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Your ref:

Our ref: Z1718257/SRW/B5

26 April 2018

Dear Madam

Ministry of Housing, Communities and Local Government – Fire Doors Information

- Thank you for your letter dated 5 April 2018 in which you requested further information and clarification on a number of matters, in relation to fire doors investigations. References to fire doors made throughout this letter refer to a fire door in a compartment wall that separates a flat from a space in common use (Approved Document B 2013, vol. 2, Appendix B, Table B1, section 2a.).
- 2. As soon as the Metropolitan Police informed us of the results of the test of a fire door from Grenfell Tower, conducted as part of their investigation, the Government asked the Independent Expert Panel to consider whether there might be wider public safety implications and advise on any action that might be required as a result. The Expert Panel is made up of a range of building and fire safety experts, chaired by Sir Ken Knight, the former London Fire Commissioner and former Government Chief Fire and Rescue Adviser.
- 3. The panel consulted with representatives from the Metropolitan Police, the Government's Chief Scientific Advisers and the National Fire Chiefs Council (NFCC). Following this, the Expert Panel advised that the risks to public safety remain low and that current fire safety advice should not be changed, and that further investigations into fire doors from Manse Masterdor should be undertaken.
- 4. We have taken forward further investigations, focusing on fire doors manufactured by Manse Masterdor. Our timetable for testing and inspection is primarily driven by: the capacity of test houses to prioritise our testing; the speed at which suitable and relevant doors can be secured from buildings through consent; and, the number of tests required to support the Expert Panel in developing their advice.

Lee John-Charles - Head of Division
Gary Howard - Deputy Director, Team Leader Litigation B5







- 5. The Expert Panel, supported by the Government's Chief Scientific Advisers and the National Fire Chiefs Council are seeking to ensure tests and inspections are undertaken at pace to identify any potential problems and support the formulation of advice as swiftly as possible. They are utilising analytical tools such as statistical probability to support them in making this judgement. Currently we are holding the characteristics (glazed/unglazed) constant and testing across years, style and location to understand if there is an issue with a particular characteristic (glazed/unglazed) across the range of fire doors produced be a single manufacturer (Manse Masterdor, which ceased trading in 2014). If early results do not allow for conclusions that the issue is limited to a particular characteristic, we can additionally hold the year constant and vary tests across styles and locations.
- 6. Each round of tests and inspection provides additional information for example, how long a door survives a furnace test and what inspection reveals about the construction of the door and any elements that fail informs the decision as to the needs for further testing. As a result it is difficult at this stage to provide clarity about future tests. However, for the purposes of work planning we aim to complete all the testing required for Manse Masterdor before the Autumn. We may conclude earlier depending on test results.
- 7. A table setting out the results of tests on Manse Masterdor fire doors is set out below. Detailed reports are prepared following each test but take time to produce. We enclose the detailed report from the test we have received to date and will share the remaining reports with you when we receive them.

Table 1: Test Programme and Results as at 24 April 2018

Date	From	Style	Manufacture date	Test standard ¹	Test House	Time of failure (approx.)
A. Manse Masterdor Glazed						
13/02/2018	K&C	SG34	2011	European	BRE	15
01/03/2018	K&C	SG15	2011	British	BRE	17
06/04/2018	Lewisham	SG34	2012	British	Exova	28
06/04/2018	Knowsley	SG11	2009	British	Exova	40
22/04/2018	Lambeth	SG34	2011	British	Exova	23
22/04/2018	Lambeth	SG11	2011	British	Exova	27
B. Manse Masterdor Unglazed						
24/02/2018	K&C	SG07	2011	British	BRE	27
15/11/2017	Camden	SG08	2015	European	Exova	18
13/12/2017	Camden	SG08	2015	British	Exova	25
13/12/2017	Camden	SG08	2015	British	Exova	26
11/04/2018	Camden	SG08	2014	British	Exova	20
11/04/2018	Knowsley	SG08	2010	British	Exova	25
C. Synseal Masterdor Glazed						
28/03/2018	Synseal	SG34 (old) ²	2018	British	Exova	16
28/03/2018	Synseal	SG34 (new)	2018	British	Exova	23

- 8. The Expert Panel's advice that the risks to public safety remain low and that current fire safety advice to the public should not be changed is based on the information (test results and risk assessment) they have at the time. Their view on the 18 April, when they last met, was there was insufficient evidence to suggest that there was a widespread problem with fire doors, and they noted that:
 - a. Fire doors are a passive means of protection from the spread of fire and smoke, and do not contribute to any active spread of fire or increase the fire loading beyond what would normally be expected. This is not comparable to the issue discovered with Aluminum Composite Material (ACM) cladding systems which can act as a fire accelerant.
 - b. Fire doors are one of a number of fire protection measures within buildings. Whilst a properly functioning fire safety door can act as one of a number of effective means of protection during a fire, current operational response does not rely on an assumption that all fire doors operate as expected.
 - c. The 'Stay put' standard advice adopted by fire and rescue services for residents in purpose built blocks of flats is a layered strategy, provided in the full consideration of fallibility of fire doors as listed above.
 - d. Home Office evidence³ shows that it is unusual for fires in flats to spread beyond the room or flat of origin.

¹ European = BS EN 1634-01: 2000: British = BS 476 Part 22: 1987

² Old = manufactured to the old style; New = manufactured to a newer style

- e. Test conditions replicate temperatures experienced in a developed and intensive fire and therefore the performance in test conditions, while important, does not have a direct relationship to performance in a real fire, where smoke management is a key factor in resident safety. It is therefore possible for doors that do not achieve the 30 minute integrity in test conditions to resist the passage of smoke and flame for a significant period from the time of ignition in real life, dependent on the circumstances of that fire.
- 9. The Expert Panel considered an ACM clad tower block and if further measures were required for these types of buildings should the fire doors not perform as expected. The main concern for ACM clad tower blocks is the potential for compartmentation to be breached and the role of fire doors in preventing the spread of this fire. Following advice from the NFCC, the Expert Panel concluded that the NFCC advice introduced following the Grenfell Tower fire for tower blocks known to have ACM cladding systems, requiring 'interim measures' until the removal of ACM cladding provided sufficient assurance that buildings could be evacuated safely if required. As a result they did not believe additional measures to the interim measures were required.
- 10. The Expert Panel asked the NFCC to continue to develop the risk assessment, supported by the Government's Chief Scientific Advisors in a peer review / challenge capacity. They recommended that future risk assessments, undertaken by the NFCC, should model different scenarios such as an ACM clad tower block and a building with vulnerable people. The latest version of risk assessments, sensitivity analysis and the NFCC briefing note on fire door sample and public safety in blocks of flats are enclosed as requested. The Expert Panel keeps its advice under review.
- 11. We have sought to answer your questions as clearly as possible and officials within MHCLG stand ready to discuss any of the points raised, or to answer further questions if required.

Yours faithfully

Sarah Wise

Sarah Wise For the Treasury Solicitor

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Enclosed:

 Secretary of State for Housing, Communities and Local Government's oral statement on fire door investigation, 15 March 2018

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/622114/fires-in-purpose-built-flats-england-april-2009-to-march-2017.pdf

- 2. Written Ministerial Statement on fire door investigation laid on 16 April 2018
- 3. BRE fire resistance test report for the test carried out on 24 February 2018
- 4. The latest version of the NFCC briefing note on fire door sample and public safety in blocks of flats
- The latest version of the risk assessments being carried out by the NFCC with support from Government's Chief Scientific Advisors
- 6. Fire risk assessment NFCC sensitivity analysis

Annex A: Expert Panel and technical experts

The Expert Panel is made up of a range of building and fire safety experts and chaired by Sir Ken Knight, former London Fire Commissioner and former Government Chief Fire and Rescue Adviser. The panel members are:

- Ann Bentley, a member of the CBI's Construction Council and a Chartered Member of the Institution for Civil Engineers
- Dr Peter Bonfield, Chief Executive of the Building Research Establishment (BRE), who has recently stepped down from his position at the BRE and from the Expert Panel
- Roy Wilsher, Chair of the National Fire Chiefs Council

Other organisations engaged in providing technical advice to the Expert Panel on a regular basis include:

- The National Fire Chiefs Councils
- The Government's Chief Scientific Advisers
- The Health and Safety Executive
- The Metropolitan Police
- Fire Industry Association
- British Woodworking Federation
- Secure by Design
- · Glass and Glazing Federation
- Door and Hardware Federation