

Simultaneous Evacuation Guidance

Addendum 1 – Maintaining Fire
Safety Provisions

Draft Issued on: 30/07/2021
(This addendum should be read alongside the third
edition of the Simultaneous Evacuation Guide, issued:
01/10/20)

Purpose

This addendum has been produced to draw the attention of Responsible Persons to recent instances where some fire safety systems have not operated as intended during fires in high-rise residential buildings. This addendum signposts RPs to further information and existing resources to support them to meet their ongoing responsibilities and improve the safety of residents.

1. Maintaining Fire Safety Provisions

- 1.1. A change from a stay put evacuation strategy to a simultaneous evacuation strategy is significant, and where this change occurs, it is vital to check preventative and protective measures are working as designed, and subject to a suitable and sufficient system of maintenance.
- 1.2. Where it is found that measures are not working as required, steps should be taken to return them to the required level of operation. This addendum aims to consolidate and centralise the most relevant and up to date information to assist those responsible for maintaining fire safety provisions.
- 1.3. Where a change has been made to the evacuation strategy, Responsible Persons must give particular consideration to the fire safety provisions in the building that protect the means of escape and provisions to support effective firefighting and protect firefighters. This is essential to ensure that in the event of a fire people in the building can evacuate as quickly and safely as possible.
- 1.4. Following a number of incidents at buildings operating a temporary simultaneous evacuation strategy, this addendum is provided to assist Responsible Persons in assuring themselves that suitable management systems are in place to ensure that fire safety provisions are operating effectively, and maintained in efficient working order and good repair.

2. Smoke Control Systems

- 2.1. An appropriately designed, installed, and maintained smoke control system is essential to effectively managing fire safety risks in a residential building.
- 2.2. Smoke control can play a critical role in protecting escape routes in residential buildings in the event of fire. The primary objective being to protect the staircase enclosure, but the system may also be designed to provide protection to the adjacent lobby or corridor.
- 2.3. The type of smoke control system will depend on the age and size of the building along with other factors such as corridor/lobby sizes and numbers of stairs. In older buildings this may take the form of natural non-automatic ventilation. This can be through either openable vents or vents which are permanently open. In newer buildings it is more likely the smoke control system may involve automatically operated functions that are controlled via a fire detection system in the common parts.

- 2.4. Responsible Persons should be aware of the type of smoke control system in their building and how this is intended to control the spread of smoke in the event of fire. These details should be available in original design information, but if it is not, then the Responsible Person should seek professional advice from a competent person in order to understand how the system installed is intended to function.
- 2.5. There should already be a system of testing and maintenance in place for any smoke control system. The standards for the maintenance and testing of smoke control systems are set out in BS EN 12101 and BS 9999. These British Standards recommend the following testing of smoke control systems should take place:
- Weekly testing by the Responsible Person to ensure that the smoke ventilation is operating effectively. A weekly test should involve the simulated actuation of the system to ensure that any fans and powered exhaust ventilators operate correctly, smoke dampers close (or open in some cases), natural exhaust ventilators open and other features such as automatic smoke curtains operate as required.
 - Every three months there should be an actuation of all smoke control systems where all zones should be separately tested, and it should be ensured that the items detailed above operate correctly.
 - At least annually, there should be a full system inspection and test carried out by a suitably qualified person.

A record of this testing and maintenance should be kept for best practice.

- 2.6. If the Responsible Person is in any doubt as to the tests that should be carried out, then they should contact the manufacturer and /or installer of the system for further information.
- 2.7. When a decision is made to change the evacuation strategy it is recommended that, unless a full system test has been undertaken recently, one should be arranged to ensure that the smoke control system is in efficient working order. Where any problems are identified, immediate action should be taken to remedy any defects in the operation of smoke control systems.
- 2.8. Where the repair cannot be carried out immediately, a review of the fire risk assessment should be carried out to determine what interim and/or mitigation measures are required and how long these should remain in place. It is likely that any temporary arrangements will be required until the smoke control system is repaired and has been tested to evidence that it is functioning effectively.
- 2.9. The interim or mitigation measures to be put in place will vary from building to building and the Responsible Person should seek professional advice from a suitably qualified fire engineer. The local Fire and Rescue Service should also be informed and consulted on the planned mitigation measures.
- 2.10. The Smoke Control Association provides advice on issues related to smoke control systems and has published 'Guidance on Smoke Control to Common Escape Routes in Apartment Buildings (Flats and Maisonettes)'. This is available on their

website, along with other specific advice at: www.feta.co.uk/associations/hevac/specialist-groups/smoke-control-association.

- 2.11. There have been issues with electromagnetic holding devices for vents which can have an unpredictable performance leading to failure under fire conditions. Such failure can occur due to a loss of power to the devices, or through the magnetic fields of the devices being weakened as temperatures in and around the smoke shaft increase. The use of electromagnetic holding devices as part of any smoke ventilation shaft installation should therefore be reviewed as part of the fire risk assessment with the intent replacing these devices with a more robust form of vent actuator.

3. Fire Doors

- 3.1. Flat entrance fire doors leading to shared or communal areas are designed to provide fire and smoke protection and are part of a layered approach to most fire strategies for residential buildings. This is essential to protect the means of escape and ensure that in the event of a fire people can evacuate as quickly and safely as possible.
- 3.2. It is important that all fire doors, including flat entrance front doors, those in common areas such as cross corridor doors and those protecting stair enclosures, including the self-closing devices, are routinely inspected and maintained by a suitably qualified professional. Residents should be made aware of the significant importance of a working self-closing device on all fire doors.
- 3.3. Responsible Persons should aim to replace existing flat entrance door sets if they suspect they do not meet the fire or smoke resistance performance in the 'Fire safety in purpose-built blocks of flats' guide. A risk assessment process should be used to determine how urgently such doors should be replaced.
- 3.4. [Annex A of 'Advice for Building Owners of Multi-storey, Multi-occupied Residential Buildings'](#) provides further advice to assist responsible persons to assess the risk, and remedies, relating to existing fire doors in residential buildings. This detailed advice is for the attention of anyone responsible for the fire safety of residential flats and who is concerned about the fire and smoke resistance of fire doors.

4. Facilities for Protection of Firefighters

- 4.1. The Responsible Person must ensure that the any facilities provided for the use by or for the protection of firefighters are subject to a suitable system of maintenance.
- 4.2. All facilities provided for firefighters should be checked, including firefighters lifts and dry or wet rising mains, to ensure they are maintained in an efficient state, in efficient working order and in good repair. If you have any concerns whatsoever, you should contact your local fire and rescue service, who will, if they have not already done so, carry out an inspection to ensure functionality (N.B this does not replace the need to ensure that the lift is regularly serviced by a competent maintenance contractor. Where the repair cannot be carried out immediately, a review of the fire risk

assessment should be carried out to determine what interim and/or mitigation measures are required and how long these should remain in place.).

- 4.3. A firefighting lift is a lift with protection measures, controls and signals that enable it to be used under the direct control of the fire and rescue service in fighting a fire. The maintenance requirements for firefighter lifts are given in BS EN 81-72 Firefighting Lifts and typically require:
- A weekly activation of the firefighter lift switch to check the lift returns to the fire service access level, parks with its doors open and does not respond to landing calls. Any connections to any Building Management Systems that are present should also be checked on a weekly basis.
 - A monthly check of the secondary power supply which will involve the simulation of a failure to the primary power supply. Where the secondary power supply is a generator, it should energize the lifts of at least one hour.
 - Annually, a full test of the firefighters lift operation should be carried out by a competent person in accordance with the appropriate British Standard.

A record of this testing and maintenance should be kept for best practice.

- 4.4. Note: the standard and functionality of lifts provided for the Fire and Rescue Service use has changed over the years. The RP should understand the type of lift and functionality provided in their building. Lifts should be maintained to the standard to which they were installed. Further information on lifts provided for the Fire and Rescue Service can be found in Annex B. of BS 8899:2016 Improvement of firefighting and evacuation provisions in existing lifts - code of practice. In order that the fire and rescue service personnel, when first arriving at the lift, can identify the features provided with the lift, any lift intended to be used by fire and rescue service personnel should have an indelible label as shown in Figure 1 of BS 8899:2016.
- 4.5. Ensure that there is sufficient roadway access and hardstanding for firefighting vehicles attending incidents which are required to allow firefighting to commence as expediently as possible.

5. Other Measures

- 5.1. Check that, at ground level, or on any balconies, there are no combustible materials (e.g. storage of refuse) in the vicinity of the external wall system. Ensure that there are measures to prevent combustible materials in such locations (e.g., by temporary barriers or instructions to residents) from accumulating. Instruct residents that they must not have any barbecue on any balcony, or use their balcony for smoking.
- 5.2. Close any car parks or adjacent car parking where a vehicle fire could impinge on cladding.
- 5.3. Check all walls that separate flats, plant and storerooms, etc. from escape routes to ensure there are no obvious routes for fire or smoke spread (e.g., holes where services, such as pipes and cables, pass through walls).

6. Information to Residents

- 6.1. Residents must be advised to ensure all smoke alarms are present and working in their flat, and to report concerns about fire safety measures in the building (e.g. presence of combustible materials in escape routes) to their landlord and, understand the purpose and importance of any short-term interim measures being taken.
- 6.2. The Responsible Persons should engage with residents of the building to ensure that they fully understand the emergency fire procedures in the building. Fire procedure notices should be updated, where necessary, to ensure they are accurate. This is particularly important where a 'stay put' strategy is temporarily being changed to one of simultaneous evacuation.

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