



LONDON FIRE BRIGADE

Decision title

High Rise Firefighting – Policy Number 633

Recommendation by

Assistant Commissioner, Operational Policy and Assurance

Decision Number

LFC-0304x-D

Protective marking: **NOT PROTECTIVELY MARKED**

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Summary

Following the Grenfell Tower fire on 14 June 2017, Operational Policy and Assurance (OPA) reviewed and made changes to Policy Number 633 (PN633) High Rise Firefighting.

This report provides a synopsis of:

- Process undertaken to reach the proposed new version of PN633
- Overview of the key changes
- Rationale for changes
- Training and next steps

Decision

The London Fire Commissioner approves the changes to PN633 High Rise Firefighting set out in report LFC-0304x, noting that the effective date of implementation is subject to training and equipment provision as outlined in the report, and that the policy may be subject to further amendment.

Andy Roe

London Fire Commissioner

Date 12th FEB 2020

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LONDON FIRE BRIGADE

Report title

High Rise Firefighting – Policy Number 633

Report to

Commissioner's Board
London Fire Commissioner

Date

29 January 2020

Report by

Assistant Commissioner, Operational Policy and Assurance

Report number

LFC-0304x

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Summary

Following the Grenfell Tower fire on June 14 2017 Operational Policy and Assurance (OPA) have reviewed and made changes to Policy Number 633 (PN633) High Rise Firefighting.

This report provides a synopsis of:

- Process undertaken to reach the proposed new version of PN633
- Overview of the key changes
- Rationale for changes
- Training and next steps

Recommended decision

The London Fire Commissioner approves the attached changes to PN633 High Rise Firefighting, noting that the effective date of implementation is subject to training and equipment provision as outlined in the report, and that the policy may be subject to further amendment.

Background

1. The process of reviewing and amending PN633 began in the months immediately following the Grenfell Tower fire. The amendments to this policy have been informed by consultation with Representative Bodies (RBs) beginning in November 2017 and the establishment of a National Working Group which examined the challenges associated with high rise buildings that do not behave as designed in fire situations.
2. The changes to the policy have been informed by the outcomes of Phase 1 of the Grenfell Tower Public Inquiry. The revised policy has been subject to extensive Heads of Service consultation, having initially been submitted for consultation in March 2019, followed by a further submission in July 2019. This included working closely with Fire Safety Regulation and consultation with the Grenfell Tower Investigation and Review Team (GTIRT) and General Counsel. This takes into account National Operating

Guidance (NOG) insofar as it has been updated, but PN633 does move beyond current NOG. From November to December 2019 further consultation took place between Directors, General Counsel, GTIRT and the FBU, culminating with the policy being agreed at an extraordinary meeting of the Brigade Joint Committee for Health, Safety and Welfare (BJCHSW) on December 20 2019. Subsequently concerns have been raised by National and Regional FBU about the policy. We will continue to engage with the FBU and attempt to work through their concerns as training for this policy is delivered.

3. We recognise that as building legislation changes and the outcomes of Phase 2 of the Inquiry (once published) will require the policy to be reviewed and changed. We have already formally agreed with the London region to undertake a monthly review of the policy within the BJCHSW to ensure it remains current and reflect the changing circumstances.

Key Changes

4. The changes to PN633 have been designed to enable crews to prepare for, recognise and react to failures in building compartmentation and include:
 - a. Protection of the stairwell
 - The policy provides tactical flexibility to support operational crews in maintaining compartmentation of stairwells.
 - The introduction of Stairwell Safety Officers.
 - b. Dedicated External Safety Officers/Spotters
 - These must be in place to carry out stairwell protection measures.
 - Hazards and control measures detailed for External Safety Officers.
 - c. Definitions
 - The policy provides guidance on what 'Evacuation', 'Emergency Evacuation', 'Rescue' and 'Mass Rescue' mean.
 - d. Recognising Building Failure
 - The policy provides guidance on how to recognise the signs and symptoms of High Rise building failure.
 - e. Guidance on how to implement an Emergency Evacuation and Mass Rescue
 - f. Use of Breathing Apparatus
 - The policy allows the IC (under specific circumstances) to commit crews with breathing apparatus but not started up above the bridgehead so that they can reach areas in safe air without using the limited supply in their Breathing Apparatus.
 - g. Managing the increased risk of Emergency Evacuation and Mass Rescue

Rationale for changes

5. Until the issues identified within the built environment regarding how buildings behave in fire situations are addressed nationally through government intervention and legislative changes, which must then be acted on properly by those directly responsible for residential fire safety, we must equip and train our firefighters, so far as is reasonably practicable, to respond to the realities of the built environment they operate in.
6. The London Fire Commissioner (LFC) recognises that where, exceptionally, buildings and fires within them do not behave as designed or expected, both members of the public and firefighters may be exposed to risk. That risk may include the risk of death or serious injury. Difficult and finely balanced decisions may need to be made by officers in highly challenging circumstances, in order to minimise those risks whilst saving saveable life. The LFC recognises that the conduct of emergency evacuation and/or mass rescue in the context of such buildings and fires represent such circumstances.
7. The LFC has a legal obligation to equip and train its firefighters, so far as is reasonably practicable, for what is now a foreseeable risk, as well as an obligation to Londoners to provide a service that will make all reasonable attempts to save lives, including in circumstances as extreme as those experienced on the night of the Grenfell Tower fire

8. The LFC accepts that certain of the measures as set out in this policy which may be adopted in such extreme circumstances will represent increased risk to firefighters. In particular, it is acknowledged that the principle of going above the fire floor donned in Breathing Apparatus but not started up presents increased risk to firefighters. In the continuing absence of a government or nationally agreed position whether through the NFCC or the National FBU, the LFC has identified and will implement additional control measures intended to equip crews to undertake effective action or rescue in such exceptional circumstances where there is saveable life. Those measures include the introduction of new equipment to support the policy and policy specific staff training.

Training and next steps

9. Before this policy is live and used, adequate training and equipment will be provided. Officers require direct briefings in relation to the key changes within the policy and these procedures to be exercised across the Area commands.
10. To date, 10 High Rise training sessions (17 December to 30 January 2020) to Station Commanders and above have been completed regarding the key changes detailed in paragraph 5.
11. Further face to face training will be completed to all station based officers (Stn.O, Sub.O, Lff). This will involve 1,200 staff over approximately 30 briefing sessions. These sessions will be completed by 31 July 2020.
12. This training will be designed following a Training Needs Analysis, which will be informed by a National Operational Guidance (NOG) gap analysis and the Generic Risk Assessment for High Rise buildings.
13. There will be a long term training requirement to be included within DaMOP and incident command training.
14. To ensure adequate control measures are in place for the key procedural changes the provision of smoke blockers will be provided. These are principally designed to protect the stairwell for access and egress, both for firefighting/rescue and evacuation. Additionally, escape hood bags will be provided to enable increased availability of escape hoods inside a building to assist with rescue and evacuation. The training and provision of both these items will be complete before 31 July 2020.
15. Following this adoption date of the 31 July 2020 and the use of the amended policy, assurance measures will be in place including on scene monitoring by the Operational Review Team and assessment through the Performance Review of Command process following incidents.
16. There is ongoing dialogue with the Home Office, NFCC and FBU and any feedback or suggested changes to the policy will be considered.

Finance comments

17. This report recommends that the London Fire Commissioner approves the proposed changes to policy PN633 High Rise Firefighting. The financial impact of providing the associated training and any other costs have not yet been fully quantified. Further work will now be undertaken by Operational Policy and Assurance to confirm these costs and if any additional budgets are required for 2020/21 or future years.

Workforce comments

18. Consultation with RBs has been extensive and detailed within the Background of this report. Changes to PN633 were agreed at an extraordinary BJCHSW on December 20 2019. Agreement was conditional on ongoing monthly review and development between RBs and OPA as new equipment and additional

training is introduced to support the policy. It should be noted that concerns have now been raised by the national and regional FBU.

Legal comments

19. Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner (the "Commissioner") is established as a corporation sole with the Mayor appointing the occupant of that office. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act 2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.
20. Section 1 of the Fire and Rescue Services Act 2004 states that the Commissioner is the fire and rescue authority for Greater London.
21. This report seeks approval for changes to Policy Number 633 (PN633) High Rise Firefighting. The report author has set out the consultations to date with RBs.
22. The statutory basis for the actions proposed in this report is provided by section 7 of the Fire and Rescue Services Act 2004, under which the Commissioner must secure the provision of personnel, services and equipment necessary to efficiently meet all normal requirements for firefighting.
23. Part 4 (Delegation to Officers) of the London Fire Commissioner's Scheme of Governance delegates to Heads of Service the power to approve minor changes to policies and procedures for which they are the designated custodian, but reserves the authority to approve non-minor changes to the LFC. The changes to policy 633 are non-minor and therefore should be approved by the LFC. Any future changes to this policy which are non-minor will require further Commissioner's approval.
24. In approving this policy the Commissioner should comply with:
 - The Human Rights Act 1998 and the European Convention on Human Rights (ECHR). Article 2 ECHR encompasses both negative obligations (which prevent public authorities taking lives) and positive obligations (requiring public authorities to take certain steps to protect lives). Public authorities are expected to take reasonable steps to protect a person's life if they know – or ought to know – that they are facing real and immediate risk. The taking of 'reasonable steps' should not place an impossible or disproportionate burden on the authority. The LFC recognises that meeting the Article 2 obligations in the exceptional circumstances encompassed by this policy is likely to depend upon and require nuanced, informed, and robust decision making. Those decisions may involve consideration of the existence of saveable life and the extent of the risk presented to firefighters in achieving saveable life, and may require the decision maker to assess and strike a balance between the existence and extent of risk to members of the public and to firefighters. Those decisions may have to be taken rapidly and under pressure. Such decisions may properly be subject to scrutiny in subsequent legal proceedings. The LFC in adopting this policy has sought to identify and provide all assistance to those charged with this responsibility to equip them to reach Article 2 compliant decisions, which are capable of withstanding that scrutiny.
 - The Health and Safety at Work etc. Act 1974. Section 2 of the 1974 Act imposes a general duty on the employer to 'ensure, so far as is reasonably practicable, the health, safety and welfare at work of all of his employees.' This general duty extends (amongst other things) to the plant and systems of work, the provision of information, instruction, training and supervision and to the provision and maintenance of a working environment that is, so far as reasonably practicable, without risks to health and adequate as regards facilities and arrangements for welfare at work. Section 3 of the 1974 Act imposes a general duty to 'ensure, so far as is reasonably practicable, that persons not in his employment who may be affected thereby are not thereby exposed to risks to their health or safety.' In the exceptional circumstances encompassed by this policy, the LFC recognises that striking the correct balance between these two general duties is likely to depend upon and require nuanced, informed, and robust decision making. Such decisions may require an assessment to be made as to whether, and

if so to what extent, it is or is not reasonably practicable to expose firefighters to increased risk in order to ensure that all reasonably practicable steps are taken to protect members of the public from risk. Those decisions may have to be taken rapidly and under pressure. Such decisions may properly be subject to scrutiny in subsequent legal proceedings. The LFC in adopting this policy has sought to identify and provide all assistance to those charged with this responsibility to equip them to reach decisions which strike a lawful balance between those competing duties and which are capable of withstanding that scrutiny.

- When carrying out its functions, the Commissioner, as the fire and rescue authority for Greater London, is required to 'have regard to the Fire and Rescue National Framework prepared by the Secretary of State (Fire and Rescue Service Act 2004, section 21).

25. The LFC is also required to have due regard to any relevant national guidance.

26. By direction dated 1 April 2018, the Mayor set out those matters, for which the Commissioner would require the prior approval of either the Mayor or the Deputy Mayor for Fire and Resilience (the "Deputy Mayor").

27. Paragraph 3.1 of Part 3 of that direction requires the Commissioner to consult with the Deputy Mayor as far as practicable in the circumstances before a decision is taken on (inter alia) any "[c] decision that can be reasonably considered to be novel, contentious or repercussive in nature, irrespective of the monetary value of the decision involved (which may be nil)" and this decision should be considered to be repercussive in nature.

Sustainability implications

28. SDIA submitted recommends that the changes to PN633 have a neutral sustainability impact.

Equalities implications

29. The London Fire Commissioner and decision takers are required to comply with the Public Sector Equality Duty (s149 of the Equality Act 2010) when exercising our functions and taking decisions.

30. It is important to note that consideration of the Public Sector Equality Duty is not a one-off task. The duty must be fulfilled before taking a decision, at the time of taking a decision, and after the decision has been taken.

31. The protected characteristics are: Age, Disability, Gender reassignment, Pregnancy and maternity, Marriage and civil partnership (but only in respect of the requirements to have due regard to the need to eliminate discrimination), Race (ethnic or national origins, colour or nationality), Religion or belief (including lack of belief), Sex, and Sexual orientation.

32. The Public Sector Equality Duty requires us, in the exercise of all our functions (i.e. everything we do), to have due regard to the need to:

- a. Eliminate discrimination, harassment and victimisation and other prohibited conduct.
- b. Advance equality of opportunity between people who share a relevant protected characteristic and persons who do not share it.
- c. Foster good relations between people who share a relevant protected characteristic and persons who do not share it.

33. Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to:
34. Remove or minimise disadvantages suffered by persons who share a relevant protected characteristic where those disadvantages are connected to that characteristic;
35. Take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it;
36. Encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.
37. The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities.
38. Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to—
 - a. tackle prejudice, and
 - b. promote understanding.
39. An Equality Impact Assessment (EIA) was undertaken on January 22 2020. The EIA showed a positive impact and also raised areas that require further consideration. These include looking at ways for operational crews to be able to inform and instruct residents of a high rise building in the event of a fire, where English is not their first language. This will include considering the feasibility of using pictogram style messaging and utilising the language skills within our current staff. These will be considered and worked through prior to the policy going live following the training and equipment requirement to be delivered by 31 July 2020. LFB Inclusion team have agreed to support this process. Data analysis regarding the demographic of high rise occupants would assist with the EIA for this policy. This data is not immediately available, but in this same period work will be undertaken to look at the availability of data and its subsequent analysis. This work and the review and amendments to the policy before go live will ensure that the legislative requirements are met.
40. The EIA identified positive impacts. The provisions made in this policy are designed to increase the feasibility of rescue of persons. This increase in feasibility applied to the protected characteristics of age; disability; pregnancy and maternity; race and religion or belief. This was either based on assisting occupants with mobility issues and/or requiring assistance or the soft analysis indicating the likely demographic of a high rise building. There was a neutral impact against other characteristics.
41. Consultation with representative bodies has taken place. Further consultation with Equalities Support Groups and the Inclusion Team will take place as part of ongoing monthly review of the policy.

List of Appendices

Appendix	Title	Protective Marking
1.	High Rise Firefighting Policy	
2.	Sustainable Development Impact Assessment	
3.	Equality Impact Assessment	

High rise firefighting

Official – Ops Security | Official – Health & Safety

New policy number: **633**
Old instruction number:
Issue date: **26 November 2008**
Reviewed as current: **XX XXXX 20XX**
Owner: **Head of Operational Policy and Assurance**
Responsible work team: **Fire and Operational Support**

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1 Introduction

- 1.1 This policy sets out a safe system of work for operational personnel who are engaged in search, rescue and firefighting in high rise buildings. Further information is available via Big Learning.
- 1.2 A high rise building, for the purposes of this policy, may be defined as a building containing floors at such a height or position that external fire fighting and rescue operations may not be feasible. This is not limited to but will always include buildings of 6 floors/18 metres or more.
- 1.3 The term high rise building encompasses a wide variety of structures from conventional tower blocks containing residential flats to very large and complex commercial buildings. Some high rise buildings may be of multiple use (e.g. occupied by a mixture of commercial and residential accommodation) and can contain complex systems which control the building's internal environment, during normal use or during a fire situation.

2 Hazards

- 2.1 Some of the hazards detailed below are specific to high rise buildings; others are more general in nature but are included due to their potential occurrence at high rise incidents and because the characteristics of the building are likely to intensify their effect.
- 2.2 Hazards of high rise firefighting are grouped under four headings:
 - (a) Building height and design
 - (b) Management and use
 - (c) Fire behaviour
 - (d) Firefighting and rescue operations

Building height and design

- 2.3 The height/layout of the building may impact operations due to travel distance for personnel, equipment and water supplies.
- 2.4 Large or complex floor layouts:
 - (a) A lack of information on the internal layout, flat or floor numbering systems can cause confusion and may also increase the risk of firefighters becoming disorientated.
 - (b) The size and layout of some buildings may make it difficult to reliably determine the location, floor of origin and the extent of fire and smoke spread from the access or street level. This can create the potential for firefighters using firefighting lifts to proceed directly onto a floor area involved in fire or mean that resources are deployed to inappropriate locations.
 - (c) The fire service access level may not be the recognised ground floor level of the building or the same access point used by the public.
- 2.5 Access for firefighters may be delayed due to security arrangements, such as coded entry systems, security grilles and multi-lock door systems. Progress may be inhibited more than once as devices are encountered at a number of points along the route to a fire.
- 2.6 High rise buildings may have a range of fixed installations and fire engineered solutions installed to assist in a safe and timely intervention by the fire service. If the building has been subject to poor standards of installation, poor management or vandalism, these systems may not perform as designed, which can increase risk to occupants, firefighters and other emergency service personnel in the event of a fire.

- 2.7 Some buildings may contain single dwellings that are spread over two or more floors. This means access from the front door may be up or down, and that firefighters may exit the dwelling on a different level to the initial access point. This can lead to disorientation and may effect the decision about where to site the bridgehead.
- 2.8 Objects falling from height. These can be a risk to anyone entering or exiting the building and can damage hose lines. Debris can be ejected explosively and building materials such as glass and curtain walling can 'plane' some distance from the building.
- 2.9 Falling from height due to the failure of external walls, panels or windows.
- 2.10 Difficulty with lines of communication and radio reception. The scene of operations may be a considerable distance from the point of access and/or command. Communication dead spots may exist within the building.
- 2.11 Entanglement in electrical cabling that has been displaced from surface mounted cable trunking, fixings or failure of false ceilings.
- 2.12 When any high rise building is under construction or refurbishment, facilities such as firefighting shafts, rising mains and active/passive fire safety measures may be incomplete or absent. This may also create a risk of a more rapid fire or smoke spread, collapse and spread of smoke/fire to adjacent buildings.
- 2.13 Failure of firefighting lift equipment or use of non-designated lifts can lead to firefighters and/or evacuees becoming trapped in a lift car. Either the lift, its shaft and/or machine room may be effected by the spread of smoke, fire, heat and water ingress from firefighting operations.
- 2.14 Failure of compartmentation:
 - (a) Original doors may have been replaced with types which do not necessarily offer the required level of fire protection. This may lead to a failure of compartmentation and create more rapid fire spread or, conversely, hinder access where additional security is encountered.
 - (b) The introduction of some modern materials and services, such as cable television, replacement double glazing or combustible cladding arrangements, may compromise existing fire safety measures or compartments. This may cause unpredictable or unexpected spread of fire or smoke.
- 2.15 External cladding is a non-structural material or assembly used to cover structural surfaces on the outside of the building and spandrel panels. They can be used for aesthetic reasons, for insulation or to provide protection from the elements. If external cladding becomes involved in a fire experience has shown that, in spite of regulation, a risk of rapid and catastrophic external fire spread remains. Cladding systems can also create voids and cavities which can contribute to the spread of fire and smoke, this may not be initially obvious. Fires travelling within the cavity between the cladding and the building can be difficult to extinguish.
- 2.16 Fire loading on balconies and the material from which the balconies are constructed may cause fire to spread through and across the building.
- 2.17 Some buildings may be completed in phases, in these cases there may be partial occupancy and people other than construction workers requiring rescue.
- 2.18 Supplies of firefighting water in high-rise buildings may be limited by the capacity of dry or wet rising mains (see Appendices 3 & 4).

Management and use

- 2.19 Poor management and the storage of combustible materials in escape routes may impede evacuation and hinder the progress of firefighting personnel, while promoting fire development.
- 2.20 Although the building may be complete, occupied and fully operational, certain aspects of the building's safety features may be disarmed or isolated for testing, repair or refurbishment i.e. sprinkler systems, fire alarms, rising mains etc.
- 2.21 High rise buildings offer additional non-residential service rooms such as storage areas, lift motor rooms and electrical intake rooms which may be illegally accessed for illegitimate purposes, such as drug manufacture, pirate radio station studios or inappropriate sleeping accommodation.
- 2.22 In a multiple use high rise building there may be a mix of evacuation or "stay put" strategies depending on which part of the building is involved. This is often the case in mixed use buildings which are part commercial or part community-use and part residential. This may result in difficulty identifying whether persons have evacuated, need evacuating or require rescue. Additionally, occupants may not be aware of a building's evacuation strategy, leading them to behave differently to the responsible person's fire risk assessment and the IC's expectations.

Fire behaviour

- 2.23 Fire and smoke spread in a high rise incident can be very unpredictable. Fire and smoke may spread rapidly in an upward, downward and/or horizontal direction. It can spread to remote locations not obviously connected to the seat of the fire and compromise escape routes. The following factors can contribute to fire and smoke spread:
 - (a) Failure of compartmentation both internal and externally.
 - (b) Air currents moving up and down the external and internal areas of a high rise building. This may lead to smoke in the building being drawn downwards.
 - (c) Wind speeds are likely to increase with the height of a building and be affected by the position of nearby buildings.
 - (d) A 'blow torch' type effect can be created by an over pressure within the fire compartment and/or by external wind forcing the products of combustion from the compartment, sometimes in unpredictable directions. This is sometimes known as a 'wind driven fire'.
 - (e) The opening of doors, windows or emergency exits may create a flow path for products of combustion leading to a rapid, unexpected increases in temperature and/or fire and smoke spread.
 - (f) Burning material either falling from upper floors or carried aloft by buoyant smoke can also ignite combustible materials through open windows, on balconies and around the base of the building.
 - (g) Staircases in high rise buildings have the potential to act as a chimney allowing the products of combustion to rise or fall.
 - (h) Inappropriate activation or failure of Heating, Ventilation Air Conditioning (HVAC) systems may inhibit the safe removal of smoke from the building or conversely move smoke into previously unaffected areas.
- 2.24 Fires may be encountered on more than one floor as a result of the factors identified above or by acts of deliberate fire setting. In extreme circumstances this can lead to a fire affecting the full height of the building.

Firefighting and rescue operations

- 2.25 Firefighting equipment in staircases and other parts of the building may create obstructions for firefighters and those evacuating the building. This hazard will be intensified in buildings which have a single staircase.
- 2.26 Operations may breach compartmentation. For example, it may be necessary to run hose lines into protected routes, staircases and through fire doors. This may cause smoke and hot gases escaping the fire compartment to enter previously unaffected areas. This may present a hazard to occupants in the common areas and may also impact personnel at the bridgehead.
- 2.27 The way in which the building evacuation is conducted may adversely impact on the evacuation itself and/or firefighting and rescue operations.
- 2.28 If the building's evacuation plan includes use of lifts by residents, this may affect the ability to move firefighting resources to upper floors.
- 2.29 The intensity of work rate required in relation to firefighting in a high rise fire can lead to an increase in the core body temperature of firefighters. In addition, access to the fire may be limited to a single route, so teams entering the premises may have little or no option to avoid hostile conditions.
- 2.30 There are public expectations that firefighters will attend incidents and that personnel will put themselves at risk to save lives. This can lead to pressure to act immediately, even if no safe system of work is possible with the resources available at the time.

3 Planning

- 3.1 Operational information should be gathered and recorded in accordance with [Policy number 800](#) - Management of operational risk information.

4 Operational procedure

On arrival and information gathering

- 4.1 Unless an RVP or split attendance has been identified during planning, which should be recorded on the ORD, attendance should be made at the main entrance of the premises.
- 4.2 The siting of appliances that form the PDA should take into account:
 - (a) Access for aerials and other specialist appliances.
 - (b) Other agencies such as the London Ambulance Service (LAS) or Metropolitan Police Service (MPS).
 - (c) The potential danger of objects falling from height and fire spread.
- 4.3 The IC should remain at access/street level unless planning arrangements have identified a more appropriate location. This should be recorded on the ORD.
- 4.4 To begin to establish effective situational awareness, the IC should gather available relevant information from sources such as:
 - (a) Any 'responsible person' present or building occupants.
 - (b) Fire alarm or ventilation control panels.
 - (c) Building plans. If necessary it may be possible to create plans drawn from the floor layout of unaffected floors, where the floor layout is consistent throughout the building.

- (d) Premises information plate or ePIP.
 - (e) Signage.
 - (f) Mobile Data Terminals (MDT).
 - (g) Identifying which floor(s) the incident is located on in order to determine where the bridgehead should be sited.
 - (h) CCTV.
 - (i) The location and status of any fire control, fire engineering and/or fixed installation systems.
- 4.5 The IC should ensure that a 360° visual inspection is carried out utilising a thermal image camera (T.I.C) to help identify:
- (a) Internal and external fire conditions paying particular attention to the location of the fire and any unusual or rapid fire spread.
 - (b) Immediate rescues.
 - (c) External building features i.e. additional staircase, balconies etc.
 - (d) Alternative access points.
 - (e) Siting opportunities for aerials etc.
- 4.6 The IC should also give early consideration to the following points:
- (a) Whether additional resources are required to support operations.
 - (b) Is there potential to attack the fire externally (if vented) with solid core or coned down jets.
 - (c) Is there a need to lay out jets, deploy ground monitors and aerial appliances to prevent external fire spread or to control fires caused by falling debris.
 - (d) If occupants are evacuating or if a simultaneous evacuation is in progress, will this hinder firefighting activities and will our actions compromise their safety in stairwells, lobbies or corridors.
 - (e) Is there rapid fire spread, do efforts need to be diverted from firefighting activities and directed towards assisting the emergency evacuation of residents. (See section 5 - Emergency evacuation and mass rescue)
 - (f) If the premises has more than one staircase, the need to establish, if appropriate, separate attack and evacuation stairwells. If this tactic is employed, personnel assigned to assist evacuation should use the stairwell that has been nominated by the IC as the evacuation stairwell.
 - (g) Recognising the effect of wind, noting this may be amplified and made more unpredictable by factors such as the building's height and its proximity to nearby tall buildings.

Securing water supplies for firefighting

- 4.7 The hydrant supply and deliveries from the pump to the dry rising main (DRM) must be twinned and charged using 70mm hose.
- 4.8 Pump operators should monitor their flow gauges while charging the riser and before firefighting has commenced. High flow rates or difficulty in achieving 10 bar pressure before firefighting has commenced can indicate that rising main landing valves may be damaged or open.

- 4.9 If falling debris poses a risk to hose lines going into the building, consideration should be given to protecting this hose with hose ramps or finding an alternative route outside the area where the debris is falling. Care should be taken to not create additional hazards by covering hose.
- 4.10 Effective communication between BA teams, the bridgehead, the IC and the pump operator are necessary to ensure best use is made of the available water supply.
- 4.11 Buildings over 60m (50m from 2006) may be fitted with wet rising mains (WRM). These may need to be augmented at protracted incidents.
- 4.12 **Appendices 3 & 4** contain more information on dry and wet rising mains.

Securing the firefighting lift/s and non firefighting lifts

- 4.13 Where the height and location of the incident makes the use of a lift beneficial, the firefighting lift should be identified and, as soon as resources allow, a firefighter detailed to take control of and remain with the lift. The IC should also be aware that some lifts may not access all floors of the building.
- 4.14 Only designated firefighting or fireman's lifts are to be used during an operational incident and other lifts should not be used for firefighting operations. It should also be noted that some older style fireman's lifts may not have the same capabilities as modern firefighting lifts.
- 4.15 See **Appendix 2** for further information regarding firefighting and fireman's lifts.
- 4.16 Teams should exit the firefighting lift at least two floors below the floor where the fire is reported or believed to be unless the IC's plan dictates otherwise. This is to ensure that the risk of firefighters becoming unintentionally involved in the fire is minimised.
- 4.17 If the location of the fire is not known with a reasonable level of certainty, personnel should approach the believed or likely location of the incident with caution, using a protected staircase. Where possible, floor plans should be obtained to assist in the identification of a safe route to the incident.
- 4.18 The firefighting lift should remain at the bridgehead so that rescued persons can be quickly brought to ground floor level.
- 4.19 In the event that the firefighting lift is not available, consideration should be given to:
 - (a) The resource implications for teams accessing and carrying equipment to the bridgehead.
 - (b) The use of aerial appliances to transport equipment to the bridgehead (if the building design makes this a viable option).
 - (c) Additional resources to enable safe manual handling of casualties down stairways to the point where they can be passed to the care of the ambulance service.
- 4.20 Firefighters should be mindful that any failure of firefighting lift equipment or use of non-designated lifts can lead to firefighters and/or evacuees becoming trapped in a lift car. Either the lift, its shaft and/or machine room may be effected by the spread of smoke, fire, heat and water ingress from firefighting operations.
- 4.21 The IC should consider securing all non firefighting/fireman's lifts to assist controlling the movement of people throughout the building.

Establishing a bridgehead and fire sector

- 4.22 Sectorisation of high rise incidents should be in accordance with [Policy number 434](#) - Sectorisation at incidents.

- 4.23 The rank of the Sector Commander Fire should be commensurate with the scale and complexity of the incident and be a minimum of Leading Firefighter. The Sector Commander Fire will be responsible for establishing a bridgehead and committing teams to carry out any tasks beyond the bridgehead in line with the IC's plan.
- 4.24 The bridgehead should be located two floors below the fire floor unless planning arrangements or the specific design features of the building allows for safe air to be reliably maintained in a position which is closer to the fire. Examples of this might include high rise buildings where flats are accessed from open air balconies or where there are multiple fire doors maintaining compartmentation between the flats and the protected stairwell.
- 4.25 Use of the F.I.R.E. system will help ensure that at the early stages of an incident, the correct personnel and equipment are available to implement safe systems of work. See – **Appendix 7** for detail on the F.I.R.E. System.
- 4.26 If there is potential for congestion at the bridgehead, a staging area below the bridgehead may be required for additional resources.
- 4.27 If worsening conditions or fire spread at or below the bridgehead require it to be repositioned, the following should be done:
- (a) The BA teams, IC and all officers must be informed of any decision to re-locate the bridgehead.
 - (b) All BA teams must be informed to ensure they monitor their air supply and take the new distance into account when assessing their turn around pressure.
 - (c) As relocation will increase the travel distance for BA teams, consideration must be given to the immediate withdrawal of BA teams. Any decision to withdraw BA teams must be balanced against the urgency and importance of the task(s) they are performing.
 - (d) If it is decided not to withdraw the BA teams, teams should acknowledge receipt of the message regarding the bridgehead's new location. If no acknowledgement of the relocation message is received then the ECO should instigate a withdrawal of that team via the BA entry control board (ECB).
 - (e) All information and resources should be transferred to the new bridgehead location.
 - (f) If the bridgehead is moved a message should be sent to control to inform them of the relocation.
- 4.28 If available, the provision of a Gas Detection Monitor (GDM) at the bridgehead can be used for monitoring air conditions. ICs must consider requesting FRUs for gas detection equipment.

Committing teams

- 4.29 All specific briefing of teams should take place at the bridgehead once the decision has been made by the IC to commit teams to operations above the bridgehead.
- 4.30 No personnel should proceed beyond the bridgehead without the Sector Commander Fire's authorisation.
- 4.31 The initial BA team's charged branch should be supplied from the floor below the fire floor unless a risk assessment shows it is safe to set in on the fire floor.
- 4.32 This assessment can be conducted by looking at the layout of unaffected floors beneath the fire floor to establish the compartmentation of the lobby, protected stairwell and location of the rising main in relation to the fire compartment.

- 4.33 The rising main outlet on the fire floor should only be used if teams can control the doors between them and the suspected location of the fire. As a rough guide this will mean a minimum of two fire doors separation between the rising main and the fire compartment.
- 4.34 If the nature and location of the fire cannot be determined in any other way (i.e. external signs, witness accounts) then, if it is safe to do so, the sector commander fire and entry control operative may proceed to the fire floor while the bridgehead is being set up to gather information for the IC's situational awareness, taking into account the following control measures:
- (a) They proceed only for as long as there are no signs of fire, and return immediately to the bridgehead when signs of fire are observed.
 - (b) They only proceed on the IC's instructions.
 - (c) They maintain radio contact with the IC.
 - (d) The IC has appointed safety officers observing the external faces of the building for signs of fire and they return to the bridgehead immediately if this safety officer reports signs of fire.
 - (e) They use a thermal image camera to look for signs of fire.
 - (f) They maintain a two fire door separation between themselves and the reported compartment on fire (as described in paragraph 4.33).
- 4.35 The Sector Commander Fire must also be mindful of the risks of being pressured into action before sufficient resources are available to mount an effective attack on the fire.
- 4.36 The Sector Commander Fire should recognise that any delay in committing teams can increase the likelihood of fire growth and fire spread occurring. In spite of this pressure, teams must only be committed when a safe system of work has been implemented. Teams should not delay their preparations at the bridgehead while information is being gathered.
- 4.37 The Sector Commander Fire should inform the IC that BA teams have been committed.
- 4.38 An additional BA team with a second jet must be provided as soon as possible, in order to protect and support personnel involved in rescue/firefighting operations. BA teams must not be committed to the fire compartment without a back-up team being available unless:
- (a) There is an immediate risk to life, or
 - (b) There is an immediate risk of serious escalation of the incident if action is not taken.
- 4.39 The second jet can be supplied from the rising main outlet on the fire floor (or the additional dividing breaching outlet if this has been used) or the next appropriate floor and must be of sufficient length to reach the furthest point that the initial firefighting team can reach.
- 4.40 If signs, symptoms or conditions that may lead to backdraught, flashover or other abnormal fire development are present, a second jet and BA team must be present before the initial firefighting team are committed into the fire compartment.
- 4.41 Hose lines should be laid and charged in an area unaffected by fire or smoke and behind the safety afforded by a fire resistant structure or fire resisting door(s).
- 4.42 Hose lines should be fully charged before entering any doorway to prevent them passing under a door, which could subsequently cause a flow restriction or the door to become an obstruction when the jet is charged.
- 4.43 If pump operators report gauge readings that indicate that dry rising main outlets above the fire floor may be open, or there are other signs that this is the case, the IC may consider committing a

team above the bridgehead without BA or extinguishing media for the specific task of closing DRM outlets. The following control measures must be applied:

- (a) There are no signs of failure of the building's compartmentation.
- (b) There are no signs of the failure of the building's fire safety systems.
- (c) Radio communications are maintained with the bridgehead.
- (d) The stairwell is clear of smoke.
- (e) They use a TIC to survey each floor for signs of fire before proceeding to check the DRM outlet.

4.44 If the area above the bridgehead may become affected by products of combustion, this team must be in BA.

4.45 If smoke is reported on the stairwell above or below the fire floor, BA teams may be committed above the fire floor without extinguishing media to determine the status of fire doors and ventilation openings, to open or close doors on the IC's instructions and to determine the effectiveness of any ventilation systems present. The following control measures must be implemented:

- (a) The teams are committed for this specific task.
- (b) Safety officers have been established to monitor the exterior of the building and can update these teams directly by radio on changing external conditions.
- (c) The teams use thermal image cameras to monitor heat conditions around them.
- (d) Teams withdraw to the bridgehead if radio communications is lost.
- (e) Teams withdraw to the bridgehead if telemetry signal is lost.

4.46 If resources allow GDM's should be provided to monitor air conditions.

Search and rescue

4.47 The IC should nominate a Sector Commander Search at the earliest available opportunity. It is good practice for the Sector Commander Search to nominate a Search Coordinator early in an incident to support a systematic and thorough process. See [Policy number 803](#) – Search and rescue procedures within structures.

Fire Survival Guidance

4.48 Incidents in high rise buildings can lead to fire survival guidance (FSG) calls being received by Brigade Control. All FSG calls should be managed in accordance with [Policy number 790](#) Fire Survival Guidance calls.

Safety officers

4.49 The IC should appoint Safety Officers as soon as practicable as per [Policy number 162](#) Officer Responsibilities at incidents.

4.50 The IC should must deploy safety officers as dedicated external spotters to monitor the following:

- (a) Fire conditions including:
 - (i) External breaching of compartmentation.
 - (ii) Rapid, unusual or abnormal fire spread.

- (b) Any rescues required.
 - (c) Structural integrity of the building.
 - (d) Falling debris.
- 4.51 External safety officers are a key element of this safe system of work and should provide the IC with regular updates and communicate directly with BA teams to inform them of any changes in the ventilation profile and/or fire dynamics which may affect internal conditions. The following activities must not commence without external safety officers in place:
- (a) Information gathering on the fire floor.
 - (b) Teams committed above the fire floor to close DRM outlets.
 - (c) Teams committed above the fire floor to check on stairwell ventilation.
 - (d) BA teams committed to the fire compartment.

Safety cordon

- 4.52 ICs should consider the implementation of an appropriate sized hazard zone cordon.
- 4.53 The size and shape of this cordon should take into account wind conditions, the size, height and construction of the building, as this will affect the footprint in which debris and other items may fall, smoke may be blown and convected heat directed.
- 4.54 As part of cordon arrangements, it may be necessary to designate and take steps to maintain 'safe routes' of access and egress into the building.

Communication difficulties

- 4.55 Where appropriate and available the IC should consider the use of alternative radio channels to manage the volume of radio traffic or, where there are communication difficulties, other equipment, such as radio repeaters, leaky feeders and hand-held digital main scheme radios (see [Policy number 488](#) - Incident communications).

Messages

- 4.56 When attending a high rise incident, the IC will have to gather sufficient information to carry out a risk assessment and implement the appropriate safe systems of work. The implementation of high rise procedure should be reflected in an informative message to Brigade Control as soon as possible. If sent in isolation, the full details of the incident (e.g. dimensions, area involved) do not need to be sent. See [Policy number 518](#) – Messages from incidents.

Example:

"From at; high rise procedure implemented, tactical mode Oscar"

- 4.57 The above message indicates that a risk assessment has been carried out, and that a safe system of work has been implemented. This message can only be sent where the following minimum systems of work have been implemented:
- (a) The location of the bridgehead has been risk assessed as appropriate for the incident.
 - (b) Access and egress to and from the bridgehead is secured and maintained.
 - (c) The bridgehead is established and a charged jet is ready for deployment.

Ventilation

- 4.58 Ventilation should only be undertaken on instruction of the IC and in accordance with [Policy number 883](#) Tactical ventilation.

Building design and fire safety measures

- 4.59 A Senior Fire Safety Officer (SFSO) will be informed of all four pump fires, will attend all five pump fires and above and can be requested whenever specialist advice is required by the IC.
- 4.60 Every high rise building has been designed with systems to help keep stairwells and escape routes clear from the products of combustion.
- 4.61 Building regulations require all buildings over 6 floors/18m high to make provisions for firefighting and firefighter access. The basic facilities provided within these buildings should include:
- (a) Firefighting shaft.
 - (b) Dry/wet rising mains (DRM or WRM).
 - (c) Firefighting lift.
 - (d) Ventilated lobby or corridor.
- 4.62 Firefighting shafts including fire mains (but not firefighting lifts) may also be found in certain building types with a floor exceeding 900 ^m² and heights exceeding 7.5m. In addition to those within firefighting shafts, fire mains may also be located in other staircases and/or corridors within a high rise building.
- 4.63 Automatic fire suppression systems may also be found in high rise buildings. The installation of sprinkler systems may indicate that there are larger compartment areas with significant fire loadings present.
- 4.64 Automatic fire curtain systems may be present in a variety of configurations and orientations. If the building has an automatic fire curtain system installed, the IC should ensure teams are suitably briefed on their location(s) and the risk they can pose to safe egress from the building, should they operate whilst a team is committed in the compartment where they are installed.
- 4.65 Additional information on firefighting facilities and fixed installations is provided in **Appendices 1 – 5**.
- 4.66 Where there is a known elevated risk at high rise buildings with combustible cladding materials, a review of the risks may result in a move away from a "stay put" strategy to a simultaneous evacuation. If "stay put" is not supported then a range of mitigating measures should also be in place. These might include a waking watch and a communal alarm in order to safely alert and evacuate the residents of the building. For more detail see **appendix 8**.

5 Emergency evacuation and mass rescue

- 5.1 At the majority of high rise incidents the LFB attends, traditional high rise firefighting tactics will be effective. However there have been circumstances when that high rise buildings have failed to behave as they are designed, and where the level of risk to both residents and firefighters has been substantially increased. This kind of incident is, by its very nature, difficult to predict and equally difficult to manage.

Definitions

- 5.2 For LFB operations to be effective, it is important that all personnel have a consistent and clear understanding of the terms 'evacuation', 'emergency evacuation', 'rescue' and 'mass rescue'. These definitions are detailed below:
- 5.3 **Evacuation** – Is the immediate movement of people away from actual or potential danger towards a place of relative safety, normally supported by a pre-determined plan/strategy.
- 5.4 **Emergency Evacuation** – Is the immediate and unplanned movement of people, supported by LFB personnel or other emergency responders (using whatever means of communication are available to them), away from actual or potential danger towards a place of relative safety, in circumstances where:
- The planned evacuation strategy has not been implemented for whatever reason and the IC decides that an evacuation is necessary
 - A planned evacuation strategy does not exist for the hazard zone and the IC decides that an evacuation is necessary
 - It is determined that the planned evacuation strategy implemented is no longer tenable and/or is not working effectively
 - The means of escape in the hazard area have been compromised by the rapid escalation of the incident, for example; rapid fire development or smoke travel making it untenable for people to remain in the hazard area
- 5.5 **Rescue** – Is the act of helping a person(s) who are threatened with immediate harm and require assistance to move away from danger towards a place of relative safety. A rescue can be undertaken by anyone.
- 5.6 **Mass Rescue** – Is the act of helping a large number of people that are threatened with immediate harm and who require assistance to move away from the danger towards a place of relative safety. This will be in circumstances where it is necessary to:
- Deploy a large number of LFB personnel and/or other responders into the hazard area, possibly to undertake simultaneous multiple rescues.
 - Declare a major incident
- 5.7 Emergency evacuation and mass rescue may need to be undertaken at the same time and at the same incident.

When to implement an emergency evacuation and/or mass rescue

- 5.8 The decision to implement an emergency evacuation and/or mass rescue plan is a difficult one. Committing firefighters above a fire is an inherently dangerous activity. Committing members of the public to a full or partial evacuation of a building not designed to be evacuated is also an inherently dangerous activity which is largely untested and the risks of which are not well understood. For this reason emergency evacuation or mass rescue should only be implemented if the IC believes that not doing so would lead to the loss of life.
- 5.9 The timing of any decision to implement an emergency evacuation and/or mass rescue plan is also important. The earlier the decision to implement emergency evacuation and/or mass rescue the lower the risks and the greater likelihood of success .
- 5.10 The IC must consider emergency evacuation or mass rescue if any of the following are observed:

- (a) A fire and/or products of combustion quickly spreading from one compartment to another internally.
- (b) A fire breaking out of the compartment externally.
- (c) A fire and/or products of combustion spreading rapidly across multiple floors internally or externally.
- (d) Fire in external cladding.
- (e) Fire fighting activities have reached the limitations of the rising main i.e. three working jets.
- (f) Fire and/or products of combustion spread to locations within the building remote from the original fire.
- (g) Multiple fire survival guidance (FSG) calls being received.
- (h) FSG calls being received from locations remote from the original fire.
- (i) Reports of deteriorating conditions internally.
- (j) Large numbers of people evacuating from the building involved.

This list is not exhaustive and other signs of the potential catastrophic failure of compartmentation may be observed.

These signs and symptoms may occur at incidents that do not require an emergency evacuation or mass rescue, they may occur in isolation or in combination, but their presence should alert ICS to the need to consider emergency evacuation or mass rescue.

How to implement an emergency evacuation and/or mass rescue

- 5.11 When the decision is made to implement an emergency evacuation and/or mass rescue the development of a tactical plan for the emergency evacuation and/or mass rescue must be informed by a risk assessment. See [Policy number 342](#) Dynamic risk assessment. Tactics that commit firefighters to the risks of operations above the fire floor without extinguishing media must be robust, proportionate and carefully considered.
- 5.12 If the decision to implement an emergency evacuation and/or mass rescue is made the IC should immediately notify Control, giving the extent of the emergency evacuation and setting out what advice Control should give to callers.
- 5.13 The IC may want to consider advice to callers including:
 - (a) Use of fire escape hoods.
 - (b) Firefighting/evacuation/rescue activity currently taking place elsewhere in the building.
- 5.14 If a mass rescue plan is implemented then the IC must declare a 'Major Incident', See [Policy Number 263](#) Major Incident Procedure, and send a METHANE message as soon as practically possible.
- 5.15 Any incident where emergency evacuation and/or mass rescue is implemented is likely to be resource intensive. ICs must anticipate this and make up accordingly.
- 5.16 The speed and extent at which an incident is escalating will dictate the urgency of the emergency evacuation and mass rescue plan. The IC will need to consider the safest and most effective way to warn and inform the residents that they need to escape from the building. This could include for example:
 - (a) Use of megaphones.

- (b) Use of intercoms or door entry systems.
- (c) Use of public address systems.
- (d) Use of fire alarms.
- (e) Use of building evacuation systems.
- (f) Use of LFB drone public address capability.
- (g) Use of the NPAS helicopter public address capability.
- (h) Use of the media and social media via LFB press office.
- (i) Internal telephones.
- (j) Systematic loud door knocking.
- (k) Forcing of doors to flats.

Committing firefighters to knocking on doors and/or forcing entry are higher risk activities but are likely to be safer and more effective the earlier in the incident they are commenced. (See section headed "Managing increased risk")

- 5.17 It may be necessary to begin emergency evacuation and mass rescue operations with minimal teams. The IC will need to decide which communications methods they use against the level of risk this exposes their teams to and the speed at which they anticipate they will need to clear the building.
- 5.18 The IC's evacuation plan must consider:
 - (a) The risks to residents of flats closest to the fire.
 - (b) The risks to residents of flats furthest from safety (e.g. at the highest points of the building).
 - (c) Whether time and resources allow forcing entry to flats from which there is no answer.
 - (d) Residents who may require additional assistance to evacuate.
 - (d) The need for a systematic approach and record keeping.
- 5.19 Teams conducting door knocking will need to be briefed on the time spent at each door considering the need to alert the entire building's occupants and the time available.
- 5.20 It is important to note where flats have been cleared. This can be achieved using the door marker crayon and door marker tags in the FIRE bag and recorded on a Forward Information Board.
- 5.21 When deciding whether or not to force doors to any flat the IC should consider the potential breach of compartmentation and the effects this may have on the entire building.

How to manage increased risk

- 5.22 In order to conduct an emergency evacuation and/or mass rescue it is highly likely that teams will be placed at a greater level of risk than is normally tolerated at a high rise incident. For example, in order to conduct systematic door knocking teams are likely to be required to work above the fire without extinguishing media. The following section will support the IC's risk assessment process.
- 5.23 ICs should only undertake higher risk activities if the benefits are proportionate, e.g. saveable life
- 5.24 Teams committed above the bridgehead should adopt normal BA procedures and attempt to complete the tasks assigned to them inside the working duration of their BA set.

- 5.25 Where resources and the capacity of the rising main allow, teams with fire fighting jets should be strategically positioned to protect the escape routes of teams committed above the bridgehead without extinguishing media. The locations of these teams should take into account the need to keep doors on to escape routes closed as far as possible. The incident commander must consider the priority of protecting the escape routes against the priority of fighting fire.
- 5.26 Additional control measures for teams working above the bridgehead in BA but without extinguishing media must include:
- (a) Immediate withdrawal to the bridgehead in the event of the loss radio communication and of telemetry signal.
 - (b) Immediate withdrawal to the bridgehead in the event of loss of communications with safety officers observing the external faces of the building.
 - (c) Stairwell safety officers.
- 5.27 There may be a risk of catastrophic failure of compartmentation in a building where the furthest parts of the building from the bridgehead cannot be successfully reached within the working duration of a BA set.
- 5.28 In this case, the IC may commit teams beyond the bridgehead wearing BA sets that have not been started up. This is an extremely high risk activity which must only be implemented when the benefits are proportionate and the following control measures are put in place in addition to the control measures for BA teams above the bridgehead with their sets started up.
- (a) Teams must be committed through entry control wearing BA not started up and not under air.
 - (b) Their tally must be inserted into the BA entry control board and telemetry between the BA set and entry control board established. This will display to the ECO the time elapsed since the team were committed and give an indication of when/if they go under air by changing to a time of whistle display.
- 5.29 Teams committed through entry control wearing BA not started up and not under air should not force entry into flats unless they are confident that there is no fire spread into these flats.
- 5.30 A dedicated entry control board for any teams working above the bridgehead, in BA but not started up should be established.
- 5.31 If team objectives can be achieved under air then this procedure should not be adopted.
- 5.32 In these circumstances the individual's BA set is provided to ensure that if conditions deteriorate and the atmosphere in the stairwell becomes irrespirable, they will be able to make their own way to safety.
- 5.33 For this reason teams wearing BA, but not under air must go under air as soon as unsafe respiratory conditions are detected or suspected and inform the Sector Commander Fire and ECO.
- 5.34 Team members should check each other to ensure that BA is being worn correctly.
- 5.35 Stairwell safety officers protecting teams working in BA sets that are not started up will follow the same procedure.
- 5.36 The viability of their exit routes should be constantly monitored by stairwell safety officers, officers at the bridgehead and officers in the lobby sector.

- 5.37 As soon as it is suspected that egress routes may become compromised to such a degree that teams might not be able to exit, teams are to immediately cease their actions and relocate to the bridgehead or a point of safety.

Stairwell safety officers

- 5.38 Firefighters committed above the bridgehead without extinguishing media are at significant risk of harm from deteriorating fire conditions below them. In order to protect them the IC must deploy teams to:
- (a) Monitor the temperature in the stairwell and around lobby access doors with thermal image cameras and instigate an immediate evacuation of all LFB personnel above the bridgehead if indications of a sudden or significant rise in temperature are observed.
 - (b) Report on fire/smoke conditions and ventilation of the escape route/s to the Sector Commander Fire.
 - (c) Update both teams and the bridgehead on conditions to enable teams working above the bridgehead to be informed of any deterioration in conditions.
- And also to:
- (d) Provide advice and support to residents and members of the public within the stairwell.
 - (e) Monitor conditions within the stairwell and provide residents with fire escape hoods if conditions dictate.
- 5.39 Teams committed to protect the stairwell should comprise of a minimum of two and where resources allow, be led by a Leading Firefighter. Each team should have a GDM to monitor safe air conditions

6 Review and trade union consultation

- 6.1 This policy will be held under monthly review by the LFB and Fire Brigades Union (FBU).
- 6.2 Other triggers for review include:
- (a) The introduction and retro-fitting of evacuation alarms in high-rise residential buildings
 - (b) The retro-fitting of sprinklers in high-rise residential buildings.
 - (c) The outcomes of any national or regional research into the practicality of evacuating high-rise residential buildings built to support a Stay Put strategy.
 - (d) Legislation requiring landlords to devise evacuation plans for high-rise residential buildings built to support a Stay Put strategy.
 - (e) Legislation requiring landlords to provide personal emergency evacuation plans (PEEPs) for residents needing additional help to evacuate their home.
 - (f) The introduction of personal gas detection equipment into the LFB.
 - (g) The introduction of smoke curtains/blockers into the LFB.

7 References

7.1 The following policies are relevant to and should be read in conjunction with this policy:

- [Policy number 47](#) - Sprinklers and drenchers
- [Policy number 162](#) - Officer Responsibilities at incidents.
- [Policy Number 263](#) - Major Incident Procedure
- [Policy number 342](#) - Dynamic risk assessment
- [Policy number 412](#) - Mobilising Policy
- [Policy number 434](#) - Sectorisation at incidents
- [Policy number 466](#) - Respiratory protective equipment - breathing apparatus – operational procedures
- [Policy number 488](#) - Incident communications
- [Policy number 513](#) - Premises information box systems
- [Policy number 518](#) - Messages from incidents
- [Policy number 790](#) - Fire survival guidance calls
- [Policy number 800](#) - Management of operational risk information
- [Policy number 803](#) - Search and rescue procedures within structures
- [Policy number 829](#) - Hoarding
- [Policy number 872](#) - Operational professionalism at emergency incidents
- [Policy number 883](#) - Tactical ventilation
- [Policy number 907](#) - F.I.R.E Bag - technical information

Appendix 1 - Firefighting shafts

- 1 Firefighting shafts are a means of enabling firefighters to reach a point within a building in a position of relative safety from which to commence their firefighting and rescue operations.
- 2 The detailed recommendations on the provision of firefighting shafts within buildings are contained within BS 9999 and Approved Document B (Building regulations). In brief a firefighting shaft will contain a firefighting stair, a firefighting lobby with a dry or wet fire main and a firefighting lift. There will always be a provision to ventilate a firefighting shaft either mechanically or manually. In large complexes with a variety of uses, firefighting shafts may serve separate parts of the complex. For example, in a complex consisting of high rise offices over a shopping centre, the offices may be provided with a dedicated firefighting shaft that does not serve the shopping centre.

Appendix 2 - Firefighting and Fireman's lifts

- 1 Firefighting lifts are provided in high-rise buildings to enable firefighters and their equipment to reach the upper floors speedily and without undue fatigue. Firefighting lifts are dedicated lifts that have a special electrical circuit and a fire control switch at the fire brigade access level (usually at ground floor). Wherever possible a firefighting lift is not smaller than an eight person lift and will carry a load of up to 850kg. The electrical supply to the lift is independent of the other circuits in the building.
- 2 The term "fireman's lift" describes a normal lift, in which is fitted a "fireman's switch" at ground floor or at fire-fighter access level is used to override the normal lift controls. These were normally installed in buildings prior to or around the 1980s. As with a normal lift it will not have all the structural protection, protected services, duplicate power services, functionality, or overall resilience that a more modern standard BS EN 81-72: 2003/2015, BS 5588 Part 5 or BS 9999 fire-fighting lift will have.
- 3 The term "Firefighting lift" describes a lift installed to BS EN 81-72: 2003/2015, BS 5588 part 5 or BS 9999, and is a lift fitted with additional protection, functions, and controls that enable it to be used under the direct control of the fire service when fighting a fire. The firefighting lift is a development of the type of lift known as a "fireman's lift". Although existing "fireman's lift" installations may in some circumstances be refurbished, in new buildings and those under going significant changes, the aim should be to provide lifts that comply with the current codes of practice. Further information can be sourced from BS EN 81-72 2015 – Lifts: Firefighters lifts.
- 4 It is not possible to determine where or not a lift is a firefighting lift or a fireman's lift visually. The type of lifts should be identified during the planning phase and during PRA visits and recorded in the ORD. Older lift installations may not provide all the facilities that modern firefighting lifts, conforming to the latest European standard will offer. In these instances, lift facilities and functions should be checked during the planning phase for appropriate use at an incident.
- 5 The minimum features to be considered when assessing whether a lift is safe for use by Firefighters should include the provision of:
 - Fire fighter recall switch at access level
 - Fire fighter in-car controls
 - Fire fighter communication system
 - Floor indicators
- 6 Early control of the firefighting lift(s) must be taken by switching the fire switch to the 'on' position. If any doubt exists as to which floors a lift serves, its use should be avoided.
- 7 The fire control switch varies according to the manufacturer, but is of a positive on/off type and is located adjacent to the firefighting lift. There are a number of different types e.g. a switch contained in a glass fronted box or metal fronted padlocked box, or of lift key type. In all cases the position of the control switch should be indicated by a suitable notice. For a modern standard firefighting lift installation the expectation is that when the control switch is operated to the 'on' position it will provide the following action:
 - (e) If travelling upwards the lift car will stop and return to the access floor level, while if the car is travelling downwards, it will continue to travel and stop at the access floor level. At the access floor level the doors will then open and remain open. The buttons provided at each floor landing and inside the car will be inoperative during this period.
 - (f) When the lift reaches the access floor level the landing call point buttons will remain inoperative but the car buttons will resume control. Because of this, where resources allow,

a firefighter is to be detailed as the firefighting lift operative to maintain control of the lift and is to remain in control until relieved of this duty. This firefighter is to have a radio for communication with the bridgehead and the IC.

- (g) Modern lifts require the close door button to remain depressed until the door has closed fully and the open door button depressed until the door has opened fully. This is a safety mechanism to minimise the risk of firefighters becoming caught in a fire in the lift lobby area.
- (h) When two lifts are side by side it is possible that both will be controlled by the fire control switch; this will be the case if, on the operation of the switch, both cars return to the access floor level and the doors open and remain open.
- (i) The lift is to be taken to the bridgehead when firefighting commences so that it is available to transport any rescued people quickly to ground floor level. The lift operative must closely monitor radio traffic to ensure that the lift is used to greatest effect when required at either the bridgehead or ground floor. If the lift is not available to transport casualties to the ground floor, consideration must be given to requesting additional resources to assist.
- (j) When a firefighting lift is used for emergency purposes care must be taken not to overload it and, when the emergency is over, the fire switch is to be returned to the off position, the cover closed and secured and one of the landing call buttons operated to check that the lift has been restored to normal working.
- (k) The use of passenger lifts that are not identified as a firefighting lift should be avoided and must not be used for firefighting purposes. Normal lifts do not have a dedicated power supply and will not be under the control of the fire service personnel. It is possible for a normal lift to be called to the floor involved in the fire and the doors to open automatically, exposing the occupants to potential harm.

Appendix 3 - Dry rising mains

- 1 A dry rising main (DRM) consists of an empty pipe installed vertically in buildings over 18 metres in height, with a fire service inlet at the lower end and outlets at various levels throughout the building. DRMs may be installed in any building as a compensatory feature to address other factors such as the nearest hydrant, poor perimeter access or layouts within buildings which exceed 45m from the fire appliance to the furthest point.
- 2 The advantages of using a DRM are that it:
 - Reduces the time taken to supply water to upper levels
 - Reduces the amount of hose required to reach the fire
 - Reduces frictional loss in the delivery supply
 - Lessens the amount of equipment needed
 - Reduces effort required by personnel
 - Helps to keep stairways clear of hose
- 3 A DRM can deliver at least 1500 litres of water per minute. If the requirement for water exceeds the DRM capacity, the IC should consider augmenting supplies.
- 4 The inlet box will have the words 'DRY RISER INLET' in 50mm lettering on the box door for identification. They have a 65mm instantaneous female outlet on each floor or in some cases alternate floors. Riser outlets should be located either in a protected lobby or approach stairway. The outlets should be secured in the closed position. In a residential building, it should be noted that the lobby may be the corridor.
- 5 A drain valve is connected at the inlet and allows the system to be drained on completion of the incident. An air valve is normally fitted at the highest point in the riser to facilitate drainage by allowing air to enter the riser.
- 6 The British Standard – BS 9990:2015 includes the requirement for the provision of isolation valves at intervals not exceeding 10m so that sections of the fire main can be isolated to enable repairs to be carried out. The valves should be secured in the open position by a chain and padlock or incorporated within a monitoring system to indicate when the valve is not fully open. (However these are sometimes considered an overprovision in DRM installations and may not therefore be present. They should however be found in new WRM installations.)
- 7 The standard charging pressure for a DRM is 10 bar at the inlet.
- 8 DRMs have a finite capacity to deliver water. If multiple jets are in use, it may not be possible to achieve optimum flow rates or recommended operating pressure for individual branches. Branch collar and flow settings can be used to improve water distribution between all jets in use.
- 9 Where two separate rising mains exist within the same building, the management and identification of branches must be strictly controlled and communicated between sector commanders.

Appendix 4 - Wet rising mains

- 1 Wet rising mains may be fitted in all buildings over 60 metres in height (as of 2006 buildings over 50 metres in height) due to the excessive pressures required to pump water beyond this level.
- 2 Wet rising mains consist of vertical pipes similar to the dry rising main system with landing valves at each floor. The pipe system is connected to a permanent water supply, normally a tank, fed from the town mains. Duplicate automatic pumps, one duty and one standby supply this water to the pipe system.
- 3 The tanks are fitted with an automatic warning system to indicate a low water level.
- 4 At protracted incidents or where there is a high demand for water, the wet rising main tank may need to be augmented.
- 5 Wet rising mains are designed to supply 1500 litres per minute for 45 minutes as a minimum. Due to the height of the building and the pressures used, water pressure reduction valves are fitted to the outlets at each floor.
- 6 If the WRM should fail, the IC should identify whether the system has isolation valves installed and use these to optimise water supplies to the outlets being used.
- 7 Buildings constructed prior to 2006 will have outlet pressures of 4 to 5 Bars. Changes to BS 9990:2015 now recommend an outlet pressure of 8 Bars, this recommendation does not effect installations installed before this date.

Appendix 5 - Water suppression systems

1. These may be found in commercial, residential and multiple use high rise buildings (and since 2006 has been a requirement to be installed in residential buildings over 30m) and can play an important part in fire suppression. Sprinkler installations comprise of a system of pipes erected at or near the ceiling of each floor and are connected (through a series of valves) to one or more dependable water supplies. The installation of sprinkler systems may enable larger compartment areas with significant fire loadings to be constructed. It is important to understand the system installed and how it operates during familiarisation visits.
2. Sprinklers perform three functions: to detect fire, to attack fire and to give an audible warning.
3. All residential buildings over 30m and built after 2005 should have the facility to isolate the sprinklers per flat or per floor
4. On arrival a member of the team should be sent to the main stop valve in a commercial premises or on the floor controls for residential, so that:
 - a. They can open the valve if they find it closed, on the orders of the IC.
 - b. They can ensure that the valve is not closed except on the orders of the IC.
5. Where the water supply can be augmented, via a Brigade inlet, the pump should be set in ready to increase the pressure should a large number of sprinkler heads be operating at the same time.
6. The sprinklers should not normally be turned off in order that the fire may be fought with jets or spray branches.
7. If extra water is needed, it should not be taken from the main supplying the sprinklers unless it is of a large size.
8. Always check the area where the sprinklers have activated to make sure the fire is out and not hidden under stored items.
9. If for any reason the water supply to the sprinklers cannot be turned off, consider damage control to avoid unnecessary water damage. Water discharge from single sprinkler heads can be dealt with by tying the female coupling of hose under the sprinkler head and running the hose out of the building.
10. Sprinkler floor isolating valves may be fitted to the system to allow for maintenance or repair of part of the sprinkler system. See [Policy number 47](#) - Sprinklers and drenchers.
11. Residential systems can have isolation valves located within the flats, outside the individual flats (ceiling mounted) or whole floor isolation points located in service risers.
12. Where fire control centres are provided often the sprinkler system is fully monitored. Therefore there should not be any need to send a FF to the stop valve. The IC should liaise with the fire control centre to confirm this.

Water mist –systems

13. Water mist systems are increasingly being used in the built environment but are still classed as water suppression systems. Crews are advised to familiarise themselves with the basic components of these systems as they may not have all the design features of a traditional

sprinkler system. Additionally they will fall into different categories depending on the risk they are designed to protect.

14. For more technical detail reference can be made to the British Standard Draft for Development series 8489-1:2016 – Industrial & Commercial & BS 8458:2015 Residential & Domestic systems

Appendix 6 – Controlled dividing breeching – Protocols for use

1. Only **one** controlled dividing breeching should normally be used in a rising main. This should normally be connected to the DRM via the short length of 70mm DRM outlet hose to reduce strain on the DRM outlet.
2. The second jet (to protect the egress of firefighting teams) can be taken from the dividing breeching.
3. Where two jets are supplied via dividing breeching, a burst length in one hose line will cause a reduction in the quantity of water supplied to the second jet.

Appendix 7 – F.I.R.E. System

1. The F.I.R.E system is designed to be a "Grab & Go" solution, to efficiently and systematically transport the essential items of equipment required at the bridgehead in the early stages of the incident.
2. Although not intended to be absolutely prescriptive, using the F.I.R.E system and distributing equipment as detailed below, allows the risk critical equipment to be transported in a systematic way to the bridgehead by a minimum of 4 personnel.
3. Example of division of tasks and equipment - Team of 4:
 - **Sector Commander Fire/Bridgehead commander**
 - F.I.R.E bag ([Policy number 907](#) - F.I.R.E Bag - technical information)
 - Thermal Imaging Camera
 - Halligan bar (FEE)
 - **Entry control operative**
 - IEC Pack
 - ECO Board
 - Forward information board
 - CF2 hydraulic door opening tool (in holdall)
 - **2 x BA Wearers**
 - SDBA Set each
 - 2 lengths of 45mm hose each - secured with carrying straps or carried as a Cleveland roll
4. As soon as practicably possible, the F.I.R.E system should be augmented as a minimum with:
 - i) Sufficient hose for two hose lines to reach the effected area of the building
 - ii) An additional branch
 - iii) Bracket and tripod for BA board
 - iv) Access keys/codes
 - v) Floor plans (if available)
 - vi) Extinguisher

Further information on the F.I.R.E system is available via the [F.I.R.E. system briefing document](#)

Appendix 8 - Buildings with combustible cladding

1. Since the Grenfell Tower fire, all responsible persons for buildings with aluminium composite cladding (ACM) were directed by the government to test their ACM to determine the combustibility of the products on their buildings. Fire Safety Inspecting Officers subsequently carried out fire safety inspections on those buildings with combustible cladding.
2. The purpose of the inspections was to ensure the general fire safety measures within these buildings were properly installed, maintained and managed. This included inspecting fire doors, fire compartmentation, smoke detection systems (where installed) and ventilation arrangements. Fire crews supported these inspections and where necessary have updated tactical plans on the operational risk database (ORD).
3. Over 200 buildings in London have been identified as having cladding systems and compartmentation issues that do not meet the required standard and subsequently present a risk of uncontrolled internal and external fire and smoke spread. The responsible persons of these buildings have implemented interim control measures which should a fire occur, will support a full evacuation of the building.
4. If 'stay put' advice is not supported, then a range of interim mitigating measures will be required in order to support the responsible person's simultaneous evacuation strategy, which could include a waking watch or a communal alarm in order to safely alert and evacuate the residents of the building.
5. Operational crews are expected to familiarise themselves with such buildings on their station grounds and ensure a revised tactical plan is prepared to reflect these arrangements. PN 800 Operational risk database provides guidance on undertaking a premises risk assessment and the development of a tactical plan. The plans should focus on identifying firefighting facilities installed in the buildings and have a good understanding of the fire safety measures in place to protect the lobbies, corridors and staircases should a fire occur. Consideration needs to be given to the occupants evacuating down the staircases when setting up a firefighting operation

Appendix 9 - Key point summary – High rise firefighting

Information on task or event

- MDT
- Plans
- Premises Information plate
- Persons reported
- Potential fire spread
- Evacuation strategy
- Building design
- Fire Survival Guidance
- Evacuation

Information about Resources

- PDA
- Aerial
- Police/Ambulance/Local Authority
- Utilities
- Firefighting lift
- Wet/Dry riser
- Sprinklers
- Hydrant location
- Ventilation arrangements

Information about Risk and Benefit

- Life risk
- Fire spread
- Signage
- MDT
- Processes within building
- Plant rooms
- Potential for collapse
- Gas
- Electricity

Gathering and thinking

Objectives

- Save life
- Locate fire
- Prevent fire spread
- Extinguish fire
- Evacuation
- Safety of personnel
- Ventilation

Communicating

- Radio channels
- Fire Survival Guidance
- Police/Ambulance/Local Authority
- "High rise procedure implemented" if; bridgehead established/risk assessed/access and egress is secured and maintained/ a charged jet deployed.

Controlling

- Sectorise
- Fire Survival Guidance and Search co-ordinator
- Evacuation strategy
- Cordons
- Safety Officers

Plan

- Site appliances leaving access for others
- Safety cordons
- Secure water supply– twin hydrant and DRM with 70mm hose and charge the DRM.
- Order resources
- Secure firefighting lift
- Conduct DRA to establish the bridgehead
- Minimum 1Lff and 3 FFs to bridgehead
- Fire Sector Commander
- F.I.R.E system:
 - Minimum of 4 people
 - F.I.R.E bag
 - 45mm hose sufficient to set up attack (min 4 lengths).
 - 1 x BA entry control board
 - 2 x BA sets
 - First aid and resuscitation equipment
 - Breaking in gear
 - Thermal imaging camera
 - Access keys/codes
 - Floor plans
 - Forward Information Board
- Adequate weight of attack
- Additional resources to bridgehead
- Safety team – internal and external;
- Stairwell protection team – Ventilation arrangements
- Jets to cover surrounding risks
- Rescues
- Co-ordinate search
- Evacuation strategy
- Communication structure
- Lobby sector

Document history

Assessments

An equality, sustainability or health, safety and welfare impact assessment and/or a risk assessment was last completed on:

EIA	15/10/2008	SDIA	15/11/2011	HSWIA		RA	17/05/2013
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Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Throughout	This policy has been protectively marked.	21/06/2011
Throughout	This policy has been reviewed as current. Minor changes have been made throughout and the Key Point Summary has been updated to reflect current procedure. Please read to familiarise yourself with the content.	18/11/2011
Throughout	Minor wording corrections added. Sections now correctly referenced.	23/11/2011
Page 16, para 8	Updated reference to form 5566 as this has now been withdrawn and replaced with a new procedure.	10/05/2012
Pages 11 and 12	Cross reference links to policies added to paragraphs 7.30, 7.35 and 7.37.	13/12/2012
Page 14	Reference page has been updated with additional policy numbers.	13/02/2012
Throughout	PN521 has been replaced with PN800.	22/02/2013
Page 12	Changes made following review of policy in response to an SAI event.	26/11/2013
Page 1 & page 22	Changed 'Protect' to 'Official' in line with new security marking scheme.	07/08/2014
Page 2 and 22	Key point summary removed from page 2 and KPS flowchart added as appendix 7.	28/08/2014
Page 2 Para 1.1 Page 4 Para 2.29	Reference made to PN 793 Compartment Firefighting. Minor amendment to wording.	11/09/2014
Page 21	'Subject list' table - template updated.	29/01/2015
Throughout	Policy updated to reflect national GRA 3.2. and associated LFB risk assessment	01/06/2015
Risk Assessment Throughout	Amended to include controlled dividing breaching. Updated to reflect introduction of Fire Initial Response Equipment (FIRE) Bag.	10/07/2017

Throughout	Changes made following review of policy in response to event.	
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Subject list

You can find this policy under the following subjects.

Cable entanglement	Buildings and Structures
Incident Management	Flowchart - Key Point Summary (KPS)
Wet rising main	Tower blocks
Special risks	Mobile Data Terminals (MDT)
High Rise Buildings	High Rise
Firefighting shafts	Firefighting lift
Firefighting - Special risk areas	Firefighting – Buildings
Firefighting	Dry Rising Mains
GRA 3.2	

Freedom of Information Act exemptions

The reason this policy has been securely marked:

Considered by: (responsible work team)	FOIA exemption	Security marking classification
Operational Procedures	Fully exempt, see FOIA592.1 request.	Official – Ops Security Official – Health & Safety

Standard Equality Impact Assessment Form

Question 1: Which Team, Department, or Project Board is responsible for carrying out the Standard Equality Impact Assessment?

Name	<i>OPA Fire and Ops Support Policy</i>
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Question 2: Lead assessor's contact details

Name	<i>Daniel Kipling</i>	Mobile No	07342 026 121
Job title	Group Commander	Extension	31003
Department	OPA	Email	Daniel.kipling@london-fire.gov.uk

Question 3: Title of / policy (please include the policy number) / project / report / proposed change / initiative / decision

PN633 High Rise Firefighting

Question 4: Is the work...

New		A complete redesign	
A small change or policy review		Other (e.g. reviewed as current)	Policy reviewed and amended to provide new guidance and procedures regarding responding to increased risks when high rise buildings do not behave in fires as they were designed to. Changes are also made with regard to routine incidents, to prepare for the potential of this happening.

Question 5: Briefly outline the aim and the purpose of the work

Aim	Amend PN633 to provide guidance on operational procedure when responding to buildings that do not behave in fires as they were designed to. This policy provides a operational framework to respond to this foreseeable risk and provides controls measures for the increased risk of these procedures.
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Purpose	Provide procedural guidance for operational staff.
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Question 6: Has an EIA been conducted previously? (please tick)

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
If yes, attach	An EIA was completed for the existing PN633		

a copy. If no, state the reason.	
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Question 7: Who is it intended to benefit / Who does the change affect?					
Staff	X	Wider public	X	Service users	
Other (please state)					

Initial Equality Impact Assessment – Screening Stage

Complete the table below to see whether you need to complete a full Equality Impact Assessment.

Only positive impacts identified: No full EIA required	Only neutral impacts identified No full EIA required	One or more adverse impacts identified Full EIA required
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Question 8: Identifying the impacts	
Consider the relevance of the policy / project / decision on each group below and describe any impacts identified. NB: Some characteristics may attract multiple impacts e.g. age: positive impact on older people, adverse impact on younger people.	
Protected Characteristic	Level of Impact (Positive impact, neutral impact, adverse impact)
Age (younger, older or particular age group)	Positive Impact – the provisions made in this policy are designed to increase the feasibility of rescue of persons in age groups where their mobility or ability to self evacuate are likely to be hindered.
Disability (physical, sensory, mental health, learning disability, long term illness, hidden)	Positive impact - the provisions made in this policy are designed to increase the feasibility of rescue of persons in groups where ability to self evacuate are more challenging as a result of disability.
Gender reassignment (someone proposing to/undergoing/ undergone a transition from one gender to another)	Negligible
Marriage / Civil Partnership (married as well as same-sex couples)	Negligible
Pregnancy and Maternity	Positive impact – the provisions made in this policy are designed to increase the feasibility of rescue of persons in groups where their mobility or ability to self evacuate are likely to be hindered as a result of pregnancy or maternity.
Race (including nationality, colour, national and/or ethnic origins)	Positive impact – The changes to this policy have been made as a result of the learning outcomes from the

	<p>Grenfell Tower fire. Grenfell Tower residents were racially diverse. Based on Grenfell alone, the changes to this policy should have a positive impact of the survivability of these groups in a similar circumstance. However, more research is required in this area to determine impacts to this group across London (detailed below).</p>
<p>Religion or Belief (people of any religion, or no religion, or people who follow a particular belief (not political))</p>	<p>Positive impact as this characteristic links in closely with race.</p>
<p>Sex (men and women)</p>	<p>Negligible <i>The reference within the policy to "firemans" lift is due to a specific type of lift that differs from a "firefighting lift". This is industry standard. It is recognised that this terminology would not usually be acceptable and its use has been limited to an absolute minimum and "firefighting lift" used wherever possible.</i></p>
<p>Sexual Orientation (straight, bi, gay and lesbian people)</p>	<p>Negligible</p>
<p>Are there any other groups this work may affect? i.e. carers, non-binary people, people with learning difficulties, neurodiverse people, people with dyslexia, ADHD, care leavers, ex-offenders, people living in areas of disadvantage, homeless people, people on low income / poverty?</p>	<p>Positive impact - the changes made to the provisions in this policy are designed to increase the feasibility of rescue of persons in groups where their mobility or ability to self evacuate are likely to be hindered, whether this is due to mobility issues or cognitive impairment. Based on the outcomes of the Grenfell tower fire, there may be an increased likelihood of these groups in high rise fires – more detailed data analysis in this area is required (detailed below). Additionally, although the area is typified as an affluent area of London, the residents of Grenfell Tower were typically on lower incomes or experiencing levels of poverty. Whilst technically this is not covered by the Equality Act 2010 or PSED, it is worth noting that, "poverty and powerlessness make it much harder to battle with discrimination and discrimination itself can undoubtedly generate poverty and powerlessness¹." As an issue of intersectionality, combined with the above characteristics, we have considered the impacts on this group by looking at it from both a fire risk perspective as well as specifically against the changes to the policy to ensure there is a positive impact on this group for those living in high rise buildings. Additional work: It is intended that this policy does not go-live and be used until adequate training has been provided and specific equipment available. This will take 6 months. In this time there are a number of areas that require additional work:</p> <ul style="list-style-type: none"> • Data analysis where possible considering the

¹ Public Bill Committee (Equality Bill), 6th sitting, 11 June 2009, col. 156. Principle 14 of the Declaration states: "As poverty may be both a cause and a consequence of discrimination, measures to alleviate poverty should be coordinated with measures to combat discrimination, in pursuit of full and effective equality."

	<p><i>occupant composition of high rise buildings. The assumptions made within this EIA will be tested and findings of the analysis will enable a further EIA to be undertaken and a subsequent review of the policy.</i></p> <ul style="list-style-type: none"> • <i>Communication to residents is key at a high rise incident, particularly where an evacuation or rescues are required. Work will be undertaken to consider the use of pictogram cards to be used to instruct and inform residents in this event.</i> • <i>There is a range of language skills within our current operational staff. These skills could potentially be utilised at high rise and other incidents which effect diverse communities. Work will be undertaken to consider the feasibility of this.</i> • <i>High rise incidents may be traumatic for both staff and residents. The policy does not specifically detail guidance regarding this, but is supported by PN915 – Recognising and coping with potentially traumatic events and a dedicated Counselling and Trauma Services team.</i>
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Question 9: Has your assessment been able to demonstrate the following?

Positive impact	<p>The changes to existing policy have had a positive impact through soft/anecdotal analysis on a number of protected characteristics including age, disability, pregnancy and maternity and race. However, further data analysis is required to provide more robust evidence (as detailed above).</p> <p>There are further areas of work to be consider e.g. pictograms and using existing staff language skills before this policy is used.</p> <p>The policy and this EIA will be reviewed following each of these workstreams.</p>
Neutral impact	
Adverse impact	
Any other comments	

Question 10: Meeting the [Public Sector Equality Duty](#) under s149 Equality Act 2010

How have you considered whether this project / policy / decision does the following:	
<ol style="list-style-type: none"> 1. Eliminates unlawful discrimination, harassment and victimisation 2. Advances equality of opportunity between different groups, and 3. Fosters good relations between different groups. 	
What we must do under law	Provide a description or summary of how this will be achieved
Eliminate discrimination	<i>The changes to this policy have been made to improve existing high rise procedures as a result of the review of the Grenfell Tower fire. The changes are designed to positively impact protected characteristic groups who may be more at risk of fire; who may be more significantly impacted by fire; or whose mobility inhibits evacuation in the event of a fire in a high rise building. The changes to the policy are designed to mitigate the disadvantages these groups face in relation to fire, thereby demonstrating commitment to elimination of discrimination. An example of this are changes that have been made to consider the impact of people with mobility issues residing on the upper floors of a high rise building, whose ability to be rescued may be hindered by (but not limited to) age, disability or pregnancy or maternity.</i>
Advance equality of opportunity	<i>This is less relevant to the changes made in this policy.</i>
Foster good relations	<i>Fostering good relations between people who share a protected characteristic and people who do not share it is part of the Equality Act 2010 and PSED; there have been a number of misconceptions around processes undertaken at Grenfell Tower in relation to protected characteristic groups, such as BAME victims of the fire (which links in with religion or beliefs). By making these changes to our High Rise Policy, we are able to update our externally published information (through our website) on our processes to inform the public on our considerations around those with protected characteristics and why this is something we consider when decision making.</i>

Question 11: What data has been used to inform the Impact Assessment? (E.g. GLA Datastore, Census Data, Staff Monitoring Data, Staff Survey Data, Local Borough Population Demographics).	
Data Source	How it has been used
	<i>More research is to be completed before this policy goes live regarding the demographics and occupant composition of high rise residential buildings, and the impact on protected characteristic groups.</i>

Question 12: Have you consulted with staff, LFB support groups, trade unions, public / service users, and / or others to help assess for impacts? (please tick)			
Yes	X	No	
If yes, who was involved and how were they involved? If not, why not?			
Who?	Representative bodies LFB Inclusion team		
How?	Consultation and through the Brigade Joint Council for Health Safety and Welfare.		
If no consultation, why not?			

Question 13: How have you ensured your policy, project or proposal uses inclusive language that doesn't unintentionally discriminate against certain groups?	
Tools used to assess inclusive language e.g. gender bias screening tools , Stonewall toolkit on inclusive policies, speaking with Inclusion Team, Comms Style Guide , Policy 0370: Writing Policies and Procedures .	Outcome
<i>PN370 – policies and procedures guidance</i>	
<i>Consultation with the LFB Inclusion team</i>	

Full Equality Impact Assessment Form

If you have identified **any** potential or actual adverse impacts, you must complete a full equality impact assessment form.

A full assessment helps you to decide what steps need to be taken to mitigate or justify the adverse impacts you have identified.



For guidance and support, please contact the Inclusion Team (Second Floor, Union Street, or email safertogether@london-fire.gov.uk) or a

relevant Equality Support Group [\(LINK TO ESG PAGE ON INCLUSION PAGES – HOTWIRE\)](#)

Full EIA Form and Action Plan

Lead person responsible:	GC Dan Kipling
Date the Action Plan will be reviewed:	01/05/2020

Protected Characteristic Group	What impact did you identify (positive, neutral, adverse)?	Do you plan to mitigate or justify this impact?	How will you mitigate or justify the impact? Outline the steps that will be taken	Who will be responsible?	When will this be reviewed?
Age	Positive	N/A			
Disability	Positive	N/A			
Gender reassignment	Neutral	N/A			
Marriage / Civil Partnership	Neutral	N/A			
Pregnancy and Maternity	Positive	N/A			
Race	Positive	N/A			
Religion or Belief	Positive	N/A			
Sex	Neutral	N/A			
Sexual Orientation	Neutral	N/A			
Other group e.g. carers, non-binary people, people with learning difficulties, neurodiverse people, people with dyslexia, ADHD, care leavers, ex-offenders, people living in areas of disadvantage, homeless people, people on low income / poverty.	Positive	Yes	Investigation to be completed regarding using pictogram messaging to inform/instruct occupants where English is not their first language. Work completed to look at Feasibility of using language skills	GC Dan Kipling	01/05/2020

			<p>of existing staff to communicate to occupants at an incident if required.</p> <p>Data analysis where possible considering the occupant composition of high rise buildings. The assumptions made within this EIA will be tested and findings of the analysis will enable a further EIA to be undertaken and a subsequent review of the policy.</p>		
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Document Control

Signed (lead for EIA / action plan)	Dan Kipling	Date	11/02/20
Sign off by Inclusion Team	Tiffany Oarten	Date	11/02/20
Stored by	Operational Policy & Assurance Dept.		
Links			

Dates for action plan to be reviewed	Comments

Sustainable Development Impact Assessment Checklist

Project Name/ Policy Name & No: Updated High Rise Firefighting Policy 633

Contact Person: GC Daniel Kipling

Date completed: 10.01.20

Please send through the completed checklist with a copy of the project PID or the draft policy to environment@london-fire.gov.uk. For existing policies undergoing minor amendments, please send through a marked up copy of the policy, with the original SDIA.

Other impact assessments completed				Yes	No
1. Has an Equalities Impact Assessment been completed?				<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Has a Health, Safety and Wellbeing assessment been completed?				<input checked="" type="checkbox"/>	<input type="checkbox"/>
Environmental Impacts					
3. Will this consume any of the following (please tick those that apply and state how and if this would increase or decrease our consumption):					
Gas	<input type="checkbox"/>	Electricity	<input type="checkbox"/>	Water	<input checked="" type="checkbox"/>
Petrol or diesel	<input checked="" type="checkbox"/>	Hazardous chemicals	<input type="checkbox"/>	Other natural resources e.g. timber	<input type="checkbox"/>
Comments: This policy discusses fire fighting tactics, media and equipment to be used in the case of a high rise fire, which has the accepted resource use and impacts of fighting such fires. This policy also sets out the approach to bring such fires to conclusion as quickly as possible, thereby limiting resource consumption as much as possible.					
4. Will this produce or reduce our production of (please tick those that apply and describe what and how):					
Non-hazardous waste	<input type="checkbox"/>	Hazardous waste (see PN 862)	<input type="checkbox"/>	pollutants to air, land or water?	<input checked="" type="checkbox"/>
Comments: It is to be expected that there would be water runoff and smoke as products of the fire that could cause low level pollution that doesn't require specialist management.					
5. Will this impact (positively or negatively):				Yes	No
a. Operational/business travel by staff				<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Travel/deliveries by our suppliers				<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Environmental protection at incidents				<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. a Site of Special Scientific Interest				<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Gardens or other wildlife at stations/brigade sites (e.g. nesting birds or bats)				<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments:					

This is an update to existing policy and does not result in an increase

Procurement	Yes	No
6. Will this result in the purchase of goods, services or works or influence how they are procured?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Is this for a purchase of greater than £1m?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Will this use/result in a tender for manufactured goods such as electronics, textiles, and building materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Will this service require low skilled/low paid employees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Will the goods consume utilities or consumables?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Does this involve major works taking place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. If so are BREEAM and Ecological surveys required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l. Will this support future cost avoidance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m. Could all or part of the purchase be provided by small or local businesses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
n. Could this be delivered by a voluntary/community sector organisation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o. Has a Request For Tender been submitted to Procurement through hotwire?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

This is an update to existing policy and does not result in an increase. Smoke Blockers and Fire Escape Hoods are subject of a different report.

For the SD Team to complete:

Policy sustainability risk rating: L

Inputs/outputs/ impacts to address in Full SDIA: ____N/A_____

Date completed: 27/01/20 Milly Osborne