon which I proceeded.

23. Subsequent to this later meeting on 8 May 2003 I undertook a survey of the lifts for the feasibility study.

24. At the Lift Refurbishment Meeting held on 9 July 2003 (minutes exhibited to my first statements as IGM 7 [BUT00000006]), which again Steve Ellis, I, David Steppel and John Rogers attended, but in addition was also attended by Robin Cahalarn, John Rogers confirmed that the options set out in the BYLCL's feasibility study were "*all in accordance with RBKC specification requirements*" (item 2 of the minutes). At the Project Start Meeting on 16 March 2004 (minutes exhibited to my first statement as IGM 10 [BUT00000007]) it was confirmed by John Rogers, as the Project Manager, that the Project would proceed on the basis of Option 3A of the feasibility study (item 2.1 of the minutes), the recommended option.

25. It was my understanding that firefighting lifts were required to serve every floor of a building. The lifts at Grenfell Tower at that time did not serve every floor.

26. While the lifts at Grenfell Tower were fireman's lifts, firefighting lifts shared certain or similar elements of equipment:

- Fire alarm recall to ground floor;
- Both fireman's lifts and firefighting lifts have a control switch at ground floor level. Note 10.23 of Appendix A of the Project Brief states: "*Fireman's switch at ground floor*", this giving control of the fireman's lift;
- Car and landing indicators scrolling 'Fireman's Lift Service' (or in the case of a firefighting lifts 'Firefighting Lift Service') when the control switch is activated;
- Speed of total lift travel in less than one minute;
- Two hour fire rated or assessed doors and entrances;
- Intercom from lift car to access level;

- Hands-free auto-dialler from lift pits, car top, in car and machine room; and
- Robust lift car.

27. It should be borne in mind that that the Project was, in common with many other social housing lift modernisations that I have undertaken, cost driven and subject to budgetary and programme considerations. The options proposed in the feasibility study already exceeded by some margin the KCTMO's original budget. In my opinion, to have installed firefighting lifts would have incurred significant further cost and extended project duration.

28. There were two items of lift equipment that were absolutely non-negotiable as far as David Steppel and the KCTMO were concerned. These were the 'Express' Anti-Vandal Drop Key Release and the Car Hatch.

'Express' Anti-Vandal Drop Key Release

29. 10.26 of Appendix A of the Project Brief states: "*Landing doors and fireman's switch to be operated by 'Express' anti-vandal drop key*". 10.1 of Appendix A also states: "*All equipment vandal resistant*". David Steppel insisted that the 'Express' anti-vandal drop key was used in common with other lifts in the RBKC lift portfolio and in line with the KCTMO standards to achieve restricted use and security. This key was also used on lifts in the RBKC portfolio for activation of fireman's control of fireman's lifts. In my experience KCTMO's use of the 'Express' anti-vandal drop key was consistent with the approach taken by many other local authorities.

30. The Euro triangular lock is a general-purpose lock and key release and is easily available: for example, it can simply be purchased on eBay and through various suppliers on Amazon. Consequently it is available for misuse by unauthorised persons. Examples which had been experienced (to my knowledge) by local authorities where an anti-vandal key was not adopted included:

- Unauthorised persons stopping the lift car anywhere in the lift shaft, perhaps trapping passengers inside the lift. This was also potentially dangerous as the unauthorised person could be faced with an open shaft and, as in the case of Grenfell Tower, a sheer drop of up to 200ft;
- Unauthorised persons accessing the top of the lift car to joyride on the top of the car; and
- Drug dealers/addicts leaving syringes, needles and silver papers in the lift shaft, lift pit and also machine room, which required specialist contractors to decontaminate the areas.

31. Of serious concern, the Euro key potentially allows an unauthorised person to activate the fireman's control switch, thus achieving control of the lift.

32. While use of the 'Express' anti-vandal drop key did not guarantee that the key would not fall into the hands of unauthorised persons, there were more stringent controls of availability, giving the KCTMO greater safety and security.

Car Hatch

33. My understanding of the Fire Fighting Lift code was that it prohibited a hatch where there is a 'dead zone', ie no lift floor service. Grenfell Tower had two of these dead zones.

34. David Steppel was insistent that there were to be no hatches to the lift cars in line with the KCTMO lift standards. As far as I was aware, there were no hatches in any lifts, fireman's or otherwise, throughout the KCTMO's lift portfolio.

35. The means of release of the hatch from inside the lift car and thus access to the lift shaft was regarded by the KCTMO as a hazard along with access to the top of the car by unauthorised persons using the Euro key as described earlier.

I believe that the facts stated in this statement are true.

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

Signed:

A handwritten signature in black ink, appearing to read 'Ian Godfrey Moorhouse', written over a horizontal dotted line.

IAN GODFREY MOORHOUSE

Dated:

8 June 2021