

**Report
for
Metropolitan Police Service**

**OPERATION NORTHLEIGH:
FIRE RISK ASSESSMENT FOR GRENFELL TOWER,
CARRIED OUT ON 20 JUNE 2016**



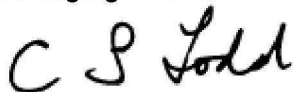
Fire Safety Consultants

March 2018

**OPERATION NORTHLEIGH:
FIRE RISK ASSESSMENT FOR GRENFELL TOWER,
CARRIED OUT ON 20 JUNE 2016**

Report by:

Colin Todd MSc, FIFireE, MIRM, MSFPE,
CPhys, FInstP, C.Build E, FCABE, CEng, FIET
Managing Director



C.S. Todd & Associates Ltd
Hutton Roof
Eglinton Road
Rushmoor
Farnham
Surrey GU10 2DH

Tel:

Fax:

E-mail: office@cstodd.co.uk

Website: www.cstodd.co.uk

Reviewed by:

Steven Daws BSc, MSc, CEng, FIFireE, C.Build E, FCABE
Technical Director



Malcolm Hoare, MIFireE
Associate Director and Head of Specialist Training



March 2018

CONTENTS

	Page
1. INTRODUCTION	1
2. EXECUTIVE SUMMARY	3
3. LEGAL REQUIREMENTS FOR FIRE RISK ASSESSMENTS	9
4. BACKGROUND TO THE FIRE RISK ASSESSMENT FOR GRENFELL TOWER	13
5. COMPETENCE OF THE FIRE RISK ASSESSOR	16
6. OVERVIEW OF KEY MATTERS ARISING FROM A STUDY OF THE FIRE RISK ASSESSMENT	21
7. POSITIVE ASPECTS OF THE FIRE RISK ASSESSMENT	32
8. NEGATIVE ASPECTS OF THE FIRE RISK ASSESSMENT	35
9. CONCLUSIONS REGARDING THE FIRE RISK ASSESSMENT	38

ANNEX A	-	Audit of fire risk assessment against PAS 79
ANNEX B	-	References

1. INTRODUCTION

- 1.1 I have prepared this report on the instructions of the Metropolitan Police Service ("MPS"). The instructions were relayed to me verbally by DI D. Hillier. My instructions require that I review the fire risk assessment ("FRA") that was carried out at Grenfell Tower by Mr C.S. Stokes on 20 June 2016. By virtue of carrying out the FRA, Mr Stokes is a person on whom duties are imposed by Articles 5(3) and 5(4) of the Regulatory Reform (Fire Safety) Order 2005 ("the Fire Safety Order").
- 1.2 I am instructed that, accordingly, the objective of the review is to determine whether, in my opinion, by virtue of any failure(s) on the part of Mr Stokes, in relation to his conduct of the FRA, the documentation of the significant findings of the FRA or the recommendations contained within the FRA document ("the Action Plan"), Mr Stokes breached any duty(ies) imposed on him by the Fire Safety Order, particularly Article 9 of the Fire Safety Order.
- 1.3 I am further instructed that if, in my opinion, any duty imposed on Mr Stokes by the Fire Safety Order was breached, I am to opine whether the said breach placed one or more relevant persons at risk of death or serious injury in case of fire, contrary to Article 32 of the Fire Safety Order, so constituting an offence.
- 1.4 It has been made clear to me that, at present, MPS make no such allegation, and that I am to provide an objective and unbiased opinion on the matters that I am instructed to address. I confirm that, in preparing this report, I have complied, and will continue to comply, with this obligation. In this connection, in preparing this report, I have adopted the same objectivity and absence of bias required by Part 19 of the Criminal Procedure Rules 2015 in relation to an expert report produced for the benefit of a Court.
- 1.5 In order to assist MPS, where, in my experience, a range of opinions on any matter exists amongst fire safety specialists, I have summarized the range of opinion, while clearly giving my opinion along with the reasons for it. I have also identified any assumptions that I have made in reaching my conclusions.
- 1.6 I have based the opinions and conclusions expressed in this report on:
- An examination of the documented findings of the FRA carried out by Mr Stokes on 20 June 2016;
 - A brief inspection of Grenfell Tower, which I carried out on 28 July 2017, at which time I was accompanied by Mr D. Crowder of BRE and representatives of MPS;
 - Information subsequently provided verbally by Mr Crowder during various discussions and, in particular, at a meeting with Mr Crowder and Ms Ciara Holland of BRE on 12 January 2018. Also in attendance at that meeting were Mr M. Tucker, DI D. Hillier and Acting DI M. Denby of MPS;

- Examination of the documented findings of FRAs carried out by Mr Stokes at other blocks of flats on behalf of the RBKC TMO;
 - My experience in fire risk assessment, in conjunction with my education, training and experience in the field of fire safety.
- 1.7 The following section of this report contains a short summary of the report. In Section 3, I provide an explanation of the legal requirements in relation to fire risk assessments for blocks of flats. In Section 4, I set out my understanding of the background by which it came about that Mr Stokes carried out the FRA for Grenfell Tower.
- 1.8 In Section 5, I consider the competence of Mr Stokes to carry out the fire risk assessment. In this connection, as discussed later in this report, there is no explicit requirement under the Fire Safety Order for those carrying out fire risk assessments to be competent. However, there is a requirement for the fire risk assessment to be suitable and sufficient, which clearly depends, at least to some extent, on competence on the part of the person who carries out the FRA.
- 1.9 In Section 6, I provide an overview of certain key matters in respect of the FRA. This is followed, in Section 7, by detailed aspects of the FRA that I consider to be a positive reflection on the suitability and sufficiency of the FRA. In Section 8, I consider aspects of the FRA that reflect negatively in this respect. Finally, in Section 9, I set out my conclusions in respect of the matters that I have been instructed to address.
- 1.11 In Annex A to this report, for completeness and rigour, I set out my findings of a formal audit of the FRA in relation to compliance with the recommendations of the BSI publication PAS 79, which constitutes established guidance and a recommended methodology for carrying out FRAs. This guidance document was drafted by my consulting practice, and I was solely responsible for the authoring of the publication.
- 1.12 Annex B to this report contains a list of reference material, such as published guidance, to which I refer in this report. Where reference is first (and, with significance, subsequently) made within the report to a document in Annex B, the reference is followed by square brackets, within which the number of the document in Annex B is given.
- 1.13 The statements made, and opinions expressed, within this report are true to the best of my knowledge and belief. I reserve the right to alter my opinions and conclusions in the light of any further information of which I am currently unaware. Under such circumstances, I will inform MPS at the earliest possible opportunity.

2. EXECUTIVE SUMMARY

- 2.1 Article 9 of the Fire Safety Order requires that the “*Responsible Person*” must carry out a fire risk assessment (FRA) to ensure that there are adequate “*general fire precautions*” to protect “*relevant persons*”.
- 2.2 “*General fire precautions*” include a wide range of fire safety measures, many of which are subject to further specific requirements in other Articles of the Fire Safety Order. “*Relevant persons*” include the residents of the flats and anyone else lawfully on the premises (but not fire-fighters engaged in operational tasks).
- 2.3 The duties imposed by the Fire Safety Order are also imposed on every other person who has control of the premises. This includes anyone who, under a contract or tenancy, has an obligation of any extent in relation to maintenance or repair of the premises, including anything in or on the premises, or the safety of the premises.
- 2.4 As a result of the above, RBKC and the TMO were either the Responsible Person or another person having control of the premises. As such, there was a duty imposed on them to carry out a “*suitable and sufficient*” FRA and, more generally, to ensure that the general fire precautions were adequate.
- 2.5 The scope of the Fire Safety Order (and, hence, the FRA) includes all common parts, plant rooms, etc, but not fire precautions within the flats, which are outside the scope of the Fire Safety Order. It is universally accepted that flat entrance doors fall within the scope of the Fire Safety Order. However, there is a body of opinion that external walls and any cladding thereon fall outside the scope of the Fire Safety Order. Accordingly, in my experience, it is custom and practice is to exclude consideration of external walls and their cladding from the scope of an FRA.
- 2.6 The FRA must be reviewed “*regularly*” and if there is a reason to suspect that it is no longer valid or that there has been a significant change in relevant matters within the building. “*Regularly*” is not defined, but recognized best practice is for FRAs to be reviewed annually; this would be appropriate for Grenfell Tower. For the highest risk premises, a new, full fire risk assessment might be carried out annually.
- 2.7 It is common for the FRA to be carried out by an external specialist fire risk assessor. There is a duty, under the Fire Safety Order, for the fire risk assessor (as well as the Responsible Person) to ensure that the FRA is suitable and sufficient. Failure to do so can result in prosecution of the fire risk assessor (and/or the Responsible Person) if their failure results in the risk of death or serious injury of any relevant person in case of fire.
- 2.8 Carl Stokes carried out an FRA for Grenfell Tower on behalf of Salvus Consulting Ltd (“Salvus”) in September 2009. In 2010, Mr Stokes, who is a sole trader, was appointed in his own right to carry out FRAs for the TMO-

managed estate. He carried out FRAs for Grenfell Tower in December 2010, November 2012, October 2014 and June 2016, at which time the refurbishment was almost complete.

- 2.9 In announcing the change of fire risk assessors from Salvus to Mr Stokes' company, C.S. Stokes & Associates, it was stated by the TMO that Mr Stokes was willing to challenge London Fire Brigade on behalf of the TMO if they considered that LFB made excessive requirements under the Fire Safety Order.
- 2.10 In my opinion, there is nothing untoward about this statement. At the time in question (and, to some extent, even today), LFB officers were inspecting blocks of flats with very little training, as a result of a perceived urgent need to do so following the fire at Lakanal House in 2009. Consequently, in my experience, officers frequently made requirements that were inappropriate, sometimes to the extent that they were absurd. This was widely recognized within the fire safety profession.
- 2.11 There is no legal requirement for competence on the part of a fire risk assessor, though, if a fire risk assessor does not have a degree of competence, the FRA might not be suitable and sufficient. There are certification and registration schemes by which fire risk assessors can demonstrate their competence, but it is largely a commercial decision on the part of fire risk assessors as to whether they should seek certification or registration. Mr Stokes is not certificated or registered under any of these schemes.
- 2.12 However, Mr Stokes was previously employed as an officer in Oxfordshire Fire and Rescue Service, during which, for at least some time (which may have been as long as 19 years), his role was enforcement of fire safety legislation. This is a suitable background for a fire risk assessor, subject to sufficient experience in the enforcement role. In 2016, he claimed to have been carrying out FRAs for seven years.
- 2.13 In his FRAs, Mr Stokes includes, after his name, a plethora of post-nominals, which are likely to be interpreted by a member of the public as formal qualifications or professional body memberships. Only one of these is a legitimate professional body membership, though in relation to alternative dispute resolution, which is irrelevant to fire safety.
- 2.14 However, one post-nominal legitimately indicates successful completion of a European Diploma in fire prevention, which is a credible fire safety qualification, approximately equivalent to a Higher National Certificate (HNC). I have confirmed that he was awarded the diploma in 2006. To achieve the diploma involves a one week residential course, approximately 120 hours of home study and a three hour written examination.
- 2.15 The other post-nominals either do not exist as post-nominals or are references to organizations, British Standards or short courses undertaken; as such, they should not be used in the form of post-nominals. Even the courses in question

would not result in specific qualifications, but would simply be forms of continuing professional development, such as courses or seminars of durations ranging from one day to no more than a few days.

- 2.16 One of the post-nominals quoted is “NEBOSH”. This is a body that awards qualifications in health and safety, but the use of its name as a post-nominal is meaningless. It may be that Mr Stokes was endeavouring to convey that he holds some NEBOSH qualification, but any such qualification would be unlikely to have greatly furthered Mr Stokes’ existing knowledge in fire safety and fire risk assessment.
- 2.17 The wording of a further post-nominal would tend to imply that Mr Stokes had been registered by the Institution of Fire Engineers (IFE) as competent to carry out fire risk assessments. In fact, Mr Stokes is not, and never has been, registered by the IFE. I suspect that Mr Stokes was merely trying to indicate that he had participated in a short course on fire risk assessment, which has recognition by the IFE; I can confirm that he did participate in such a course, but it does not lead to a post-nominal.
- 2.18 In July 2017, after a telephone discussion with the IFE, Mr Stokes changed the reference to IFE on his website (correctly) to indicate that he had undertaken an IFE-recognized course. However, in my opinion, this post-nominal, and several of the others that appeared after his name on the FRA, was extremely misleading. Either Mr Stokes is somewhat ignorant about the proper use of post-nominals or he was, at least, endeavouring to overstate his qualifications.
- 2.19 Nevertheless, from my understanding of Mr Stokes’ training and experience, and from my study of the Grenfell Tower FRA, my opinion is that Mr Stokes was competent to carry out suitable and sufficient fire risk assessments for Grenfell Tower. There is evidence that Mr Stokes had a good understanding of all relevant legislation and guidance and that he keeps his knowledge up to date (e.g. in relation to lessons learned from relevant serious fires). My further opinion is that, though there are minor errors or deficiencies in the documented FRA, the 2016 FRA for Grenfell Tower was carried out competently.
- 2.20 In this connection, the detail incorporated within the FRA is extensive, to a degree that is rarely encountered in FRAs. It is clear that Mr Stokes carried out a thorough examination of all relevant areas of the building. There is also evidence of very careful checking of records held by the TMO. The scope of the FRA satisfies, and exceeds, that recommended in current guidance on fire safety in blocks of flats.
- 2.21 There are very many positive aspects of the FRA documented by Mr Stokes. There is evidence that Mr Stokes understood the importance of communicating fire safety information to residents. It is clear that he examined a sample of flat entrance doors, giving particular attention to the doors of leasehold flats, which had not been replaced with new fire-resisting doors. There is extensive consideration of housekeeping matters. It is clear that Mr

Stokes gave some detailed consideration to emergency escape lighting. He clearly spotted minor deficiencies in this and various other matters.

- 2.22 For objectivity, I would also note that, in my opinion, there were some less satisfactory aspects of the FRA. For example, there is evidence that some of the text in the FRA was simply standard wording or “cut and pasted” from other FRAs; thus, he refers to pigeon netting on balconies, which did not even exist at Grenfell Tower. There are minor contradictions in the views expressed on a small number of fire safety matters. There was a shortage of information on the smoke control arrangements.
- 2.23 In addition, in my opinion, the advice to the TMO on actions available to them if the flat entrance doors of leasehold flats were inadequate was not totally complete; equally, the advice in his FRA appears to be based on the position of LFB on this matter, as recorded in minutes of meetings between the TMO and LFB. There is also a contentious statement that the TMO did not need to give a copy of the FRA to any enforcing authority and that, if they did so, it might be used against them. Not only was this contentious, it was not strictly accurate, and I am surprised that Mr Stokes felt the need to include the statement in his FRA.
- 2.24 Nevertheless, I do not consider that, in aggregate, with the possible exception of information on the external cladding of the building (see below), any of the negative features of the FRA were such that it could be said that the FRA was not suitable and sufficient. To the extent that this could be said, any significant shortcomings appear to be based on information provided to Mr Stokes and reasonably accepted by him and/or the shortcomings did not result in the risk of death or serious injury of any relevant person.
- 2.25 I have identified only one small, but potentially significant, matter that should have been considered in the FRA, but on which the documented FRA is silent. This concerns the arrangements for routine testing of the fire-fighters’ switch for the lifts, by which LFB could cause the lifts to return to ground and, thereafter, be operated only from within the lift car. It is, therefore, uncertain, as to whether regular testing was carried out. This might be significant, in that my understanding is that the switch did not operate correctly at the time of the fire.
- 2.26 From a study of the FRA, a number of significant matters need to be brought to the attention of MPS for further investigation. In summary, these are as follows:
- Mr Stokes states that the new cladding, installed as part of refurbishment, was “*fire rated*”, clearly meaning that its performance in the event of fire would be satisfactory. While, obviously, this was incorrect, there was, strictly, no need for Mr Stokes to consider this cladding, as it was outside the scope of the Fire Safety Order. However, the fire performance of the cladding could not have been determined by visual inspection. Unless Mr Stokes was reckless in making this statement (the possibility of which needs to be eliminated), Mr Stokes must have based this comment on

information provided by others. Identification of the source of the information would clearly be relevant to the MPS investigation. However, at this stage, I cannot discount the possibility that Mr Stokes failed to appreciate that the fire performance of which he was made aware was not adequate for compliance with the requirements of the Building Regulations in relation to high-rise buildings.

- Mr Stokes states that he found certification for the replacement composite flat entrance doors. As there is now some suggestion that these doors may not have afforded 30 minutes fire-resistance, this certification needs to be investigated further.
- Mr Stokes states that the Building Control Officer had required that smoke seals be omitted from some fire doors. The veracity of this, and any reason for such a requirement, should be further investigated.
- Mr Stokes sets out various ways in which fire safety information was communicated to residents. The accuracy of this information should be confirmed (including by reference to witness statements of residents); if the information is not accurate, its source should be identified.
- Mr Stokes states that the lifts were upgraded to satisfy the standard of fire-fighting/evacuation lifts. The accuracy of this should be verified. If the information is not accurate, its source should be identified; Mr Stokes states that he saw documentation to support this.
- Mr Stokes states that LFB were satisfied with access for fire appliances. It is unclear as to whether this was only during the construction work or in the long term. This needs further investigation.

2.27 It is also noteworthy, that according to the FRA, LFB carried out an audit at Grenfell Tower under the Fire Safety Order in 2014. A non-statutory notice was issued, indicating only very minor deficiencies. Only two of the requirements in the notice would have any relevance at the time of the fire, namely requirements for maintenance schedules to be put in place for the smoke control system and the emergency escape lighting.

2.28 My instructions require that I give an opinion as to whether, in relation to his FRA of June 2016, Mr Stokes breached any duty imposed on him by the Fire Safety Order. In my opinion, I have not been presented with any evidence of any such failure. In my opinion, Mr Stokes was thorough to an extent that could be described as meticulous. He did overlook the need for regular testing of the fire-fighters' switch for the lifts, but this is quite minor, particularly in relation to the many relevant issues that were properly considered.

2.29 I am also instructed to opine as to whether any breach of the Fire Safety Order by Mr Stokes placed one or more relevant persons at risk of death or serious injury in case of fire. My opinion is that, to the extent that it might be argued that the FRA was not suitable and sufficient, such shortcomings did not place any relevant person at risk of death or serious injury in case of fire.

2.30 However, with hindsight and the knowledge we now have of the fire performance of the external cladding installed at Grenfell Tower, it is absolutely

clear that it was incorrect to state in the FRA that the cladding was "fire rated". While it was not incumbent on Mr Stokes to make any comment on the cladding, if the statement was made unilaterally by Mr Stokes without any proper basis, RBKC and the TMO were, in my opinion, entitled to rely on the information. Accordingly, this matter needs to be investigated when Mr Stokes is interviewed to eliminate the (remote) possibility that the statement was made recklessly with no foundation. If (as is much more likely) the statement was made on the basis of information provided by others, or documentation provided to Mr Stokes, the source of the information (and interpretation of the information by Mr Stokes and others) will clearly be of value to MPS in their investigation of the fire and subsequent deaths.

3. LEGAL REQUIREMENTS FOR FIRE RISK ASSESSMENTS

- 3.1 Article 9(1) of the Fire Safety Order requires that the “*Responsible Person*” must make a suitable and sufficient assessment of the risks to which “*relevant persons*” are exposed for the purpose of identifying the “*general fire precautions*” he needs to take to comply with the requirements and prohibitions imposed on him by or under the Order. This assessment is universally described as a “fire risk assessment”.
- 3.2 If the premises comprise a workplace, the “*Responsible Person*” is the employer if the workplace is to any extent under his control. If the premises are not a workplace, the “*Responsible Person*” is the person who has control of the premises in connection with the carrying on by him of a trade, business or other undertaking (for profit or not). Arguably, Grenfell Tower was a workplace by virtue of the employment of a caretaker.
- 3.3 By virtue of Article 5(3) of the Fire Safety Order, the duty imposed by, *inter alia*, Article 9 is also imposed on every person, other than the Responsible Person, who has, to any extent, control of the premises so far as the requirements relate to matters within his control. By virtue of Article 5(4), this other person on whom the Fire Safety Order imposes duties includes anyone who, by virtue of any contract or tenancy, has an obligation of any extent in relation to maintenance or repair of the premises, including anything in or on the premises, or the safety of the premises.
- 3.4 It may transpire to be a moot point as to whether the Responsible Person was RBKC or the TMO, either as the employer (if Grenfell Tower were deemed to be a workplace) or the person having control of the premises; alternatively, either of these parties might be another person having control of the premises, as defined in Article 5(4). For the purpose of this report, it is not necessary to further explore the identity of the Responsible Person or the Article 5(3) person.
- 3.5 By virtue of Article 2 of the Fire Safety Order, “*relevant persons*” comprise any person who is or may be lawfully on the premises and any person in the immediate vicinity of the premises who is at risk from a fire on the premises. (However, “*relevant persons*” do not include fire-fighters carrying out fire-fighting activities.)
- 3.6 The premises in question comprise the common parts, plant rooms etc, but not the flats, which, as domestic premises, are outside the scope of the Fire Safety Order. However, the residents within the flats were “*relevant persons*”, as they were in the immediate vicinity of the common parts and were at risk from a fire in the common parts.
- 3.7 There is a body of opinion, including that given to London Fire Brigade, that the external walls of a block of flats are outside the scope of the Fire Safety Order, as, in the case of a purpose-built block of flats, the Fire Safety Order applies only to parts of the premises which are used in common by the

occupants of more than one flat. It is argued that it is not reasonable to regard the external walls as “used” by the occupants of more than one flat (though I could postulate counter-arguments). Accordingly, while only a Court can, ultimately, determine the interpretation of legislation, there is a general opinion that external wall build up, including cladding, cavity barriers, etc falls outside the scope of the Fire Safety Order and, therefore, does not, strictly, need to be considered in a fire risk assessment. Certainly, in my experience, external wall construction would not normally be considered by fire risk assessors as a matter of custom and practice.

3.8 By virtue of Article 4 of the Fire Safety Order, “*general fire precautions*” comprise:

- (a) measures to reduce the risk of fire on the premises and the risk of the spread of fire on the premises;
- (b) measures in relation to the means of escape from the premises;
- (c) measures for securing that, at all material times, the means of escape can be safely and effectively used;
- (d) measures in relation to the means for fighting fires on the premises;
- (e) measures in relation to the means for detecting fire on the premises and giving warning in case of fire on the premises; and
- (f) measures in relation to the arrangements for action to be taken in the event of fire on the premises, including:-
 - (i) measures relating to the instruction and training of employees; and
 - (ii) measures to mitigate the effects of the fire.

3.9 Accordingly, for a fire risk assessment to be suitable and sufficient, and thereby compliant with Article 9(1) of the Fire Safety Order, it is necessary for the fire risk assessment to give consideration to each of the matters set out in paragraph 3.8 above. To further assist MPS in interpretation of the term “*general fire precautions*”, in practice, in my opinion, the measures in question may be described in more common parlance as follows:

- measures to prevent the outbreak of fire;
- compartmentation, fire stopping (e.g. of service penetrations in fire-resisting walls and floors), fire doors, etc;
- suitably protected escape routes and fire exits;
- emergency escape lighting, fire exit signage and smoke control;
- fire extinguishers;
- fire detection and fire alarm systems;
- appropriately disseminated fire procedures;
- instruction and training of employees in fire safety;
- arrangements for management of fire safety.

- 3.10 More generally, duties in relation to fire safety are imposed on the Responsible Person (and any other person having control of the premises) by Articles 8-22 of the Fire Safety Order inclusive. Many of these articles impose more specific requirements in relation to the general fire precautions. For example, Article 14 makes requirements in relation to escape routes, fire exits, emergency escape lighting and escape route signs.
- 3.11 While fire risk assessments must give consideration to all of the matters described in the above paragraphs, it is not necessarily the case that each of the measures described were required at Grenfell Tower. Under the Fire Safety Order, physical fire precautions need only be provided “*where necessary*”. The obvious general fire precautions that would not be necessary at Grenfell Tower, as a purpose-built block of flats, are a communal fire alarm system and fire extinguishers within the common parts.
- 3.12 Article 9(3) of the Fire Safety Order requires that the fire risk assessment must be reviewed by the Responsible Person “*regularly*” so as to keep it up to date and particularly if:
- (a) there is a reason to suspect that it is no longer valid; or
 - (b) there has been a significant change in the matters to which it relates, including when the premises special, technical and organisational measures, or organisation of the work undergo significant changes, extensions, or conversions.
- Where changes to a fire risk assessment are required as a result of any such review, the Responsible Person must make them.
- 3.13 The term “*regularly*” is not defined in the Fire Safety Order. It is commonly considered that best practice is for fire risk assessments for most buildings to be reviewed annually. In the case of a high-rise block of flats, such as Grenfell Tower, this would be consistent with published guidance on fire safety in purpose-built blocks of flats [B1].
- 3.14 It should be noted that review of a fire risk assessment is not synonymous with carrying out a new fire risk assessment. It is quite common for a full and detailed fire risk assessment to be carried out, after which there are then annual reviews on one or more occasions before the next full and detailed fire risk assessment. For the highest risk premises, new, full fire risk assessments might be carried out annually.
- 3.15 There are various reasons to suspect that a fire risk assessment may no longer be valid, e.g. when a material alteration takes place, a change occurs in factors that were taken into account in the original fire risk assessment or a change in fire precautions occurs.
- 3.16 If the review of a fire risk assessment has arisen simply from the passage of time, all aspects of the original fire risk assessment might need to be revisited to ensure that they have not been subject to change. If there has been little

or no change, a short review document might be completed. If the review has arisen purely as a result of a specific material alteration, it might be the case that an even more limited review and documentation of findings is sufficient.

- 3.17 Clearly, after the last refurbishment at Grenfell Tower, the fire risk assessment should have been, at least, reviewed or, preferably, a complete new fire risk assessment should have been carried out.

4. BACKGROUND TO THE FIRE RISK ASSESSMENT FOR GRENFELL TOWER

- 4.1 While the responsibility for an FRA lies with the Responsible Person, it is common for the Responsible Person to engage the services of a consultant to carry out FRAs on their behalf. This has led to a business sector that offers the services of carrying out FRAs. Under these circumstances, the Responsible Person still bears responsibility for the adequacy of the FRA. However, the fire risk assessor is also responsible for the adequacy of the FRA and is, for the purpose of Article 5(3) of the Fire Safety Order, another person having control of the premises.
- 4.2 There have been successful prosecutions of Responsible Persons on the basis of a breach of Article 9 of the Fire Safety Order (in that the FRA for their premises was not suitable and sufficient). There have also been cases where the fire risk assessor was successfully prosecuted, either along with the Responsible Person or in isolation.
- 4.3 My understanding is that Salvus Consulting Ltd ("Salvus") tendered for the TMO fire risk assessment contract in 2009, having previously worked for RBKC, and were successful. I further understand from MPS that, under the contract, Carl Stokes carried out the first FRA, on behalf of Salvus, in September 2009. It is possible that Mr Stokes simply acted as a sub-contractor for Salvus, who, according to their website, offer consultancy and training services in relation to health and safety and fire safety.
- 4.4 In 2010, Salvus again tendered for the TMO fire risk assessment contract, but were not successful. Instead, Carl Stokes was appointed in the name of his own company, C.S. Stokes & Associates. Mr Stokes is, apparently, a sole trader, as he appears to be the director, sole shareholder and only consultant of C.S. Stokes & Associates. This is not an uncommon situation amongst professional fire risk assessors.
- 4.5 In the minutes of a meeting of the TMO Operations Committee, on 25 November 2010, Janice Wray, who was employed as the health and safety advisor for the TMO, advised the Operations Committee of the appointment of C.S. Stokes & Associates. As has been noted in the Press following the Grenfell Tower fire, Ms Wray advised the Operations Committee that Mr Stokes was willing to challenge London Fire Brigade on behalf of the TMO if they considered that LFB made any requirements under the Fire Safety Order that were excessive and beyond what could reasonably be required. Given the negative Press in relation to this statement, it might assist MPS if I comment on it.
- 4.6 Prior to the Fire Safety Order coming into force on 1 October 2006, fire and rescue services, such as London Fire Brigade, were not involved (certainly to any material extent) in enforcement of fire safety provisions in purpose-built blocks of flats. It is a moot point as to whether the common parts of purpose-

built blocks of flats came within the scope of previous fire safety legislation. To the extent that they did so, this would only have arisen if the common parts were regarded as a “workplace”, and any fire safety requirements would only have related to protection of employees in that workplace, as opposed to residents within their flats.

- 4.7 The inclusion of the common parts of blocks of flats within the scope of the Fire Safety Order did not arise as a result of Government concern in relation to fire safety in blocks of flats, but, simply, because of European Directives on health and safety in workplaces, which required that fire safety legislation in the UK should apply to all workplaces. Government lawyers in England and Wales took the view that Europe might regard the common parts of blocks of flats as a workplace. (Government lawyers in Scotland took a different view, so blocks of flats are outside the scope of equivalent legislation in Scotland.)
- 4.8 In view of the above, initially, fire and rescue authorities carried out very little inspection or enforcement of the Fire Safety Order in blocks of flats, quite reasonably concentrating more on high-risk premises, such as hotels, houses in multiple occupation, etc, in which the application of the Fire Safety Order had potential to control deaths and injuries from fire; in blocks of flats, the vast majority of fire deaths occur in the flats in which fire occurs, which are outside the scope of the Fire Safety Order, rather than in neighbours’ flats or the common parts.
- 4.9 This policy changed dramatically following the fire at Lakanal House in London in 2009, in which six people died in flats other than that in which the fire occurred. Fire and rescue services throughout England, including London Fire Brigade, almost immediately began an intensive programme of inspections of blocks of flats. This was deemed to be so urgent that little time or effort was given to training of inspecting officers, none of whom would have substantial (or any) experience of inspecting blocks of flats, as to what fire precautions they should expect or require.
- 4.10 As a result, it was not uncommon for inspecting officers, including those of LFB, to make requirements and issue enforcement notices in relation to measures that were unnecessary, inappropriate and sometimes quite absurd. This included requirements retrospectively to install fire detection systems in common parts of modern blocks of flats with a “stay put” strategy, fire extinguishers in common parts, which is widely recognized as detrimental to the safety of residents, and directional ‘FIRE EXIT’ signs on the landings of single staircase buildings, in which the downward direction of escape is patently obvious.
- 4.11 These issues would have been prevalent in 2010, when Carl Stokes was appointed by the TMO. It has been stated by a representative of the Fire Brigades Union that, as a result of inadequate training of fire safety inspecting officers in the fire and rescue service, it is not uncommon for private sector consultants to have greater competence in fire safety legislation than those enforcing the legislation in the fire and rescue service.

- 4.12 Indeed, this issue is not unknown even today. During the period over which I have drafted this report, I advised a managing agent to challenge the requirements of an inspecting officer to upgrade or replace all flat entrance doors in three blocks of flats, when, in fact, relevant recognized guidance is that this work is not necessary. On challenge, the line manager of the officer claimed that the requirements were a clerical error that should not have been included in the communication to the managing agent (even though the officer had been adamant in discussion with the managing agent that the work was required). This challenge potentially avoided unnecessary expenditure, amounting to several thousand pounds.
- 4.13 Mr Stokes carried out the first FRA on behalf of his own company in December 2010. For some reason, he recommended that the FRA should be reviewed in February 2011. Mr Stokes carried out new FRAs in November 2012 and October 2014. He recommended that the 2012 FRA be reviewed in January 2014. In the October 2014 FRA, he recommended that the FRA be reviewed when the then current building work/project was completed. This would suggest that FRAs were being carried out approximately every two years, which, subject to annual reviews being carried out, is reasonable.
- 4.14 Mr Stokes next carried out an FRA on 20 June 2016. This was the current FRA at the time of the fire. That FRA suggested that the FRA should be reviewed in July 2017 and that a new FRA should be carried out in July 2019. It omitted to state what action (if any) should be taken in 2018, but, presumably, the intention was that there should be a review in that year, in which case the recommendation for a new FRA in 2019 was, in my opinion, not unreasonable.
- 4.15 It is possible that the 2016 FRA was carried out in June, rather than towards the end of the year, as was the case for the previous FRAs, because the refurbishment work was substantially completed. This would be appropriate. Indeed, arguably, the FRA was carried out a little earlier than it might have been, given that the FRA records that some areas of the building were still occupied by contractors.

5. COMPETENCE OF THE FIRE RISK ASSESSOR

- 5.1 As discussed in Section 1 of this report, there is no specific legal requirement for competence on the part of a fire risk assessor. For those who wish reassurance that those carrying out FRAs for their premises are competent, three professional bodies (the Institution of Fire Engineers, the Institute of Fire Prevention Officers and the Institute of Fire Safety Managers) all operate registration schemes, under which an individual can be registered as competent to carry out FRAs. In addition, a third party certification body (Warrington Certification) operates a certification scheme, under which, similarly, fire risk assessors can be certificated as competent.
- 5.2 There are also third party certification schemes, under which companies can be certificated for the purpose of providing FRAs. In this case, it is the company that is certificated, rather than individual fire risk assessors. However, in the case of “company” certification, the certification body must be satisfied regarding the competence of the individual fire risk assessors, but, additionally, the company, itself, must operate a suitable quality management system that is deemed by the certification body to be adequate to ensure the quality of the delivered FRAs.
- 5.3 Although there have been calls by many bodies for mandatory certification or registration of fire risk assessors or fire risk assessment companies, Government has always strongly resisted any proposal that this should be a legal requirement. Basically, anyone can offer their services to carry out FRAs, regardless of whether they have the necessary education, training or experience to do so. Equally, there is no unique path to the achievement of competence. Those carrying out FRAs on a commercial basis come from diverse professional backgrounds, not all of which are appropriate.
- 5.4 In his 2016 FRA, Mr Stokes stated that he had been an independent fire risk assessor for seven years. He also stated that he had 19 years’ fire safety experience with a local fire authority in enforcement and auditing roles. I am aware that Mr Stokes was a fire officer in Oxfordshire Fire and Rescue Service and that, for at least a certain period of time, his role was enforcement of fire safety legislation. Subject to sufficient experience in that role, this is a common and particularly suitable background for a fire risk assessor.
- 5.5 However, I am unclear as to whether Mr Stokes spent 19 years in total in the fire and rescue service, including periods in which his role was operational fire-fighting, rather than fire safety, or whether the period of 19 years refers specifically to the aggregate amount of time (perhaps in several tranches) for which he was engaged in enforcement of fire safety legislation. Experience in operational fire-fighting does not bring about competence in fire risk assessment. However, experience in enforcement of fire safety legislation undoubtedly does so.
- 5.6 Typically, fire service personnel spend around 30 years in the service before retiring. Accordingly, the 19 years to which Mr Stokes refers may well reflect

the period in which he was engaged in fire safety, as opposed to operational fire-fighting. If this should be the case, his level of experience in fire safety would be quite unusual and should be more than sufficient to make him competent in carrying out FRAs. Indeed, experience of less than half the period of 19 years would normally be regarded as sufficient background for a competent fire risk assessor.

- 5.7 In his FRAs, Mr Stokes includes, after his name, what can only be interpreted as a plethora of post-nominals, which, in my opinion, would be likely to be interpreted by a member of the public as formal qualifications or professional body memberships. I reproduce the format in which these are set out below:

Mr C. Stokes, ACI Arb, FPA Dip FP (Europe), Fire Eng (FPA), NEBOSH, FIA BS 5839 Part 1 System Designer, BS 5839 Part 6, Competent Engineer BS 5266, IFE Assessor/Auditor (FSO).

- 5.8 I set out below my interpretation and understanding of each of these apparent post-nominals:

- ACI Arb are recognized post-nominal letters, which Associates of the Chartered Institute of Arbitrators (CI Arb) are entitled to use. Associate is an entry level to the CI Arb and indicates some knowledge of Alternative Dispute Resolution achieved through one of the CI Arb's introductory courses or an equivalent course or adequate level of experience. While this basic level of knowledge in the field of arbitration has no bearing on fire safety, the CI Arb membership list does include a C. Stokes, so it would seem very likely that Mr Stokes is entitled to use these post-nominals.
- FPA Dip FP (Europe). By use of these post-nominals, Mr Stokes is undoubtedly indicating that he successfully completed the Confederation of Fire Protection Associations Europe (CFPA) Diploma in Fire Prevention (though he has used the incorrect post-nominals, which should be CFPA(EU) Dip). The CFPA is an association of 18 national fire protection organizations in Europe; the UK member organization is the Fire Protection Association (FPA). I have confirmed with the FPA that Mr Stokes was awarded the Diploma in 2006, when, clearly, he was still employed in Oxfordshire Fire and Rescue Service, so he probably undertook much of the study in his own time.

The European Diploma is a credible qualification, which, in the UK, can only be provided by the FPA. The qualification is a Level 4 Diploma, meaning that it is equivalent to a Higher National Certificate (HNC). The qualification normally takes around 6-24 months of mainly home-based, part-time study to achieve. Students attend a one week residential course on fire risk assessment, after which they undertake distance learning in eight topics, each requiring approximately 15 hours of study. Thereafter, the course is completed by undertaking a three hour written examination.

- Fire Eng (FPA). These post-nominals do not exist. I can only assume that, by use of them, Mr Stokes is endeavouring to indicate that he undertook some training in fire engineering delivered by the FPA. The FPA do not currently offer any training in fire engineering in their training

prospectus, but it could be the case that Mr Stokes attended either some form of short course on fire engineering delivered by the FPA to officers of Oxfordshire Fire and Rescue Service when Mr Stokes was employed by them, or attended a public FPA course at a time when the FPA did, for a while, offer short (several day) courses in fire engineering. However, in my opinion, to use these post-nominals is misleading.

- NEBOSH is the National Examination Board in Occupational Safety and Health. It is an organization, not a qualification. NEBOSH offer a number of qualifications at “certificate” level and “diploma” level, the most common of which are the NEBOSH General Certificate in Occupational Health and Safety, which is intended simply for managers and supervisors who have some responsibility for health and safety as part of their other responsibilities, and the NEBOSH Diploma in Occupational Health and Safety, which is intended for professional health and safety practitioners.

NEBOSH also offer a national certificate in fire safety and risk management, training for which can be provided by over 100 training organizations in the UK and overseas. The qualification involves around 70 hours of teaching and 55 hours of private study. It is intended for managers and supervisory staff who, for example, might have some responsibility for fire safety within their organization. NEBOSH claim only that it would equip certificate holders to carry out fire risk assessments for low-risk workplaces.

It will be obvious to MPS that, from the above, a mere reference to NEBOSH is quite meaningless.

- FIA BS 5839 Part 1 System Designer. The FIA is the abbreviation for the Fire Industry Association, which is a trade association (of which I am a Board member). The FIA offer various courses on fire alarm systems, typically of one or, at most, two days. The training does include course tests. It may be the case that Mr Stokes undertook the one day course on basic design of fire alarm systems, but this would not entitle him to the use of any post-nominals. Again, I regard this reference as quite misleading.
- BS 5839 Part 6. BS 5839-6 is simply a British Standard for the design, installation, commissioning and maintenance of fire alarm systems in domestic premises. Its use in this way as a post-nominal is totally meaningless. Mr Stokes is probably endeavouring to convey the fact that he undertook some training or continuing professional development in the Standard, but possibly of no more than one day’s duration. To use a British Standard number as a form of post-nominal is, in my opinion, highly misleading.
- Competent Engineer BS 5266 is, in my opinion, likely to constitute another highly misleading claim on the part of Mr Stokes. BS 5266 is actually a suite of British Standards, each with a different part number, dealing with the subject of emergency lighting. My “best guess” is that Mr Stokes attended a one day course, offered by the Industry Committee for Emergency Lighting (ICEL) (which is part of the Lighting Industry Association) and also offered by the FIA. In fairness to Mr Stokes, I should point out that ICEL do refer to the course as “competent engineer training”,

and it qualifies for a 6.5 hours CPD certificate; there are also short tests during the day. The FIA more accurately refer to the same course as a foundation and design course. This is a very basic course that is intended to give a brief overview of BS 5266 Parts 1, 7, 8, and 10. It could not possibly turn a fire officer into a competent emergency lighting engineer, and the certificate does not entitle holders to use any post-nominals.

- IFE Assessor/Auditor (FSO). This is probably the most misleading of all the post-nominals. As Chairman of the Institution of Fire Engineers (IFE) Panel that is responsible for registration of fire risk assessors as competent to carry out FRAs, the manner in which the post-nominals are set out would imply to me that Mr Stokes was registered as a fire risk assessor by the IFE, albeit that registration does not entitle registrants to use post-nominals in this way. Several other colleagues in the fire safety profession have actually brought to my attention, in my role as Chairman, that, from these post-nominals on his fire risk assessments and elsewhere, the fire risk assessor for Grenfell Tower is registered by the IFE.

In fact, having investigated this matter, I can confirm that Mr Stokes is not on the IFE Register, never has been on the Register and, as far as IFE records can ascertain, has never applied to the IFE for registration.

My assumption is that Mr Stokes is referring to his attendance on a fire risk assessment course that is formally recognized by the IFE. There are several such courses, one of which is run by my consulting practice. In this connection, I have ascertained that, while employed by Oxfordshire Fire and Rescue Service, in 2007, Mr Stokes did attend a 3.5-day in-house course, which my practice ran for the Service, and that he successfully passed the course examination. Equally, as he undertook training by the FPA for the purpose of the CFPA Europe Diploma, he would have participated in the one-week FPA fire risk assessment course, which is also recognized by the IFE.

I have examined the website of Mr Stokes' company as far back as May 2013 (using the internet "wayback machine"). Between then and July 2017, Mr Stokes described his qualifications as set out above (though as a list, rather than post-nominals). In July 2017, after a telephone discussion with the IFE, Mr Stokes changed the reference to IFE (correctly) to read "*Fire risk assessment training course-recognised by the IFE*".

- 5.9 While Mr Stokes and his company do not appear to have been registered or certificated by any professional or certification body as competent to deliver FRAs, as discussed above, there is no legal requirement for him to be registered or certificated as a pre-requisite for carrying out FRAs. It is simply a commercial decision for Mr Stokes as to whether he would wish to establish his competence in this way, and for his clients to determine whether they would wish reassurance of this nature.
- 5.10 Certainly, it cannot be said that absence of registration or certification in any way reflects lack of competence. On the contrary, the level of training and

experience of Mr Stokes would suggest that he should have competence in fire risk assessment.

- 5.11 However, it is clear that either Mr Stokes is somewhat ignorant about the proper use of post-nominals or that he was, at least, endeavouring to overstate his qualifications; in either case, the manner in which he set out the supposed post-nominals would, in my opinion, significantly mislead clients and potential clients as to his qualifications, regardless of his level of competence.

6. OVERVIEW OF KEY MATTERS ARISING FROM A STUDY OF THE FIRE RISK ASSESSMENT

- 6.1 On reading the documented FRA carried out by Mr Stokes in June 2016, a number of significant issues tend to stand out. I consider these matters in this section of my report. Thereafter, in the two sections that follow, I set out much more detailed comments that reflect positively and negatively on the FRA respectively. Accordingly, some of the matters discussed in this section of my report are repeated in either Section 7 or Section 8 of the report.

The Competence of Mr Stokes

- 6.2 This follows on from the previous section of my report. In determining the competence of a fire risk assessor (e.g. for the purpose of registration of the assessor as competent by the IFE), there are two major areas to consider; firstly, the education, training and experience of the fire risk assessor in the principles of fire safety in general and the principles of fire risk assessment in particular. I considered those matters in the previous section of my report.
- 6.3 The second area that contributes towards demonstration of competence is the documented FRA. In this connection, I have experience in examining some thousands of FRAs carried out by others, partly in my role in the quality assurance process of my own consulting practice, but partly also in my role of assessing competence of fire risk assessors by, *inter alia*, study of samples of their FRAs for the purpose of registration of fire risk assessors as competent by the IFE.
- 6.4 In my experience, the documented findings of an FRA provide significant evidence as to the competence (or lack of competence) of the fire risk assessor. The usefulness of the documented FRA is, to some extent, related to the extent of detail included in the FRA. In this connection, the 2016 FRA for Grenfell Tower (and similar FRAs carried out by Mr Stokes for other buildings managed by the TMO) is amongst the most detailed I have studied. Aside from the fact that this reflects positively on the efforts of Mr Stokes in documenting the FRA, it facilitates considerable reliability in the assessment of Mr Stokes' competence.
- 6.5 From a study of the FRA, there are many "tell-tale" indications that Mr Stokes is competent to carry out a suitable and sufficient FRA in general, and that, more specifically, the FRA for Grenfell Tower was carried out competently, notwithstanding certain minor errors or deficiencies described in Section 8 of my report. Indeed, were Mr Stokes to apply for registration by the IFE, I would have no hesitation, on the basis of his training and experience (assuming that his claims in this respect are accurate) and the FRA for Grenfell Tower, in recommending him for registration, subject only to formal interview, which is a normal part of the registration process.

6.6 By way of example, from my reading of the FRA:

- There is evidence that Mr Stokes was quite meticulous in the detail he recorded, though I have slight concerns that some of the content was standard wording, which he incorporated in all his FRAs, as something of a “cut and paste”; for example, for some reason, the FRA contains a section on pest control, in which it is recorded that pigeon netting had been erected to cover the flat balconies, which Mr Stokes states were inspected visually from the ground, when in fact, there are no flat balconies.
- There is evidence that Mr Stokes has a good knowledge and understanding of not only the Fire Safety Order, but the extent to which other legislation is relevant to fire safety at Grenfell Tower (e.g. the Housing Act 2004). A minor error in this respect is that Mr Stokes recorded that the Responsible Person was the Chief Executive of RBKC, when, in fact, as discussed in Section 3 of my report, the RP was a body corporate, rather than an individual person. However, in my experience, this is a common error.
- It is clear that Mr Stokes is aware of, and gave attention to, every relevant Article of the Fire Safety Order.
- It is clear that Mr Stokes carried out a thorough examination of all areas of the building, including plant rooms and the roof.
- The FRA contains a good description of the building, its layout and construction.
- There is clear evidence that Mr Stokes was familiar with PAS 79 [B2], which provides recognized guidance on carrying out and documenting an FRA, and the appropriate Local Government Association guidance [B1] on fire safety in purpose-built blocks of flats.
- There is evidence that Mr Stokes keeps up to date with legislation, standards and lessons learned from high profile fires. As well as reference to the fire at Lakanal House and a fire at Shirley Towers in Hampshire (in which two fire-fighters died), there is reference to a little known fire at Prestatyn, involving the murder of five residents of a small property by arson, and involving the imprisonment of the landlord for an offence under the Fire Safety Order.
- There is evidence of very careful checking of records (e.g. of maintenance, etc). Mr Stokes refers extensively to records and certificates held at the TMO “Hub” in Kensal Road. My impression is that he checked these records personally.

Scope of Fire Risk Assessment

6.7 The scope of the FRA was that of a Type 1 FRA, as defined in the Local Government Association guidance. This is the default type of FRA for compliance with the Fire Safety Order. It involves an assessment of fire safety within the common parts, plant rooms, etc, but also includes some examination (normally by sampling) of flat entrance doors and service risers.

- 6.8 In a Type 1 FRA, there is no need to consider fire precautions within individual flats (other than in relation to their effect on the common parts), as this is a matter for a Type 3 FRA, the scope of which includes the flats as well as the common parts. However, there is evidence that, as Mr Stokes notes in his FRA, Mr Stokes did consider, to some extent, fire precautions within the flats, over and above the need to do so for a Type 1 FRA, so extending the scope to elements of a Type 3 FRA.

Legal Statement within the Fire Risk Assessment

- 6.9 Within the FRA, there is a section headed "Legal Statement", in which Mr Stokes correctly noted that the fire and rescue authority "police" compliance with the Fire Safety Order. Mr Stokes goes on to correctly state that the fire and rescue service have the power to undertake an audit of the FRA to determine if it is suitable and sufficient or not. He points out that other agencies can ask if an FRA had been completed, but it is not for them to "view, enforce or make judgement on" the FRA.
- 6.10 Thereafter, within this section of his FRA, Mr Stokes advises the recipient of the FRA that they do not have to give a copy of their FRA to anybody, not even the fire authority. He also advises that, if a copy is given to "them" (presumably referring to the fire authority), this could be "*used against you at a later date*".
- 6.11 I find the incorporation of the above statement very surprising. Not only is it unnecessary and likely to be regarded as confrontational by inspecting officers of London Fire Brigade when they study the FRA at the time of any audit, the statement is, in my opinion, incorrect as a matter of law. Any audit of premises by a fire and rescue authority under the Fire Safety Order actually begins with a study of the FRA. As he is a previous inspecting officer of a fire and rescue service, I find it difficult to believe that this is not known to Mr Stokes.
- 6.12 Even if the suggestion is that London Fire Brigade could not demand that they be given a copy of the FRA, this would not be correct. For example, under Article 27(1)(c) of the Fire Safety Order, an inspecting officer has the power, at any reasonable time, to require the production of any records which are required to be kept for compliance with the Order or which it is necessary for the inspecting officer to see for the purposes of an examination or inspection under Article 27.
- 6.13 The inspecting officer is also empowered to take copies of such records. Thus, for example, in the case of prosecution of a Responsible Person for a failure to ensure that their FRA is suitable and sufficient, it would be normal practice for the fire and rescue authority to require that a copy of the FRA be provided to them.
- 6.14 Moreover, Mr Stokes, to some degree, contradicts himself, in that, within the same section of his FRA, he notes that, under certain circumstances (which would apply in the case of Grenfell Tower), a record of any significant findings from the FRA must be kept available to be inspected. It may be the case that Mr Stokes was endeavouring to make some rather pedantic distinction

between the detailed FRA and a much more abbreviated record of the significant findings, the latter of which is, under Article 9(6) and 9(7) of the Fire Safety Order, the only information that must be recorded. In this connection, for each of Mr Stokes' FRAs, he created two documents, namely the quite lengthy and detailed FRA and a separately documented table of significant findings.

- 6.15 If that is the point that Mr Stokes is endeavouring to make, I would regard it as somewhat puerile and pedantic. Moreover, the table of significant findings would not be sufficient to satisfy the Fire Safety Order without reference to the full FRA. The significant findings table only includes actions that need to be taken, whereas, by definition in the Fire Safety Order, significant findings include actions that have been taken, which, in the case of Grenfell Tower, can only be found in the full FRA.
- 6.16 In view of the situation outlined above, MPS may wish to raise this matter with Mr Stokes at the time of his interview.

External Cladding

- 6.17 MPS are aware that the fire behaviour of the external cladding at Grenfell Tower is clearly central to the spread of fire and, ultimately, the deaths that occurred. I raise the matter of the external cladding in this report because it is raised in Mr Stokes' FRA, even though, as discussed in Section 3 of my report, there is a body of opinion that external cladding is outside the scope of the Fire Safety Order and, hence, outside the scope of an FRA carried out under the Order.
- 6.18 It would appear to me that the comments on the cladding in Mr Stokes' FRA are highly significant to the MPS investigation. Accordingly, I reproduce these comments in full below:

*"New external cladding has been fitted to this building as part of the project of refurbishment/construction work being undertaken on and within this building. The original external face of this building has been over clad, the new **fire rated** (my emboldening and underlining) cladding is fixed to the out (sic) face of the building by metal fixings and the whole process has been overseen by the RBKC Building Control Department and Officers. They have approved and accepted the fixing system and cladding used."*

- 6.19 It is, presumably, as a result of the above assertion that the FRA also records that there are no apparent unusual elements of building construction that were considered to add a significant additional contribution to the fire risk.
- 6.20 It is interesting that Mr Stokes chose to make reference to the cladding. I asserted, earlier in this section of my report, that Mr Stokes was clearly familiar with the appropriate Local Government Association guidance on fire safety in purpose-built blocks of flats. That guidance does refer to the potential fire hazards of overcladding. Accordingly, it may be the case that Mr Stokes drew attention to the cladding as a result of this guidance.

- 6.21 More significant is the information that the cladding was “*fire rated*”. The term “*fire rated*” has no recognized, proper definition (other than in American English). The term is often used loosely to refer to elements of construction, such as a wall, or a door that have fire resistance (i.e. an ability to prevent the passage of flame from one side of the element to the other); it may also be used to refer to the propensity of a material to permit fire spread over its surface. Clearly, Mr Stokes is not referring to fire resistance, but would appear to be conveying the information that the cladding would have adequate performance if exposed to fire, which is clearly incorrect.
- 6.22 However, it is not possible for a fire risk assessor to determine the fire performance of external cladding by simple visual inspection. Indeed, as MPS are probably aware, following the Grenfell Tower fire, it was necessary for owners of buildings clad in aluminium composite material (ACM), which was the cladding material used at Grenfell Tower, to cut samples of the cladding, so that it could be tested at BRE to determine its composition and, hence, fire performance.
- 6.23 Accordingly, it seems very likely to me that the information recorded by Mr Stokes could only be that given to him, possibly by the TMO or (less likely) by the contractors who carried out the refurbishment work. Equally, it is possible that Mr Stokes incorrectly believed that the information on fire performance of the cladding indicated its suitability for use in a high-rise building. For example, if, say, there was information that the cladding had been certificated as “Class 0”, this could be regarded as a “fire rating” but would not, of itself, make the cladding suitable for compliance with guidance on the Building Regulations in relation to buildings over 18m in height.
- 6.24 The reference to approval by a building control body is also of interest. It is possible that this is purely an assumption on the part of Mr Stokes, in that the entire refurbishment project was subject to approval by the building control body under the Building Regulations. However, MPS may wish to investigate whether more specific information in relation to the cladding and its approval was given to Mr Stokes. In this connection, there is evidence in the FRA that Mr Stokes was quite meticulous in checking documentation and records. Accordingly, it would be of value to know whether he had sight of any documentation on the subject of the cladding.
- 6.25 MPS might consider that investigation of this matter with Mr Stokes has the potential to throw light on the circumstances that gave rise to the use of external cladding that clearly failed to satisfy the requirements of the Building Regulations.

Residents’ Flat Entrance Doors

- 6.26 Mr Stokes noted that, with the exception of 14 entrance doors to flats that he specifically listed, all flat entrance doors were certificated as providing 30 minutes’ fire resistance. With regard to the reference to the certification of the doors, Mr Stokes stated that he found evidence at the TMO “Hub” at Kensal Road that the doors were third party certificated.

- 6.27 I am aware that, in a fire resistance test carried out by BRE in February 2018, an undamaged flat entrance door removed from Grenfell Tower achieved only around 15 minutes' fire resistance. I am not, at the time of writing this report, aware as to the reason for the failure of the door to achieve 30 minutes' fire resistance.
- 6.28 While a shortfall of a few minutes' fire resistance might result from some minor variation in the construction of the door or uncertainty in fire-resisting testing, the apparent shortfall in the fire resistance of this door is very significant in terms of its suitability for use at Grenfell Tower. If the performance of this door reflects the performance of other flat entrance doors (which is presently unclear to me), this might well be potentially significant in terms of the circumstances of the fire.
- 6.29 Even if this and other doors fail significantly to afford a fire resistance of 30 minutes, this would not, in my opinion, reflect on the competence of Mr Stokes or the adequacy of his FRA. It is frequently impossible to determine, purely from a visual inspection, as to what fire resistance might be afforded by a fire-resisting doorset.
- 6.30 I understand that the doors were fitted with intumescent strips and smoke seals, as well as fire-resisting letterboxes. These features would be typical of a 30 minute (or greater) fire-resisting doorset, but not a non-fire resisting doorset. Mr Stokes also found documentary evidence that 30 minute fire-resisting doorsets had been installed. Therefore, it would, in my opinion have been reasonable for Mr Stokes to have accepted that the doorsets would afford 30 minutes' fire resistance.
- 6.31 With regard to the flat entrance doors that had not been replaced, the number of doors in question (14) is very similar to the number of leasehold flats at Grenfell Tower. Given that Mr Stokes also refers to the fact that doors had been replaced on "*tenanted flats*", this would suggest to me that the doors of leasehold flats had not been replaced, almost certainly because it was considered that this was the responsibility of the leaseholder, as would most commonly be the case in leasehold flats.
- 6.32 With further regard to the doors that had not been replaced, it is clear from the FRA that Mr Stokes did examine a sample of these doors to confirm that they were 44mm thick (as would be the case in a traditional fire-resisting door), that they fitted properly in their frames and that any gaps between the door and the frame were acceptable in size. He also noted that the letterbox was within the lower part of the door; the significance of this is that it is less likely to be affected by fire than if it were in the top half of the door, where positive pressure would tend to force hot gases through the letterbox.
- 6.33 Since Mr Stokes noted in his FRA that the doors in question were the original doors (i.e. had not been replaced by leaseholders), it is almost certain that they satisfied the requirements for fire resistance at the time of their installation. Recognized guidance [B1] is that such doors do not normally need to be

replaced for compliance with the Fire Safety Order. In that sense, replacement of flat entrance doors with doors that would meet the current standard for 30 minutes' fire resistance would be something of a bonus.

6.34 There is evidence that Mr Stokes was alert to the potential risk associated with replacement of an original fire-resisting door with a non-fire resisting door by leaseholders. In this connection, in his "significant findings" table, Mr Stokes noted that (presumably at the actual time of his inspection) the entrance door to Flat 112 was being replaced. Accordingly, he made a recommendation to the TMO that it should be confirmed that the replacement door would afford 30 minutes' fire resistance.

6.35 Nevertheless, it is relevant to note that, in his FRA, Mr Stokes makes a statement that, in view of its significance to the MPS investigation, I reproduce in full below:

"The TMO does not have any control over or legal powers to intervene if the leaseholder changes the flat entrance door. The lease agreement clearly defines that the entrance door is demised to the leaseholder so if there is an issue over the conformity of the flat's entrance door to either the standards required of the Fire Safety Order or the Building Regulations this is a private matter between the leaseholder and the enforcement authority.

There have been meetings on this subject between the TMO and the local LFB fire safety team leaders, minutes of these meetings are held by the TMO Health and Safety team manager along with the relevant policies and procedures. If the apartment is a tenanted one with a TMO tenant not a leaseholder then the TMO has control and will undertake any appropriate actions needed."

6.36 It is relatively clear from the FRA that Mr Stokes (and probably the TMO) also regarded replacement of original fire-resisting doors (which would not afford 30 minutes' fire resistance when tested in accordance with current fire resistance tests) with 30 minute fire-resisting doorsets as a "private matter" between the leaseholder and the enforcing authority.

6.37 It is not entirely clear to me whether, in the paragraphs of his FRA quoted above, Mr Stokes was endeavouring to give legal advice or was reflecting the legal situation perceived by the TMO and advised by London Fire Brigade. As I would not expect Mr Stokes to consider himself as an expert in landlord and tenant law, I make the assumption that Mr Stokes was reflecting information given to him.

6.38 There is a major and well-known issue surrounding flat entrance doors in leaseholder flats. In my experience, the most common situation is that the flat entrance door is demised to the leaseholder, in which case (according to other provisions within the lease) the common view of lawyers is that the freeholder has no power to require the leaseholder to rectify any deficiencies in their flat entrance door.

6.39 However, other situations sometimes arise under the lease. In some leases, ownership of the flat entrance door is retained by the freeholder. In others, the freeholder owns the first few millimetres of depth of the door, so permitting the

freeholder to decorate the external face of the door (e.g. in keeping with other doors in the block).

- 6.40 Accordingly, I have previously recommended to MPS that a lease for a leasehold flat at Grenfell Tower be examined by a lawyer with expertise in landlord and tenant law to determine whether it is correct that nothing in the lease (e.g. general requirements regarding compliance with health and safety, etc) would have permitted the TMO to demand action by leaseholders in respect of deficient flat entrance doors.
- 6.41 Regardless of the situation in civil law, it was not appropriate, in my opinion, for the TMO simply to divorce themselves from any necessary action in relation to inadequate flat entrance doors, even if the statement in the FRA is, strictly, correct, in that the TMO had no powers to act.
- 6.42 In my opinion, if the flat entrance door was demised to the leaseholder, the leaseholder became a person with duties under the Fire Safety Order by virtue of Articles 5(3) and 5(4) of the Fire Safety Order (see paragraph 3.3 of this report). If my opinion is correct, London Fire Brigade could have issued a notice to leaseholders requiring that any necessary work be carried out on flat entrance doors. However, I am aware that the minutes of meeting with LFB, to which Mr Stokes refer, state that LFB advised the TMO that LFB could not take such action.
- 6.43 In my opinion, this is incorrect. However, I have personal experience of a case in which it was quite clear that residents were at significant risk as a result of deficient flat entrance doors, but LFB took the same view as expressed in the minutes of meetings with the TMO. I was informed by a member of LFB legal department that it was not the “will of Parliament” that there should be enforcement action against leaseholders.
- 6.44 Again, I disagree with this view. In my opinion, there was no “will of Parliament” in respect of this matter. It was more the case that this issue was not anticipated when the Fire Safety Order was drafted. Moreover, I am aware that the view of LFB is not shared with certain other fire and rescue authorities in England, at least one of which has taken enforcement action against leaseholders.
- 6.45 I should make it clear that, if leaseholders’ flat entrance doors were adequate, there would be no need for enforcement action. However, the position of LFB, as set out in the minutes, did not relate to the specific condition of the doors at Grenfell Tower, but a generic point of principle in relation to the entire TMO-managed estate. While this may be more a matter for the Public Inquiry to resolve, it is a matter to which, on the instructions of MPS, I will give consideration in a separate report. Accordingly, I make no further comment on the matter in this current report.
- 6.46 Regardless of the power to take action under the Fire Safety Order, there can be no doubt that, if the condition of flat entrance doors created a risk to those other residents using the communal escape route, there was power to take

action under the Housing Act 2004. Enforcement of the Housing Act is the responsibility of the housing authority (i.e. the local authority), who normally use their environmental health officers for this purpose. While, under the Act, a local authority cannot take enforcement action against itself, it can take action against leaseholders. In this case, the housing authority was RBKC.

- 6.47 If a Category 1 or Category 2 hazard (as defined under the Housing Health and Safety Rating System specified in the Act) is brought to the attention of the housing authority, the housing authority has a legal duty to carry out an inspection. Provided the hazard is categorized as Category 1 or Category 2, the housing authority has a duty (in the case of Category 1 hazards) or a power (in the case of a Category 2 hazard) to take enforcement action, which includes the issue of a notice to a leaseholder. Failure to comply with that notice is an offence, for which prosecution is possible.
- 6.48 Accordingly, if the TMO were concerned that leaseholders' flat entrance doors should be upgraded or replaced to ensure the safety of residents (as opposed to simply a matter of best practice), it was open for the TMO to alert RBKC, so that they could take enforcement action. I am unclear as to whether this option was understood by the TMO (or Mr Stokes).

Absence of Smoke Seals from some Fire Doors

- 6.49 In the "significant findings" table for Grenfell Tower, Mr Stokes recorded that he found that some (unspecified) fire doors were not fitted with smoke seals. It would seem that he had been informed that these were omitted on the instructions of the building control officer (presumably in the course of approval of the refurbishment under the Building Regulations). Mr Stokes recommended that this requirement be investigated further.
- 6.50 Omission of smoke seals is normally necessary only when the operation of a smoke control system requires movement of air through the door (e.g. movement from a stairway into a lobby). I am not fully aware of the design principles of the smoke control system at Grenfell Tower. However, this issue should be further considered, as it is possible (depending on the doors to which Mr Stokes refers) that an absence of smoke seals on certain doors might have some bearing on the circumstances of the fire.

Engagement with Residents

- 6.51 According to Mr Stokes, during the course of his FRA, he made contact with a sample of residents. This should be confirmed when Mr Stokes is interviewed, as information he obtained by this means might be relevant in support of other information contained in the FRA.
- 6.52 In the FRA, Mr Stokes makes various assertions as to means of communicating fire safety information to residents. For example, he states that, when residents took occupation of their flat, they were given a residents' handbook and a tour of the building. Again, it should be confirmed that this is

correct, as engagement with residents in this form would be regarded as an important fire safety measure.

- 6.53 Similarly, Mr Stokes stated that no fire procedure notices were displayed at Grenfell Tower because information about the fire procedures was given to residents in other ways. This, again, underlines the importance of verifying that suitable engagement and communication with residents did take place.
- 6.54 Mr Stokes also referred to a 24 hour TMO helpline, by which residents could report defects in fire precautions. MPS may wish to determine the extent to which residents were aware of this helpline, the extent to which it was used and the response to any defects reported.

Fire-Fighting Lifts

- 6.55 In his FRA, Mr Stokes asserts that the lifts at Grenfell Tower had been upgraded to fire-fighting lift standard, such that they would be suitable for use during a fire not only by the fire and rescue service, but for evacuation of disabled people. (It is correct that a modern fire-fighting lift is suitable for evacuation of disabled people, but this strategy is not normally adopted in blocks of flats.)
- 6.56 In this connection, the original lifts in Grenfell Tower would have been “fire lifts” or “firemen’s lifts”, which were intended for use by the fire and rescue service during a fire. However, there were very few measures that would enhance their safety for this purpose. The distinguishing feature from normal passenger lifts was a switch at fire and rescue service entrance level, by which the fire and rescue service could recall the lift to that level, after which controls to summon the lift on each level would be disabled, so that the lifts could only be controlled from within the car. (When not required by the fire and rescue service, these lifts are used as the normal passenger lifts in the building.)
- 6.57 A modern fire-fighting lift has additional fire safety features, the most significant of which are that there are two power supplies, wired in fire-resisting cables, so that, if one power supply fails during a fire, the other power supply will be connected automatically. (The two power supplies may simply be two separate circuits derived from the incoming power supply to the building, but diversely routed.)
- 6.58 It would appear that, again, the information set out by Mr Stokes in relation to these lifts was based on documentation made available by the TMO. This matter should be given further consideration in relation to the BRE investigation into the circumstances of the fire, as it would be of interest to determine the reason that the lifts in the building failed during the fire.

Fire and Rescue Service Access

- 6.59 Arguably, access for fire appliances to the site of the building is outside the scope of the Fire Safety Order. However, Mr Stokes does make reference to this subject. Specifically, at the time of his FRA, Mr Stokes recorded that the

service road/area on the right hand side of Grenfell Tower would be used by the emergency services to park their vehicles, but that this area had been handed over to the contractors, who were still on site, and was, at the time of the FRA, under the contractors' control. It was stated that LFB had visited the site and stated in writing that they were content with the current arrangements.

- 6.60 The FRA also records that, during the construction work, LFB fire safety and operational crews had visited the building on numerous occasions, but no adverse comments had been received in relation to the work being undertaken or fire service access to the building.
- 6.61 I am unclear as to whether this latter comment applies only to access during the construction work, or the access that would ultimately be available for the fire and rescue service. However, I draw attention to this, as I am aware that BRE are considering the adequacy of access to the building for fire appliances at the time of the fire.

Audits and Enforcement by LFB

- 6.62 The FRA records that LFB carried out an audit of Grenfell Tower under the Fire Safety Order, as a result of which a Notification of Fire Safety Deficiencies (NoD) was issued on 24 March 2014. A NoD is a non-statutory notice that is issued in the case of relatively minor deficiencies in fire safety. The NoD was issued by Matthew Ramsey. I am familiar with Mr Ramsey, who is an experienced civilian inspecting officer. I am aware that he has experience of inspecting blocks of flats, and, from involvement in specific cases, I would consider him competent and thorough.
- 6.63 According to the FRA, the NoD contained only three requirements, requiring that maintenance schedules should be put in place for the smoke control system in the building and the emergency escape lighting, and that training on fire safety issues should be given to the staff who worked in the reception area of Grenfell Tower, which no longer existed at the time of the FRA.

7. POSITIVE ASPECTS OF THE FIRE RISK ASSESSMENT

- 7.1 In this section of my report, I set out, as bullet points, numerous aspects of Mr Stokes' FRA that, in my opinion, justify my conclusion that Mr Stokes was competent and that, notwithstanding some criticisms of the FRA set out in Section 8 of this report, the FRA for Grenfell Tower was suitable and sufficient, such as to comply with Article 9 of the Fire Safety Order. These are "tell-tale" indications over and above my conclusion that all appropriate matters that would be considered by any fire risk assessor had been given consideration.
- 7.2 The aspects in question are as follows.
- The FRA contains a review date and a table for recording each subsequent review.
 - The scope of the FRA clearly included plant rooms, risers, and the roof. Mr Stokes reported on housekeeping standards in the plant rooms. There is ample evidence that a thorough inspection was carried out with both positive reporting and reporting of defects.
 - Mr Stokes correctly refers to all relevant legislation (including, for example, the Equality Act 2010).
 - There are correct references to all relevant guidance documents, the contents of which Mr Stokes is clearly aware. He is also aware of relevant information on the website of London Fire Brigade.
 - There is consideration of disabled people.
 - Mr Stokes reasonably recorded the assumption that the refurbishment work had been carried out in compliance with the Building Regulations.
 - Certain matters that were outside the normal scope of a Type 1 FRA were considered, such as certain fire precautions within flats, access for the fire and rescue service and fire spread beyond the building. Mr Stokes also carried out a test of the override facility on the electronic lock on the entrance door; testing of equipment is not normally carried out as part of an FRA.
 - There is a good description of the construction, and there is evidence that he is aware of the risk of sandwich panels (which were not used at Grenfell Tower).
 - There was a recommendation that, after all construction work was completed, plans of the building should be updated.
 - There is evidence of an understanding of the "stay put" strategy.
 - There is evidence that Mr Stokes understood the importance of communicating fire safety information to residents.
 - There is evidence that Mr Stokes considered previous fire loss experience.

- There is evidence that Mr Stokes was familiar with PAS 79 and recognized the steps that PAS 79 advocates in carrying out a fire risk assessment.
- There is evidence that Mr Stokes had made himself familiar with the lessons learned from other fires involving flats.
- There is evidence that Mr Stokes examined a sample of flat entrance doors. In the case of those that had not been replaced, Mr Stokes gave consideration to their adequacy to the extent that he also considered the significance of the location of the letterbox in the door. Mr Stokes noted that the door to Flat 112 was being replaced and the door to Flat 24 was damaged.
- Mr Stokes recorded that inspection and testing of the electrical installation was up to date, but he correctly recommended that a new inspection and test be carried out when the construction work was completed.
- He verified that labels in the building in respect of electrical inspection and testing confirmed the record held by the TMO.
- There is evidence that Mr Stokes was aware of the fire hazards of photovoltaic systems (though there was no system at Grenfell Tower).
- There is extensive evidence of checking of records, which was clearly carried out, as dates of tests, inspections, etc are recorded in the FRA.
- There is extensive consideration of housekeeping standards, etc.
- There is evidence that Mr Stokes considered quite detailed matters in relation to emergency lighting, such as its provision in a disabled toilet in the community room.
- Mr Stokes considered the relevance of notices on each floor level indicating the floor number. The significance of this became evident in the findings in relation to the Shirley Towers fire; in 2013, the coroner's Rule 43 letter recommended that it should be mandatory (potentially by an amendment to the Fire Safety Order, which has never been made) for floor numbers to be displayed on staircase landings and in lift lobbies of high-rise buildings. In Mr Stokes' FRA, there was also consideration of a notice at ground floor level indicating which flats were located on which level for the assistance of the fire and rescue service.
- Mr Stokes examined the provision of smoke alarms within the new flats. He advocated the provision of fire detection in the newly created flats beyond the minimum required under the Building Regulations.
- There is evidence that Mr Stokes understood the latest thinking on the disadvantages of dry powder fire extinguishers.
- Mr Stokes noted the absence of a roof hatch within the lifts, which is something of a detail, but is a facility incorporated in a modern fire-fighting lift.
- There is evidence that Mr Stokes checked the contents of training material used in staff training.

- There is evidence that Mr Stokes was a strong advocate of documentary evidence for all management actions taken. For example, he complained that, while handbooks, incorporating fire safety advice, were provided to residents, there was no documentary evidence that this had been carried out. He also required confirmation that weekly tests of a fire alarm system in plant rooms on the roof and in the basement were being carried out and that emergency lighting was being tested.
- Mr Stokes considered the need for the boxing club and the nursery to carry out their own fire risk assessments and advocated that the TMO should obtain copies of these.
- Mr Stokes clearly examined fire extinguishers, since he identified some extinguishers that had not been maintained since October 2014.
- Mr Stokes made a recommendation regarding handover of information from the contractor to the TMO for compliance with Regulation 38 of the Building Regulations 2010. This is commonly overlooked when construction work is carried out, and Mr Stokes was presumably aware of the potential for this.
- Mr Stokes recommended that, when contractors had completed their work, printouts of flue gas analysis be attached to the boilers. This is a matter that a fire risk assessor would not normally consider, as it relates to health and safety, but is indicative of thorough consideration given to safety by Mr Stokes.
- Mr Stokes noted rusting on a hatch and its frame, which constituted an alternative means of escape from the boiler area; again, this is indicative of attention to detail in a thorough inspection.
- Mr Stokes drew attention to painting of intumescent strips on some fire doors, which probably does not affect their performance but is bad practice; again, this is indicative of attention to detail in Mr Stokes' inspection.
- Mr Stokes found information that would suggest that the gas supply to the building was shut off if automatically-opening vents in the smoke control system operated. He correctly pointed out that this should not be the case.
- While noting that the lightning protection system had been subject to maintenance, Mr Stokes asked for confirmation that the system had actually passed the test carried out, as this was not clear from the documentary evidence.

8. NEGATIVE ASPECTS OF THE FIRE RISK ASSESSMENT

8.1 Notwithstanding the many positive aspects of the FRA, I would make a number of minor criticisms, some of which I described in Section 6 of this report.

8.2 For completeness and objectivity, I summarize these criticisms below:

- There is evidence that some of the wording in the FRA is simply standard wording, which can be found in other FRAs, from which there may have been an element of “cut and paste”. The most blatant of these is, as discussed in Section 6 of this report, reference to pest control and visual inspection of pigeon netting on balconies, which did not even exist at Grenfell Tower.
- It is unclear as to whether there was contact with the contractors, who, at the time of the FRA, still had control of some lower floors, and any contact with the nursery and the boxing club, to consider any necessary co-operation that was required between them and the TMO to co-ordinate the fire safety measures required under the Fire Safety Order. However, there was confirmation that Rydons had carried out their own fire risk assessment, and it may be that, at the time in question, the nursery and the boxing club were not in operation.
- I refer again to the inappropriate statement regarding the need to provide the FRA to the enforcing authorities and the potential for the FRA to be used against the TMO.
- I refer again to the misleading use of post-nominals, though this does not impact on the validity of the FRA.
- I refer again to the incorrect identification of the Responsible Person, which Mr Stokes recorded as the Chief Executive of RBKC. However, again, this does not impact on the validity of the FRA.
- I refer again to the information that the cladding as “fire rated”, though this is not so much a criticism of the FRA as a possible issue in relation to information made available to Mr Stokes. While, as already discussed, the external wall construction was outside the scope of the Fire Safety Order (and, hence, need not have been considered in the FRA), having discussed the cladding, it might have been appropriate to also discuss the insulation material behind the cladding and the provision (or otherwise) of cavity barriers (assuming that information was available on these matters).
- I am inclined to question whether the lifts had, as stated in the FRA, been upgraded to fire-fighting lifts. I discussed this issue in Section 6 of my report, and, unless the information is simply an inappropriate “cut and paste” from another FRA, the issue is more one of information made available to Mr Stokes, rather than the adequacy of his work in carrying out the FRA.
- As discussed in Section 6, better information might have been provided in relation to enforcement action against leaseholders if their flat entrance

doors were inadequate. However, as discussed in Section 7, it is clear that Mr Stokes examined a sample of these doors, in respect of which there were not necessarily any deficiencies.

- In discussing housekeeping, Mr Stokes indicates that the policy in the common parts was one of “managed use”, as defined in the Local Government Association guidance on fire safety in purpose-built blocks of flats. While this can be acceptable, Mr Stokes suggests that pushchairs within flat lobby areas would be acceptable, provided they do not cause an obstruction. This is a moot point, particularly given Mr Stokes’ apparent knowledge of a fatal fire in a small terraced property in Prestatyn, which was divided into two flats; that fire was started in a pushchair. However, equally it might be said that Mr Stokes had taken that fire into account, since he advised that no combustible items should be piled up on the pushchairs (which was the case in the Prestatyn fire).
- There is something of a contradiction in comments on risers, in that he requested documentation to verify that the new fire-resisting riser doors would afford 30 minutes’ fire resistance, but, elsewhere in the FRA, Mr Stokes stated that panels above the riser doors did not need to be fire resisting because the risers were sealed at floor level. If the risers were sealed at floor level, there would be less need for fire resistance of their enclosure, but an element of fire resistance might still be of value depending on the services within the riser cupboards and any fire hazards that they might constitute. However, I do not consider this to be a major issue.
- Mr Stokes did not appear to consider the need for regular testing of the fire-fighters’ switch, which was provided to enable fire-fighters to ground the lifts and bring them under control solely from the lift cars. It would be harsh to suggest that this oversight would mean that the FRA was not suitable and sufficient. Moreover, I have been given no evidence to indicate whether regular testing was, or was not, carried out. However, it is relevant to note that I have been informed by MPS that the switch did not operate correctly on the night of the fire.
- There is a shortage of information on the smoke control system in the building.

8.3 I do not consider that, in aggregate, with the possible exception of the information on the external cladding, any of the above negative features of the FRA were such that it could be said that the FRA was not suitable and sufficient; to the extent that it could be said that it was not suitable and sufficient, any significant shortcomings appear to be based on information provided to Mr Stokes and reasonably accepted by him, and/or the relevant shortcomings did not result in the risk of death or serious injury of any relevant person.

8.4 With regard to the external cladding, identification of the serious fire risk that it created would, obviously, if acted upon, have averted the risk of death of relevant persons clearly demonstrated by the fire. While, on the one hand, it can be argued that the cladding was outside the scope required of a suitable

and sufficient FRA, it could equally be argued that if, at his own prerogative, a fire risk assessor includes in his FRA information beyond the minimum required by legislation, the Responsible Person is entitled to rely on that information.

- 8.5 However, as discussed in Section 6 of this report, it would not have been possible for Mr Stokes to reach a conclusion as to the fire performance of the cladding by simple visual inspection. Given the predilection of Mr Stokes for documentation and verification of information contained in his FRA, it seems likely that Mr Stokes stated that the cladding was "*fire rated*" on the basis of some information given to, or observed by, him.
- 8.6 Accordingly, I would advise that MPS should, in their interview of Mr Stokes, carefully investigate the reference to fire rating of the cladding in his FRA to, firstly, eliminate any possibility that Mr Stokes made this statement recklessly and, secondly, to assist MPS with their investigation of how installation of the hazardous ACM cladding came about.

9. CONCLUSIONS REGARDING THE FIRE RISK ASSESSMENT

- 9.1 My instructions from MPS require that I give an opinion as to whether, by virtue of any failure(s) on the part of Mr Stokes, in relation to his conduct of the FRA, the documentation of the significant findings of the FRA or the recommendations contained within the FRA document ("the Action Plan"), Mr Stokes breached any duty(ies) imposed on him by the Fire Safety Order, particularly Article 9 of the Fire Safety Order.
- 9.2 My instructions further require that if, in my opinion, any duty imposed on Mr Stokes by the Fire Safety Order was breached, I opine whether the said breach placed one or more relevant persons at risk of death or serious injury in case of fire.
- 9.3 In my opinion, I have not been presented with evidence of any failure(s) on the part of Mr Stokes, such as to demonstrate a breach of any duty imposed on Mr Stokes under the Fire Safety Order. In this connection, in my view, in carrying out the FRA, Mr Stokes was thorough to an extent that could be described as meticulous. He did overlook the need for regular testing of the fire-fighters' switch for the lifts, but, in my opinion, this is a relatively minor omission when taken in the context of the overall findings of the FRA.
- 9.4 My further opinion is that, to the extent that it might be argued that, by virtue of information that subsequently can be shown to be incorrect, the FRA was not suitable and sufficient, as required by Article 9 of the Fire Safety Order (e.g. reference to pigeon netting on balconies or, for example, should it transpire that the lifts had not been upgraded to the fire-fighting lift standard), such shortcomings did not place any relevant person at risk of death or serious injury in case of fire, such as to constitute an offence.
- 9.5 However, it is abundantly clear that it was incorrect to state in the FRA that the external cladding was "fire rated". Although this term has no proper definition, its use in the context of the FRA is clearly intended to indicate that the fire performance of the cladding was fit for purpose. Given the circumstances of the fire, it is uncontentious that this is incorrect.
- 9.6 While, in my opinion, it was not incumbent on Mr Stokes to make any comment on the cladding, if the statement was made unilaterally by Mr Stokes without any proper basis, RBKC and the TMO were, in my opinion, entitled to rely on the information.
- 9.7 Accordingly, I would advise that MPS should interview Mr Stokes in relation to his statement regarding the cladding. In my opinion, this is necessary to eliminate what I believe to be a remote possibility that the statement was made recklessly by Mr Stokes, with no foundation for it. If, as seems much more likely, the statement was made on the basis of information provided to Mr Stokes by others, or on the basis of documentation studied by Mr Stokes, the source of the information will clearly be of value to MPS in their investigation of the fire and consequent deaths.

ANNEX A

AUDIT OF FIRE RISK ASSESSMENT AGAINST PAS 79

AUDIT OF FIRE RISK ASSESSMENT AGAINST PAS 79

In this annex, simply for rigour, I set out the findings of an audit of the FRA, which I carried out against the recommendations of PAS 79, which is recognized guidance on the methodology of fire risk assessment.

Clause of PAS 79	Topic and Key Recommendations	Compliance of Grenfell Tower FRA
4	Concepts of fire risk and fire hazard. Recommendations for separate consideration of fire hazard and fire risk.	Clear understanding exhibited by Mr Stokes. Sample template in PAS 79 used, which leads to separate consideration of fire hazard and fire risk.
5	Principles and scope of fire risk assessment. Recommendations for matters to be taken into account and documented (e.g. details of the premises, occupants, previous fires and action plan). Noted that fire engineering design does not need to be reviewed from first principles, but maintenance of systems included in the solution needs to be considered.	Very clear and extensively detailed description of premises. Fire hazards, fire protection measures and fire safety management all fully considered. Action plan provided separately.
6	Responsibility for adequacy of the fire risk assessment. Notes that competent person within the Responsible Person organization should oversee any third party fire risk assessor and confirm their competence. Recommendation that Responsible Person should ensure that the fire risk assessor has access to relevant people, relevant documentation and relevant information.	Evidence that Mr Stokes was competent and liaised with the TMO. Extensive evidence of access to documentation and information.
7	Competence of fire risk assessors. Recommendations for the fire risk assessor to: a) understand relevant fire safety legislation. b) have a thorough knowledge and understanding of relevant Government guidance documents. c) have appropriate education, training, knowledge and experience in the principles of fire safety.	In my opinion, Mr Stokes is capable of demonstrating compliance with the recommendations of this clause.

Clause of PAS 79	Topic and Key Recommendations	Compliance of Grenfell Tower FRA
	<p>d) have an understanding of fire development and the behaviour of people in fire.</p> <p>e) understand the fire hazards, fire risks and relevant factors associated with occupants especially at risk within the premises.</p> <p>f) understand the causes of fire and means for their prevention.</p> <p>g) understand the design principles of fire protection measures.</p> <p>h) have appropriate training and/or experience in carrying out fire risk assessments.</p>	
8	<p>Benchmark standards for assessment of fire precautions. Recommendations for use of appropriate guidance documents. Justification for departures from recommendations of recognized codes.</p>	<p>Mr Stokes has clear knowledge of the relevant standards and their recommendations, though there is a suggestion that he might be unduly rigid in his application of these.</p>
9	<p>Assessment of premises design and fire precautions that do not conform to current standards. Recommendations for fire risk assessor to have a basic understanding of original standards and for judgement to be applied to departures from current standards.</p>	<p>Evidence of use of judgement, with rationale for recommendations (e.g. in relation to adequacy of original flat entrance doors).</p>
10	<p>Documentation of findings. Recommendations for matters that should be recorded.</p>	<p>Very thorough documentation of FRA, using extensive descriptive information and free text in conjunction with the template from PAS 79.</p>
11	<p>Nine steps to fire risk assessment.</p>	<p>Follows the structure of PAS 79 in conjunction with Mr Stokes' own text.</p>
12	<p>Relevance of information about the premises, the occupants and the processes.</p>	<p>Evidence that all relevant information has been taken into account.</p>
13.	<p>Identification of fire hazards and means for their elimination or control. Recommendations for consideration of the common causes of fire, including poor housekeeping.</p>	<p>All relevant hazards and control measures considered.</p>

Clause of PAS 79	Topic and Key Recommendations	Compliance of Grenfell Tower FRA
14.	Assessment of the likelihood of fire.	Correctly judged as “Medium” on the basis of the information available.
15.	Assessment of fire protection measures. Recommendations for consideration of active and passive fire protection measures. Note that there is no recommendation in PAS 79 for consideration of external cladding.	All relevant measures considered, though reference to significant findings document for more information, but no further information included in that document, so there is a shortage of documented information on the smoke control system.
16.	<p>Assessment of fire safety management. Recommendations for consideration of:</p> <ul style="list-style-type: none"> a) fire procedures. b) arrangements for summoning the fire and rescue service. c) the nomination of people to respond to fire. d) where appropriate, the nomination of people to assist with evacuation. e) arrangements for liaison with the fire and rescue service. f) arrangements for routine inspections of the premises and their fire precautions. g) in premises in multiple occupation, arrangements for co-operation and co-ordination between occupiers. h) staff training. i) fire drills. j) provision of information to third parties. k) testing and maintenance of fire protection systems and equipment, including equipment for use by fire-fighters. l) maintenance of the workplace. m) appropriate records, which the fire risk assessor is encouraged to study. 	All relevant matters considered in the documented FRA, except arrangements for routine testing of the fire-fighters’ switch for the lifts.
17.	Assessment of likely consequences of fire.	Considered by virtue of use of the matrix in PAS 79. Correct conclusion reached (in the absence of knowledge of the hazard presented by the external cladding).

Clause of PAS 79	Topic and Key Recommendations	Compliance of Grenfell Tower FRA
18.	Assessment of fire risk.	Addressed by virtue of use of the matrix in PAS 79 (though minor editorial error by not using the version for premises in which people sleep). Assessment of the risk as “tolerable” is, in my opinion, correct in the absence of knowledge of the hazard presented by the external cladding.
19.	Formulation of an action plan.	Suitably prioritized action plan provided.
Annex D	Key factors to consider in assessment of means of escape.	Evidence of key factors were considered in the FRA.

ANNEX B

REFERENCES

REFERENCES

B1	Fire Safety in Purpose-Built Blocks of Flats. Local Government Association. May 2012.
B2	PAS 79: 2012. Fire risk assessment–Guidance and a recommended methodology. British Standards Institution.