



20 Pump Fire – New Providence Wharf

New Providence Wharf
1 Fairmont Avenue
London E14 9PL
Borough of Tower Hamlets

Date of Incident: 7 May 2021

Date of report: 27 June 2022

Protective Marking: Official – Sensitive

Contents

1	Background	3
2	Scope of report	5
3	Key Observations	6
4	Incidents where fire safety measures in buildings have failed	8
5	LFB preparedness – existing workstreams	13
6	Operational Risk Information	15
7	Building description – New Providence Wharf (NPW)	16
8	Incident summary	17
9	Summary timeline	19
10	Sequence of events (Based on information available at the time of writing)	20
11	Areas of internal review and findings	25
11.1	Mobilising and Control	25
11.2	Operations debrief and command review	30
11.3	Strategic response arrangements	35
11.4	Fire Safety (Fire Investigation and Regulatory Investigation)	42
12	Summary of key recommendations	51
13	Conclusion	56
14	Appendices	58
14.1	Appendix 1 Photographs of scene	58
14.2	Appendix 2 -Timeline of key activities	62

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The London Fire Commissioner is the fire and rescue authority for London



1 Background

London Fire Brigade (LFB) is one of the largest fire and rescue services in the world. The Brigade provides services across the whole of the Greater London area, serving London's 8.6 million residents as well as those who work in or visit the city. LFB is the busiest of all the fire and rescue services in the United Kingdom. It has 5,992 staff, including 5,096 operational firefighters and officers based at 102 fire stations (plus one river station).

On 7th May 2021, a fire occurred at New Providence Wharf (NPW), a high-rise residential building of 19 floors in the Borough of Tower Hamlets, in the north east of London. The building is partially clad in Aluminium Composite Material (ACM) cladding. Due to the presence of ACM cladding a number of mitigation measures were introduced by the building manager, pending remediation work. These measures included a 24/7 'waking watch' consisting of six personnel within the complex, and the building's previous 'stay put' strategy had been amended to 'simultaneous evacuation'¹. LFB has held record of this temporary change to evacuation strategy since September 2017.

The fire originated in a flat on the 8th floor and spread externally up the building affecting balconies directly above on the 9th, 10th and 11th floors. The flat of origin was subsequently 80% damaged by fire. An initial investigation has identified an electrical consumer unit (commonly known as a fuse board) as the likely cause of the fire.



¹ LFB provided significant support in the production of the National Fire Chiefs Council (NFCC) publication 'Guidance: To support a temporary change to simultaneous evacuation strategy in purpose-built blocks of flats'. This document is for owners and persons/organisations responsible for buildings fitted with ACM cladding. Technical guidance on arrangements to support a temporary change to the evacuation strategy is outlined within [NFCC Simultaneous Evacuation Guidance](#).



Initially five pumping appliances and an aerial was mobilised to NPW. Following the receipt of further calls to this incident, Brigade Control mobilised a further three fire appliances, one Fire Rescue Unit (FRU) and two Command Units (CUs). This met the requirements of PN: 412 Mobilising Policy. LFB's Fire Investigation Team were also informed.

The incident escalated to a 20-pump fire, with LFB declaring a Major Incident² because of a mass evacuation of the premises being implemented.

Despite the obvious and significant risk to life arising from the intense fire and unpredictable smoke spread, no serious injuries were reported and 67 persons self-evacuated the building with some being assisted by members of the waking watch.

Several individuals were identified as unable to leave their properties because of fire and smoke. A total of 15 scenarios whereby the LFB became aware of specific life risk, either via LFB Control or notification on the incident ground, were resolved over a 91-minute period. These consisted of individuals identified on scene requiring assistance as well as three Fire Survival Guidance³ (FSG) calls managed over phone lines via Brigade Control⁴.

² Major Incident: An event or situation with a range of serious consequences which requires special arrangements to be implemented by one or more emergency responder agency.

³ FSG is the advice and guidance given by control room officers (CROs) to persons who are directly affected by fire, heat or smoke and cannot leave their premises.

⁴ 3 FSG calls were categorised by LFB Control. One additional call was managed by LFB Control whereby the resident was asked to evacuate the property but was unable to do so due to smoke in the corridor which started to enter their flat. This caller remained on the phone for a period of time and was subsequently rescued by LFB crews prior to this being categorised and communicated as a FSG call.

Firefighters rescued 34 persons in total from the block using 22 smoke hoods⁵. London Ambulance Service (LAS) treated 37 residents on scene, and two persons were conveyed to hospital for further treatment.



2 Scope of report

The London Fire Commissioner has a statutory duty to review the performance of the organisation and ensure best practice and learning opportunities from incidents are identified, disseminated, and acted upon as appropriate.

The Brigade considers itself a learning organisation and is in regular contact with other fire and rescue service colleagues in the UK and internationally to share good practice and compare performance. The Brigade is the enforcing authority for the Regulatory Reform (Fire Safety) Order 2005 for most premises in London, including NPW. It has therefore had to investigate whether any regulatory response was required after the fire.

The Brigade is also conscious of its community safety duties for the provision of information in relation to prevention of fires and death and injury from fires.

⁵ Firefighters from LFB were among the first in the UK to carry fire escape hoods to protect members of the public from toxic smoke at fires. The hoods provide members of the public with up to 15 minutes protection from four of the main fire gases (carbon monoxide, hydrogen cyanide, hydrogen chloride and acrolein) and can be worn by conscious or unconscious people. The fire escape hood (Dräger Parat 5550h) is a self-contained unit to be provided to members of public who are unable to escape due to the fire and/or effects of smoke, or for those who during the course of their evacuation are likely to be exposed to smoke. The hood covers the entire head, and will help protect the eyes from dust, gases and splashes of liquid as well as heat, sparks and brief exposure to flame.

The fire at NPW raised very high public interest because of the nature of the premises, the firefighting, and rescues. The Brigade is therefore producing this report, the first it has publicly produced of this nature and by exception, to provide an overview of the fire and an account of the investigations undertaken, as part of LFB's openness and transparency to significant incidents. The report enables LFB to share good practice and organisational learning identified from an analysis of its own operational response to the incident and the wider organisational support mechanisms.

Good practice and learning from this incident will be managed and assured by Brigade's operational improvement process (OIP) (see Section 12 Summary of Key Recommendations for more information on LFBs OIP).

This report also provides the opportunity for other fire and rescue services and partner agencies to reflect on their local operational preparedness and service delivery; and implement or amend their own response arrangements, if required, in accordance with LFB's identified learning and good practice.

The report presents the findings of the following reviews by LFB:

- Brigade Control debrief.
- A review of operations supported by a facilitated thematic operations debrief⁶, focussing on FSG management, high rise firefighting and evacuation; this section also includes command review⁷.
- Implementation of LFB Strategic Response Arrangements (SRA)⁸.
- Fire Investigation.

This report is a product of the Brigade's investigation and review but should be considered a preliminary output only as there is a need for the Brigade to conduct further investigations, in order to achieve a full understanding and reach conclusions.

This report is based upon information available at the time of its production and may be subject to change if further information becomes available. No part of this report is intended for use in making commercial, legal, or other decisions.

3 Key Observations

Several key observations are presented throughout this report where good practice or organisational learning has been identified; and LFB feels there is value in sharing this critical analysis. The

⁶ The purpose of the operations debrief process is to provide feedback to individuals, teams and the organisation with the express aim of improving performance. Operations can be best described as tasks that are carried out on the incident ground to achieve desired objectives, using prescribed techniques and procedures in accordance with the tactical plan.

⁷ The command review process is the evaluation of the performance of the command function at larger incidents and training events. The command review is an analytical process that allows incident commanders and monitoring officers to discuss, review, analyse and evaluate all aspects of their period in command.

⁸ The Brigade's Strategic Response Arrangements (SRA) provide a flexible framework for managing and coordinating the Brigade's response to major incidents (spontaneous and protracted), significant emergencies and business disruptions. The SRA outline the core structures and key processes that the Brigade can stand-up during Major Incidents and business disruptions to facilitate the management of its:

- Internal operational response - management of frontline services;
- Multi-agency response - coordination with partner agencies;
- Business continuity response - maintenance and recovery of critical activities and key services.

The extent to which each of the Brigade's core structures is stood up can be adapted in accordance with the nature, scale, impacts and likely duration of the incident.

recommendations section below provides a summary of the key observations identified throughout.

The Brigade has instigated a number of workstreams to improve operational and organisational response to incidents across a range of areas. These workstreams have been implemented for several reasons including:

- Planned and regular review.
- LFB's Transformation Delivery Plan⁹ (containing the consolidated recommendations arising from the recent Grenfell Tower Inquiry (GTI) (Phase 1)¹⁰ and Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS) report dated 17th December 2019).
- Findings from other incidents and exercises across London and the United Kingdom (UK).
- Guidance and learning provided by NFCC Central Programme Office (CPO)¹¹.

Section 5 sets out the ongoing work the Brigade is currently doing to meet the recommendations of the Grenfell Fire Inquiry report and highlights the challenges faced by UK fire and rescue services. A summary of the existing workstreams are also provided within the key observations and recommendations sections.

⁹ [LFB Transformation Delivery Plan](#)

¹⁰ [Grenfell Tower Inquiry](#)

¹¹ NFCC CPO is responsible for the maintenance of national operational guidance and national operational learning. It also provides support to the Strategic Engagement Forum and for the Fire Standards Board. [NFCC Central Program Office.](#)

4 Incidents where fire safety measures in buildings have failed

The fire at NPW highlights the risks within the built environment and draws attention to the challenges faced by all UK fire and rescue services and other responding agencies.

There have been a number of major fires across the UK recently where buildings have not behaved as they should, with fire spread in contrast with the principles of building design and compartmentation¹² in respect of containing spread of fire. A number of these incidents are referenced below.

15 November 2019 'The Cube'. A multi-occupied residential building in Bolton, Greater Manchester. Rapid and unexpected fire spread was evident from the outset, severely affecting the building which featured a High-Pressure Laminate (HPL) external wall cladding system.



¹² Compartmentation is a fundamental component of fire safety design within a building separating large spaces into smaller, more manageable ones. This limits the spread of fire and smoke within a building and confines the fire to the site of origin during the time necessary for evacuation. Fire compartmentation is used to create a safe, protected means of escape for building occupants.

9 September 2019 Sherbrooke Way, Worcester Park, London a fire destroyed a housing block consisting of 23 homes. The building was constructed using a timber frame.



8 August 2019 Beechmere Care Home, Crewe, Cheshire. 150 residents of a care home were evacuated from the building, which included timber framed construction. Early recognition that the building was not behaving in accordance with the expectations of the fire and rescue service resulted in an immediate evacuation being ordered. The entire building was destroyed.

9 June 2019 De Pass Gardens, Barking, London. A fire occurred at a newly built six storey residential building. 20 flats were destroyed as fire spread via timber balconies.



30 December 2017 Lighthouse, Manchester. Three people were treated for smoke inhalation and one person was taken to hospital after a fire broke out in Manchester city centre's Northern Quarter. It started in a flat on the ninth floor of the 12-storey block and spread externally up the 10th and 11th floors via wooden balconies.



14 June 2017 Grenfell Tower, North Kensington, London. A fire broke out in the kitchen of Flat 16, Grenfell Tower. The fire spread to the external ACM cladding system resulting in extensive external fire spread around all sides of the building and internal fires between floors 4 to 23. Whilst 227 people evacuated, escaped, or were rescued from the building, the fire claimed the lives of 72 people.



The GTI was announced shortly after the fire and commenced hearing evidence in June 2018 with two planned phases. Phase 1 of the Inquiry focused on what happened on 14th June 2017, including where and how the fire started and spread. Phase 2 of the Inquiry is focused on the events leading up to the fire including the refurbishment of the building, the regulatory framework, the preparedness of LFB and actions taken by the Government.

The GTI published its Phase 1 report in October 2019 and this contains wide ranging recommendations which impact on fire and rescue services, other emergency services, housing providers and government.

15 June 2015 Wharfside, Wigan. Greater Manchester fire and rescue service responded to a fire involving a six-storey timber framed building, on Heritage Way in Wigan. The Wharfside fire was caused by a barbeque on a balcony of the top floor. The wooden-framed structure allowed the fire to quickly spread to affect a significant part of the building. People living in 120 flats were evacuated, with many spending the night in a rescue centre or a local hotel. Over 100 firefighters were needed to deal with the fire with 32 fire engines and two aerial appliances in use at the peak of the incident.



3 July 2009 Lakanal House, Camberwell, London. The Lakanal fire resulted in the loss of six lives. In addition, 15 residents and a firefighter were injured and a further 40 residents were evacuated and/or assisted to safety. Along with loss of life and injuries, over 90 families had to vacate their homes as a result of the fire.



A number of recommendations were made by the HM Coroner¹³ following the Lakanal House incident, including the need to improve the dissemination of fire safety information to ensure residents living in high rise residential buildings have a clear understanding of what they should do in case of fire.

These incidents highlight the ongoing concerns surrounding potential for unexpected fire and smoke spread in multi-occupied residential buildings (including, but not limited to high rise); linked to shortcomings in building construction practices, use of unsuitable materials and failings in the regulatory regime governing the design, construction and maintenance of buildings.

5 LFB preparedness – existing workstreams

The Grenfell Tower Inquiry Phase 1 report made 46 recommendations, directed at bodies including LFB, fire and rescue services more widely, other emergency services, national Government and owners and managers of residential buildings.

In total there were 29 recommendations aimed at LFB, 14 solely for the Brigade to address and 15 to address in conjunction with other organisations.

For the 14 recommendations aimed solely at the Brigade, action to deliver these recommendations is underway for all of these recommendations. Implementation has been completed for 13 of these:

- Updating LFB's policy on gathering and managing operational risk information, including procedures to support the completion of Premises Risk Assessments, and training firefighters in the new policy (Recommendations 3 and 4).
- Reviewing policy on communication between the incident commander and control room, and training both incident commanders and control room officers in this (Recommendation 10, 11 and 12).
- Providing a dedicated communication link between the incident commander and senior control room officer (Recommendation 13).
- Revise operational policy to distinguish between callers seeking advice and callers needing to be rescued (Recommendation 14).
- Providing regular refresher training to control room officers – this has started and will continue (Recommendation 15).
- Developing policy to ensure better control of breathing apparatus deployments (Recommendation 22).
- Developing policy and training to ensure better information is obtained from crews returning from deployments (Recommendation 23).
- Developing a system of direct communication between the control room and incident commander and improving communication between the incident commander and bridgehead (Recommendation 24).
- Investigating, and then delivering, a direct communication link between the control room and bridgehead (Recommendation 25). and
- Upgrading the servers on Command Units to enhance the connectivity and usability of the Command Support System software – further improvements are also planned in this area to enhance capability (Recommendation 27).

¹³ [Lakanal inquest recommendations](#)

There are 15 recommendations directed either at fire and rescue services or emergency services generally, which includes the London Fire Brigade. Action by the Brigade to deliver the recommendations directed at the organisation is underway for all of these recommendations. 13 of these recommendations have been implemented by the Brigade, but not necessarily yet by all other fire and rescue services:

- Training staff in the risks of external wall fires in high-rise buildings (Recommendation 2).
- Developing policy for handling a large number of 'fire survival guidance' calls simultaneously (Recommendation 16).
- Developing a system to display fire survival guidance information in command units and at the bridgehead (Recommendation 17).
- Developing policy for managing a transition in advice to from 'stay put' to 'get out' during emergency incidents, and training control room officers to handle this change in advice, when necessary (Recommendations 18 and 19).
- Developing methods to enable effective information-sharing between control rooms for different fire and rescue services during incidents (Recommendation 20).
- Developing policy and training for the evacuation of high-rise buildings (Recommendation 29).
- Introducing smoke hoods to aid in the rescue of people in smoke-filled environments (Recommendation 34).
- Updating procedures to improve communication between emergency services in a major incident (Recommendations 40, 41, 42 and 43), and
- Investigating ways of improving the collection and sharing of information about survivors (Recommendation 46).

There are 12 recommendations aimed primarily at the Government. This includes 11 recommendations where the report recommends a change in the law to place new requirements on building owners and managers; this process is underway, notably with the passing of the Fire Safety Act 2021 and Building Safety Act 2022. A further three recommendations are aimed at building owners and managers, but without requiring legal changes. A recommendation aimed at the National Police Air Service, to enable emergency services to view images recorded by helicopters at incidents, has been implemented.

It should be noted that because of the demands placed on the Brigade and other services by the COVID-19 pandemic, some of the actions to implement the Inquiry's recommendations were delayed. The Brigade continues to examine ways to mitigate the impact of COVID-19 on its delivery of the recommendations, to ensure implementation can continue with minimal delay.

Notably, the Brigade's new procedures on fire fighting in high-rise buildings, providing fire survival guidance to people affected by incidents and undertaking evacuations required an extensive training programme before they were implemented. This training programme was originally due to be delivered by September 2020, but with in-person training limited by the pandemic, the schedule was amended to ensure delivery by March 2021, and this was successfully achieved.

6 Operational Risk Information

The Brigade's PN: 800 'Management of operational risk information' provides the policy framework and guidance for personnel on the Brigade's risk based approach to identifying, gathering and disseminating operationally important site risk information and recording it on the Operational Risk Database (ORD).

The Brigade's ORD is the main database which holds location-based operational risk information. The primary purpose of the ORD is to record significant hazards and risks, including any less obvious hazards and any unique control measures in place, as well as any particular tactical plans or command and control procedures required. Appropriate information and a tactical plan, when required, is added to the ORD by station personnel via the Station Diary application and assured by Station Commanders.

The information held on the ORD (including electronic Premises Information Plates) is made available to crews via icons on maps displayed on appliance Mobile Data Terminals (MDTs) and can also be accessed by the subsequent Incident Commanders (IC) through the systems available on Command Units (CU).

In April 2012, the Department for Communities and Local Government (DCLG) and the Chief Fire and Rescue Advisor's Unit (CFRAU) published the Fire and Rescue Service Operational Guidance - Operational Risk Information.

The purpose of the guidance is explained as '...robust yet flexible guidance on developing and maintaining a consistent approach to managing, processing and using strategic and tactical operational risk information that can be adapted to the nature, scale and requirements of the individual Fire and Rescue Service.' and "... to provide consistency of approach that forms the basis for common operational practices, supporting interoperability between Fire and Rescue Services and other emergency responders ... to support safe systems of work ... and enhance national resilience'.

Following publication of this national guidance, the Brigade's Strategy and Risk department undertook a gap analysis to determine the extent to which the Brigade was compliant with the published guidance. The outcomes were presented to the Corporate Management Board on 6th March 2013 and noted that the Brigade's system was robust and largely compliant with national guidance.

In late 2019, the NFCC Protection Board launched the Building Risk Review (BRR) Programme which has now merged with the Operational Risk Information Project and has the objective of reducing the risk from fire in high rise residential buildings. The Programme is supported by Government funding and aims to meet the ambition set out by the Secretary of State for Housing, Communities and Local Government in September 2019 to, 'significantly increase the pace of inspection activity across high rise residential and other high-risk buildings to ensure all have been inspected or reviewed by the end of 2021'.

In March 2020, the Fire Protection Board's first BRR exercise (Phase one) focusing on ACM buildings was successfully completed by Fire and Rescue Services. Phase two of the BRR started to roll out in April 2020, with the aim of ensuring all high rise residential and other high-risk buildings are inspected or reviewed by 31 December 2021.

By May 2021 LFB had reviewed 7200 residential high-rise addresses. This has been cross referenced with the 8005 high rise residential building addresses supplied by Ministry of Housing and Local Government as part of the BRR.

As part of the ORI project LFB has undertaken 7762 Premises Risk Assessments (PRA) at addresses of residential high-rise premises. As a result of the PRAs all ORD records have been reviewed and

amended as appropriate. Additionally, a total of 7575 electronic Premises Information Plates (ePIP) are now in operation. Premises Information Plates are a way of providing attending crews with a standard, quick and easy visual display of the key features of high-rise residential premises. The information includes the number of floors, the layout of the flats or maisonettes, as well as other information designed to aid the early decision-making process should there be an incident at the premises.

At the NPW fire on 7th May 2021, attending crews accessed the ORD records via MDTs on fire appliances and the CU.

'Vision', the Brigades mobilising system, ORD records and witness statements from firefighters and officers have been reviewed as part of the investigation into this incident. ORD records were identified as supporting operations during the Operational debrief and command review processes. Section key observations – operations review provides the specific findings in relation to operational risk information available to crews at NPW on 7th May 2021.

7 Building description – New Providence Wharf (NPW)

NPW is a residential development, designed by Skidmore, Owings and Merrill, and developed and managed by the Ballymore Group. The complex consisted of a crescent-shaped, purpose-built high-rise block of residential dwellings of 19 floors, circa 2005, measuring approximately 180 metres long by 20 metres deep. The building comprised of five adjoining blocks, A-E. The fire started in block D, which measured approximately 40 metres by 20 metres and was partially clad in ACM cladding.



Image showing the South face of New Providence Wharf

Due to the presence of ACM cladding, reports were commissioned by the Ballymore Group which resulted in a number of mitigation measures being introduced pending remediation work. These

measures included a 24/7 'waking watch' consisting of six personnel within the complex and the building's previous 'stay put' strategy had been amended to 'simultaneous evacuation'.

LFB has held record of this temporary change to evacuation strategy since September 2017.



Image showing the roof of New Providence Wharf with AOV vents

Block D has a communal entrance leading to two lifts and a staircase. The lifts and staircase opened on to communal lobbies on all floors, which in turn led to communal corridors, which served the flats. On the upper floors there are 10 flats per floor. The communal corridors had Automatic Opening Vent (AOV) systems, leading to vertical smoke shafts that ran the height of the building and cross corridor fire doors, magnetically held open. These two systems should operate when smoke detectors within the corridors and lobby areas on each floor actuate; this actuation should also set off sounders on the basement, ground, and top floors. The stairwell and lobbies form part of a firefighting shaft and one of the lifts is a Firefighting lift which should also operate on the actuation of the smoke detectors. The stairwell had a separate AOV system which could be operated by break glass call points at the base and head of the stairs. The control panel, which operates the systems listed above, was located in the Fire Control Centre (FCC), situated on the ground floor of the complex between blocks A and B.

The flat where the fire originated was located on the eighth floor of block D and consisted of a kitchen, living room, bathroom and two bedrooms; one of which led to a balcony. The flat had a hard-wired smoke detector within the hallway and a hard-wired heat detector within the kitchen.

8 Incident summary

This fire (LFB incident number: 053666-07052021) started in a flat on the eighth floor. The first call was received by LFB at 08:54:58 hours on the morning of 07/05/2021. Brigade Control mobilised 5 pumping appliances and an aerial at 08:55:57 (a total call handling time of 59 seconds).

The initial call to LFB was made by the waking watch on the scene, as per the updated guidance and implementation of strategic improvements recommended in light of the Grenfell Tower incident and inquiry.

Initially 5 pumping appliances and an aerial appliance was mobilised to this incident. At 08:58 hours, following the receipt of further calls to this incident, Brigade Control mobilised a further three fire appliances, one FRU and two CU's to attend the incident. LFB's Fire Investigation Team were also informed.

This mobilisation met the requirements of LFB Mobilising Policy.

'Vision', the Brigade's mobilisation system, automatically provided ORD information relating to previously identified building information, that this building had a 'special evacuation' in place due to cladding/fire safety breeches to all mobilised appliances. Vision sent this information digitally to all Brigade call slips and MDTs provided on all appliances (see section entitled 'Operational Risk Information').

At the time of the fire a person in the flat discovered a fire in a small cupboard which contained the electrical consumer unit. Prior to the arrival of LFB, approximately 67 persons self-evacuated the building assisted by members of the waking watch.

The incident escalated to a 20-pump fire at 09:32 (37 minutes after the time of first call), at 09:33 (38 minutes after the time of first call) mass evacuation of the block took place, with LFB declaring it a Major Incident at 09:43 (48 minutes after the time of first call). Also, at 09:43 (48 minutes after the time of first call) alteration of stay put guidance was implemented, informing residents to leave their properties rather than stay put. Firefighters wearing breathing apparatus used six jets, one aerial monitor, and one aerial as observation platform, thermal image cameras and the drone team to tackle the fire and provide situational awareness.

A number of individuals were identified as unable to leave their properties as a result of fire and smoke. A total of 15 fire survival guidance situations were resolved over a 91 minute period. These consisted of individuals identified on scene as well as 3 fire survival guidance calls managed over phone lines via Brigade Control. LFB rescued 34 persons in total from the block using 22 smoke hoods. LAS Paramedics treated 37 residents on scene, and two persons were taken to hospital.

The flat of origin was approximately 80% damaged by fire, heat, and smoke. Fire spread externally up the building affecting balconies directly above on the 9th, 10th and 11th floors. The windows of the flat directly above on the 9th floor were also damaged by fire. External ACM cladding on the 8th and 9th floors was also involved, but in this case, the cladding did not significantly add to the fire's development.

All internal communal areas on the 8th floor were damaged by smoke, with fire and heat damage affecting the communal corridor around the entrance to the flat of origin. This was exacerbated due to the failure of the AOV¹⁴. This allowed smoke and the products of combustion to flow through the common parts of the 8th floor (and subsequently beyond) making it difficult for persons on this floor to escape safely, while increasing the challenges and risks for firefighting and search and rescue operations within the building.

¹⁴ During the incident, fire safety systems that should have supported both the safety of residents and firefighting operations did not perform as expected. This included the AOV, cross corridor door holders on the 8th floor, the Automatic Fire Detection (AFD) system (including panel) and the Firefighters lift. These circumstances are considered within Section 11.4 Fire Safety (Fire Investigation and Regulatory Investigation).

Based on the information available, the most probable cause of the fire has been determined as being an electrical fault potentially relating to a timer switch within the plastic consumer unit (fuse board) in the flat of origin. This is not currently thought to be a product defect/recall issue. Investigations are ongoing with the Fire Investigation team liaising with Trading Standards and the Office of Product Safety & Standards.

9 Summary timeline

This section provides a timeline of key events in the first seven hours of the incident. A factual narrative of the events between 08:55:31hrs and 15:37:14hrs is provided within the Operational Response Report (attached as Appendix 2).

Key individuals present at incident:

- FOXTROT, occupant of the flat of origin
- ECHO, a NPW employee, Ballymore Group
- ZULU, a NPW employee, Ballymore Group
- HOTEL, a NPW employee, Ballymore Group
- BRAVO, Temporary Sub Officer, IC 1
- ALPHA ECHO, Sub Officer, IC 2
- ALPHA FOXTROT, Station Officer, IC3
- WHISKEY, Station Commander, IC4
- TANGO, Deputy Assistant Commissioner, IC5
- CHARLIE, Assistant Commissioner, IC6
- Inspector VICTOR, Metropolitan police Service (MPS)
- WHISKEY and XRAY, Scientific Advisors (SA), Bureau Veritas (BV)

08:54:58 Initial call to fire at NPW.

08:58:01 ORD information provided to attending crews.

08:59:33 First appliance on scene (F221). Attendance time 00:03:37.

09:02:03 Second appliance in attendance (F231). Attendance time 00:06:07.

09:01:00 From Temporary/Sub Officer BRAVO Incident Commander (IC) 1 Make Pumps 10, persons reported, RVP Biscaine Avenue and Blackwall Way Tactical Mode Oscar (TMO).

09:05:25 Request LAS attendance for one Withheld under FOI act 2000 – s40 Personal information..

09:06:52 Sub Officer ALPHA ECHO IC 2, TMO.

09:07:03 Fire Survival Guidance (FSG) received – 1 adult. Smoke in Hallway, unable to leave.

09:07:16 Dedicated FSG pump set up.

09:14:00 Station Officer ALPHA FOXTROT IC 3, Make Pumps 15, CU3 ICP, TMO.

09:22:08 FSG received – 2 adults.

09:22:33 Station Commander WHISKEY IC 4.

09:27:39 Make aerials two, TMO.

09:32:32 Deputy Assistant Commissioner (DAC) TANGO IC 5, Make pumps 20, FRU 4, TMO.

09:33: 18 DAC TANGO mass evacuation now in progress, TMO.

09:41:33 Assistant Commissioner (AC) CHARLIE IC 6 now in attendance.

09:43:58 DAC TANGO IC 5, Declared Major Incident, mass evacuation in progress, all guidance to FSG calls to evacuate, TMO.

09:43:58 AC CHARLIE IC 6, TMO.

09:45:11 Make Command Units (CU) 3.

09:46:00 CU4 now FSG vehicle.

09:56:41 Make CUs 4.

09:59:01 FSG received from crews on scene.

10:12:07 Make Fire Rescue Units (FRU) 7.

10:13:08 Request drone team (already en route).

10:25:01 Tactical Co-ordination Group meeting scheduled.

10:29:45 Brigade Co-ordination Centre offered support of positive pressure ventilation.

10:38:26 All FSG calls concluded and communicated.

10:48:01 Local Authority Liaison Officer on scene.

10:54:05 Press liaison officer mobilised.

11:32:41 Fire surrounded, TMO.

11:35:57 Reliefs ordered.

11:46:21 FSG channel between Control and CU4 now closed.

11:55:45 MPS and LAS updated with METHANE message.

14:32:56 Major Incident stood down by LFB, TMO.

15:37:14 Stop. From AC CHARLIE at NPW, Fairmount Avenue, a residential high rise of 19 floors 180 x 20 meters partially clad in ACM cladding. High rise consists of 5 connected blocks A. Block D 30 x 20 meters, Flat number [REDACTED] on the 8th floor, 100% of four roomed flat damaged by fire, Flat [REDACTED] on 9th floor, 10% of 4 roomed flat damaged by fire, Flat [REDACTED] on 10th floor, 10% of 4 roomed flat damaged by fire. 15 FSG calls resolved. 34 persons rescued by Breathing Apparatus (BA) crews, 67 persons self-evacuated, **Withheld under FOI act 2000 – s40 Personal information.** [REDACTED]. All other persons assessed by LAS for smoke inhalation and shock by LAS discharged. **Withheld under FOI act 2000 – s40 Personal information.** [REDACTED]. One aerial as observation tower, one aerial as a monitor, 6 jets, BA, Thermal Imaging Camera, 22 smoke hoods used, drone in use, National Police Air Service, emergency evacuation of building implemented, high rise procedure implemented, major incident procedure implemented, BA main control, all persons accounted for, same as all calls, TMO.

10 Sequence of events (Based on information available at the time of writing)

The sequence of events outlined below was drafted using witness testimony gathered on scene by LFB Fire Investigation.

On the morning of the 7th May 2021, FOXTROT smelt burning opened the door to the small cupboard containing the consumer unit and saw the consumer unit (commonly referred to as a fuse board) alight. The fire had also spread to other items within the cupboard. Some of the burning items

fell out of the cupboard when the cupboard door was opened. FOXTROT attempted to call the concierge via the flat's internal telephone. At some point FOXTROT was aware that the smoke detector was going off but was not exactly sure when this started. FOXTROT made their way to the balcony of the flat, where attempts were made to call to persons at ground floor level. Following this FOXTROT evacuated the flat. (Source: Witness information FOXTROT)

FOXTROT believes that items may have inadvertently been knocked into the doorway preventing the front door to the flat from closing when escaping the fire. (Source: Witness information FOXTROT)

At approximately 08:47 hours, a NPW employee received the first report of smoke issuing from a balcony on the 8th floor.

At 08:48 hours, a second report of smoke issuing was received from a NPW employee. ECHO took the lift to the 8th floor with another employee. When the lift doors opened, there was thick black smoke in the lobby area; they could also hear a smoke detector actuating. They did not see if any doors were open or closed. The smoke was getting worse, so they exited the lobby onto the staircase. Smoke then entered the stairwell, but when the door closed it was still relatively clear. When ECHO exited the building, they were met by some of the waking watch personnel; ECHO directed them to the floors above and below the fire to evacuate the residents. (Source: Witness information ECHO)

At 08:54 hours an operative within the Fire Control Centre (FCC) called LFB. (Source: Witness information ECHO)

At 08:55 hours, LFB's London Operations Centre (LOC) received the first of 31 calls to this incident. The call was made by NPW FCC. In line with current procedures for this building, five fire engines and one turntable ladder (TL) were ordered to attend: F221 Poplar's pump ladder (PL) fire engine, F231 Millwall's PL, F451 Plaistow's PL, F251 Shadwell's PL, F331 Whitechapel's PL and E353 Old Kent Road's turntable ladder (TL). (Source: Browser of Operational System Status (BOSS))

At 08:58 hours, following the receipt of further calls to this incident, the LOC ordered a further three fire engines, one Fire Rescue Unit (FRU) and two Command Units (CUs) to attend the incident. The Fire Investigation Team were also informed. (Source: BOSS)

Prior to the arrival of LFB it is thought that in the region of 67 persons evacuated the building. (Source: Unknown)

At 08:59 hours and 3 minutes and 37 seconds after the first call, F221 arrived at the incident; Temporary Sub Officer (T/SubO) BRAVO assumed the role of IC. There was smoke emitting from an eighth-floor balcony and a large number of residents evacuating the building. T/SubO BRAVO ordered crews to collect four lengths of 45mm hose, High Rise Bag, thermal image camera (TIC), breaking in gear and breathing apparatus entry control board. Following the receipt of this information, the large numbers of persons evacuating and T/SubO BRAVO's knowledge of the building from a previous 'Premises Risk Assessment'/familiarisation visit, BRAVO made the decision to send an assistance message 'Make Pumps 10, persons reported'.

At 09:01 hours, LOC received this message and ordered further fire engines to attend. This ordering included the mobilising of Fire Investigation Unit (FIU) OK12, with Fire Investigators (FIs) ALPHA and INDIA. (Source: Witness Information T/SubO BRAVO and BOSS)

Crews made their way to the 6th floor with the aforementioned equipment. At this point, two further fire engines arrived at the incident. T/SubO BRAVO briefed SubO ALPHA/ECHO from F231 who took over as IC, ordering T/SubO BRAVO to make their way to the Bridgehead and control firefighting operations. (Source: Witness information T/SubO BRAVO)

Crews set the Bridgehead up on the 6th floor and following a brief from T/SubO BRAVO, the first breathing apparatus (BA) crew from F221 were committed; Firefighters (FFs) JULIET and KILO. Originally this crew's brief was to follow the right-hand wall and commence firefighting and search and rescue operations. They took a length of 45mm hose and set in on the 7th floor and from here made their way to the 8th floor. On arriving at the 8th floor, they could see smoke under pressure being pushed through side gaps of the door leading to the lobby area. They made access to the lobby area; the neutral plain (smoke horizon) was at floor level and visibility was zero. (Source: Witness information FFs JULIET and KILO)

At 09:06 hours, LFB received the first of multiple calls where FSG was given. Information stated there was smoke in the hallway.

At 09:07 hours a further FSG call was received from persons. F451 was designated as FSG pump with Leading Firefighter (LFF) LIMA given the role of FSG Commander. (Source: Witness information SubO ALPHA ECHO)

Information was passed to the 1st BA crew to change their brief and make their way to assist the persons who had made the FSG call. (Source: Witness information T/SubO BRAVO)

A second BA crew from F451 (FFs MIKE and NOVEMBER) was committed shortly after the first crew. This crew committed with a 45mm jet which was set in on the 8th floor. The crew was briefed to continue with following the right-hand wall to firefight and search & rescue. (Source: Witness information T/SubO BRAVO)

At this point the 1st BA crew heard cries for help and someone opened the door to one of the flats. Two persons were given smoke hoods by crews and told to remain in their flat. A further member of the public was located in the corridor and led to the relative safety of the stairwell, where they were assisted out of the building by Firefighters. (Source: Witness information T/SubO BRAVO)

The 1st and 2nd BA crews supported the evacuation of a number of persons leaving flats on the 8th floor. (Source: Witness information from BA crews and T/SubO BRAVO)

At 09:14 hours Station Officer (StnO) ALPHAFOXTROT took over as IC and sent an assistance message 'Make Pumps 15'. (Source: BOSS)

At 09:22 hours, Station Commander (SC) WHISKEY took over as IC. (Source: BOSS)

E353 TL arrived at the incident and were tasked by Station Commander (SC) WHISKEY with positioning the TL in front of the building and extinguishing the fire on the exterior face of the building. (Source: Witness Information Leading Firefighter (LFF) PAPA, E353)

Crews in BA undertook a number of rescues following standard and FSG calls received by LFB. SubO OSCAR from F211 had been tasked with overseeing these actions from the bridgehead. (Source: Witness information SubO ALPHA ECHO)

The 3rd BA crew to access the 8th floor QUEBEC and ROMEO made their way through the lift lobby and initially assisted two members of the public wearing smoke hoods to safety. Assisted by a second crew they advanced down the right-hand corridor. After a few metres they came to the cross-corridor door, which was in the closed position. They believed this was the door to the fire compartment due to the heat they could feel through the door. They cracked the door open slightly and felt immense heat. They were then able to see flames emitting from a doorway further down on the right-hand side. They described the heat as extremely intense making further access very difficult. They were aware that an TL was being 'got to work' and requested that the fire was partially extinguished by this appliance to assist their access. This information was relayed by T/SubO BRAVO. (Source: Witness Information T/SubO BRAVO)

Fire Investigation Unit OK12 arrived at the incident at approximately 09:23 hours. Large amounts of members of the public were gathered around the base of NPW and a well-developed fire could be seen on the 8th floor. FIs ALPHA and INDIA made their way to the base of NPW and recorded the fire's development and firefighting operations carried out by E353. FI's ALPHA and INDIA witnessed fire spread from the flat of origin and its timber floored balcony, igniting balconies on the 9th and 10th floors. (Source: Witness Information FI ALPHA)

At 09:27 hours, a second aerial appliance was ordered to attend. (Source: BOSS)

E353 (TL) used the appliance's monitor to extinguish the fire on the exterior face of the building; LFF PAPA cascaded water from the 11th floor, extinguishing the fire on the 10th, 9th and 8th floor balconies. Following this LFF PAPA checked that no LFB personnel, or otherwise, were within the flat of origin and directed the TL monitor into the flat. This extinguished the majority of the fire (approximately 09:30 hours). (Source: Witness information LFF PAPA)

Following the firefighting carried out by E353, the 3rd BA crew were able to access the flat of origin. When they got to the door of the flat of origin it was open. The majority of the fire had been put out by E353, however there was still a substantial fire within the kitchen area, which was quickly extinguished. (Source: FF's QUEBEC and ROMEO)

LFB LOC undertook a number of standard and FSG calls during this incident. A CU took over from the designated FSG pump and all calls were actioned and persons brought to safety by fire crews. It is believed that the number of persons brought to safety following FSG calls is 26. No persons rescued by LFB sustained any critical injuries. (Source: Witness information from FI ALPHA)

At approximately 09:25 hours Senior Fire Safety Officer (SFSO) SIERRA made their way to the Bridgehead. SIERRA was informed that conditions were smoky in the stairwell and that there was severe smoke logging in the 8th floor communal corridors and lobbies. SIERRA returned to the ground floor and operated the break glass call point that actuates the AOV within the stairwell. Assisted by a member of staff from the Ballymore Group, SIERRA made their way to the Automatic Fire Detection (AFD) Control Panel which is located between blocks A and B in the old FCC. The member of staff told SIERRA that works were being carried out on the system and it appeared that a temporary Control Panel had been connected to the system. The system was difficult to understand, and no further action was carried out. SIERRA returned to the bridgehead and in conjunction with T/SubO BRAVO, a BA crew was briefed to go to the AOV doors on the 8th floor and force these open. As soon as this was actioned, conditions on the 8th floor quickly improved. (Source: Witness information SFSO SIERRA)

At 09:32 hours Deputy Assistant Commissioner (DAC) TANGO took over as IC and sent an assistance message 'Make Pumps 20, FRU's 4, TMO'.

At 09:33 hours, DAC TANGO sent the following message 'mass evacuation now in progress'.

At 09:43 hours DAC TANGO sent the following message: 'this is now been declared a major incident, mass evacuation in progress, all guidance given to FSG is now to evacuate'. (Source: BOSS)

At 09:43 hours Assistant Commissioner (AC) CHARLIE took over as IC. The confirmation of take over was sent as part of the previous message sent by DAC TANGO, time stamped 09:43:58. (Source: BOSS)

At 10:12 hours, a 'Make FRUs 7' message was sent. (Source: BOSS)

In total 34 persons were rescued from block D by LFB crews, who led them to safety via the stairwell; 22 smoke hoods were used. London Ambulance Service (LAS) Paramedics treated 37 people, of which 35 were immediately discharged. Two persons were taken to Hospital. (Source: Witness Information LAS Paramedics)

At some point between 11:00 hours and 12:00 hours, SFSO SIERRA returned to the old FCC. (Source: Witness information SFSO SIERRA)

At 11:32 hours AC CHARLIE sent a message stating 'fire surrounded'. This indicated that the fire was fully under control and the incident would not be escalated further in terms of resources. (Source: BOSS)

At 12:17 hours, FI ALPHA requested the attendance of a further Fire Investigation Unit. OK15 was ordered to attend and arrived at the incident at 12:46 hours. (Source: BOSS)

At approximately 12:30 hours, Following agreement from the IC, Assistant Commissioner CHARLIE, DAC UNIFORM initiated a 'fire safety sector' which included both LFB Fire Safety and Fire Investigation teams to ensure a collaborative approach into the various fire safety related strands of this incident and to undertake liaison with Ballymore and residents with regards to fire safety matters.

SFSO SIERRA discussed the issues they had observed with regards to the AFD Control Panel and it was agreed that the AFD Control Panel would be seized by LFB Fire Investigation Officers as part of the investigative process. (Source: Witness information FI ALPHA)

At approximately 14:00 hours, FI ALPHA held discussions with Inspector VICTOR from the MPS. It was agreed that the physical scene examination and excavation of the fire scene to determine the origin and cause of the fire, would commence on the morning of the 8th May 2021 at 09:00 hours. The team would be made up of FI's from LFB and a Crime Scene Examiner (CSE) from the MPS in line with normal protocols for such fires. The MPS would secure the scene until this point. (Source: Witness Information FI ALPHA)

At 15:32 hours, a 'stop' message was sent stating 'A residential high rise of nineteen floors, one hundred and eighty metres by twenty metres, partially clad in Aluminium Composite Material cladding. High rise structure consists of five connected blocks, thirty metres by twenty metres. One hundred percent of a four roomed flat on the eighth floor damaged by fire. Ten percent of a four roomed flat on the ninth floor damaged by fire. Ten percent of four roomed flat on the tenth floor damaged by fire. Fire Survival Guidance calls resolved. Thirty four persons rescued by breathing apparatus crews and sixty seven persons self evacuated. Two adult xxxxxxxx, treated by London Fire Brigade crews xxxxxx. Both removed by London Ambulance Service. All other persons assessed for smoke inhalation and shock by London Ambulance Service and all discharged. [REDACTED]

Withheld under FOI act 2000 – s40 Personal information. [REDACTED] One aerial as observation tower, one aerial as a monitor, six jets, breathing apparatus, thermal imaging camera, twenty two smoke hoods used, Drone Team, National Police Air Service. Emergency evacuation of building, high rise procedure and major incident procedures all implemented. Breathing apparatus. All persons accounted for'.

During the afternoon of the 7th May 2021, FI ALPHA had a number of discussions with Ballymore employee, ZULU. ZULU stated that the Ballymore Group were hoping to conclude all checks within blocks A, B, C, E by the evening ready to re-house the occupants from these blocks. Residents from block D were to be relocated to a local hotel and later that day the residents of 171 flats were given temporary accommodation at the hotel. (Source: Witness information FI ALPHA)

Fire Safety Inspecting Officers and Fire Engineers remained at the scene until approximately 21:30 hours to systematically audit and check all fire safety facilities in blocks A, B, C and E, to ensure that from a fire safety perspective, they were safe to reoccupy. Representatives from Ballymore worked with LFB fire safety officers to remediate issues as they were found (e.g. sticking AOV doors). Crews from local fire stations remained on the scene to assist residents with recovering urgent personal items such as medication, and then maintained a presence throughout the night.

At 09:00 hours on the 8th May 2021, FI ALPHA returned to NPW and a multi-agency investigation team commenced work, which consisted of LFB FI officers, fire safety and fire engineering officers, LFB's consultant scientific adviser, the Metropolitan Police Crime Scene Examiner. The main scene examination continued through to the 10th May 2021. Various samples relating to the electrical system and exemplar items were seized for further laboratory analysis as part of the fire investigation process. The scene was also attended by Building Research Establishment (Fire Investigation and Expert Witness Services) and a forensic scientist appointed by insurers.

11 Areas of internal review and findings

11.1 Mobilising and Control

A full de-brief reviewing Brigade Control actions and findings was held with the Control staff who were on duty for the NPW incident on Friday 14th May 2021. The de-brief reviewed the response and supervision of the control room during the 20 pump fire and Major Incident, as well the management of Fire Survival Guidance activities from a Brigade Control perspective.

This incident saw the implementation of improved protocols, a dedicated communication channel and changes in Information Technology (IT) systems associated with the recently published PN: 790 Fire Survival Guidance policy. The purpose of PN: 790 Fire Survival Guidance is to explain what constitutes FSG and how these scenarios are managed by Control; and the incident ground. The policy provides guidance to ensure that:

- Information is exchanged between Control and the incident ground in a timely, accurate and consistent manner.
- An effective communication network is established and maintained between appropriate persons.
- The response at the incident ground to multiple FSG calls is prioritised appropriately and that suitable action is taken if the number of FSG calls is likely to exceed Control's capacity to receive them.
- FSG call information is accurately recorded and updated for use by ICs and retained to support analysis and investigation after the incident.

This section of the report provides key observations for both general management of this incident and the undertaking of the FSG coordinator role; from a Brigade Control perspective.

The protocols and systems implemented worked well in general with some organisational learning identified during this process.

Brigade Control received 17 calls in total involving life risk to the NPW fire. Two of the calls were from callers reporting individuals in the building (classed as PR), seven calls were from callers from inside the building who were advised to remain in their flats after they said they could not evacuate due to smoke in the corridor and three FSG calls (see footnote on page 4).

Key Observations – Control FSG Coordinator

Good Practice

- Point of contact for FSG messages was set up quickly at scene.
- Flow of communication was greatly improved and uninterrupted by normal radio telephony communications.
- Control was able to relay priority FSG calls with more information, including when an FSG call was becoming distressing for the call handler.
- Control were able to get updates on rescues with greater ease than previous communication protocols permitted.
- New procedure (PN: 790 Fire Survival Guidance) facilitated an uninterrupted point of contact between Control and incident ground.
- Informal speech allowed simple and clear communication.
- Direct contact with Bridgehead allowed faster and accurate transfer of information.
- Updates on FSG outcomes were easier to track.
- Control offered callers real-time updates and reassurance as rescue activities were received.

Organisational learning

- The transition period for Control when receiving multiple FSG's then switching to the new layout and nominating roles was time consuming.
- The new layout made it easier to view unsolved calls. Due to caller information being automatically updated, keeping track of what information the FSG coordinator had passed to the incident ground was a challenge; however, this was a significantly improved process over the previous system.
- Crews were unable to update FSG status' themselves. The FSG application, delivered Q4 2021, provides this functionality.
- Control received information on an additional flat from the incident ground which was communicated as an FSG but an update was not provided for some time; and no member of public made contact with Control to seek guidance. Similarly, two flats were communicated as 'clear' when concluding FSG. Control had no knowledge of these flats being involved. These scenarios should not have been classified as FSG by the incident ground.

- The transition from Control talking to the FSG CU and subsequently to the Bridgehead suspended the flow of communication for a brief period.
- After being notified that Control would shortly be speaking directly to the Bridgehead, there was a period of time where all three parties were talking; and it wasn't clear who Control should be addressing FSG messages to. Updates continued to be provided by a number of incident ground sources causing confusion.

Key Observations – Control

Good practice

- The new FSG layout provided a clear and improved picture of all calls originating from NPW at Brigade Control.
- An area of particular improvement was the ability for Control staff to review call history from residents and their locations originating at this incident. This enabled Control staff to gather and manage new information during repeat calls, rather than clarify information already provided – significantly expediting information gathering and sharing.
- LFB Control liaised with colleagues across all UK fire Control rooms to ensure they were sighted on the circumstances at the NPW fire. Recognising LFB were managing multiple FSGs, it was possible capacity may be exceeded and other Control rooms could receive calls from this incident. All other UK Control rooms were informed that; this incident was receiving multiple calls, the evacuation strategy had been amended (including the specific advice being given) and that this was a Major Incident. LFB has led the implementation of this communication network across UK fire and rescue service control rooms following the Grenfell Tower fire.
- Brigade Control also informed all key agencies of the incident and LFB actions via the London centric Airwave channel: ESICTRL¹⁵; available across all London partner control rooms.

¹⁵ Following the issuing of Joint Operational Learning (JOL) action note 2020/001 by the Joint Emergency Service Interoperability Program (JESIP), London control rooms are required to implement the Emergency Services Inter-Control Room (ESICTRL) Talk Group to be in continuous operation. It is intended to provide all emergency services control rooms in the Greater London area with the ability to notify each other and share information in response to a wide variety of major incidents or incidents of significance and support the five JESIP principles for joint working.

The following User Organisations will be involved in using the London ESICTRL Talk Group.

- British Transport Police (BTP)
- City of London Police (CoLP)
- LAS
- LFB
- Metropolitan Police Service (MPS)

- Brigade Control initiated the new FSG coordinator role, as outlined within the amended PN: 790 Fire Survival Guidance, providing a direct line of communication between Control and a dedicated FSG pump and/or Command Unit on scene. This role worked extremely well with positive feedback received via Control staff and those staffing FSG pump/Command Unit on scene.
- The FSG mobile application went live Q4 2021. This mobile application automates the sharing of FSG information between Control and the incident ground. This system speeds up information sharing and ensures the accuracy and type of information shared between locations.
- LFB Control have detached an Operations Manager into LFB Operational Policy & Assurance team (OP&A). This embed role has delivered cohesion between Control and operational staff; currently delivering maintenance of skills training and exercising around the amended PN: 633 High Rise Firefighting, PN: 790 Fire Survival Guidance and PN: 970 Evacuation and Rescue from fires in premises. Operational staff have provided positive feedback on the opportunity to practically apply the knowledge and understanding within these amended procedures, in realistic scenarios facilitated by Control embed.

Organisational learning

- There was a discrepancy between the number of specifically classified FSG calls managed between Control and the incident ground. This is as a result of sharing all information relating to life risk received between Brigade Control and the incident ground. It should be noted that all life risk information was accurately shared, however terminology differed between teams which caused confusion over the total number FSGs managed. i.e. the incident ground considered all instances of residents unable to self-evacuate a FSG; whereas Brigade Control clearly identified those individuals who were being directly affected by fire, heat or smoke as FSGs, and those unable to evacuate as those staying put and/or persons reported.

This situation has been identified from both a Control and Operational perspective and training is proposed to meet the knowledge gap in terminology. Similarly, the live FSG mobile application is designed to clearly share the different classifications of persons in need of support at an incident i.e. Persons Reported, FSG etc.

- Brigade Control, on receipt of the first FSG call, did not specifically mobilise Withheld under FOI act 2000 - s24 Nations CU, Station Commander and support pump. The rationale for this decision was that this [REDACTED]

LFB will circulate the following;

- All incidents requiring a HAZMAT level 2 or above response
- Fire that have multiple FSGs
- Where there is a requirement to share risk critical information to 999 callers
- Serious flooding that requires evacuations and disruption to infrastructure
- Any suspected /terrorist incident
- All incidents at Control of Major Accident Hazard (COMAH) registered sites
- All reports of Chemical Biological Radiological Nuclear (CBRN) incidents

had already been mobilised Withheld under FOI act 2000 - s24 National security. and therefore no additional resources would have been mobilised.

- The multiple FSG mobilisation (double that of the initial FSG PDA) was not mobilised to this incident. The rationale for this situation is that the scene had already requested additional CUs (and had sufficient officers/resources) to support operations and management of information. However, Brigade Control recognise the need to ensure appropriate FSG resources are mobilised automatically to avoid oversight under challenging situations. An internal system review is underway to explore automation of this function.
- Brigade Control staff stated they would have benefitted from the electronic Premises Information Plate (ePIP) being displayed on the large monitor at Control. This would have provided a quick and accurate understanding of building layout across the Control room and staff; enabling operators to cross reference location of persons and communicate this quickly to relevant officers on the incident ground. This software solution was implemented in Q1 2022.

Recommendations

- LFB Control to support delivery of FSG mobile application alongside LFB IT team. This system went live Q4 2021. This mobile application automates the sharing of FSG information between Control and the incident ground. This system should expedite information sharing and ensure the accuracy and type of information shared between locations.
- LFB Control to pursue the automation of FSG PDA for both initial and multiple FSG mobilisations.
- LFB Control to work with LFB IT team to provide software solution enabling the provision of ORI via ePIP on the main Control room monitors. Implemented Q1 2022.
- LFB Control team to continue the positive work with National Control rooms to ensure communications links remain robust and staff are trained in the requirement to inform colleagues of exceptional incidents which may be passed on to colleagues outside of affected fire and rescue service. This process is tested weekly at 11:00 hours and each fire Control takes it in turn to initiate and deliver test.
- LFB Control team to continue to train and embed London centric ESICTRL Airwave channel to inform London partner Control rooms of a range of incidents¹⁶.

¹⁶ **National Testing & Exercising governance** Compliance of the use and monitoring of the ALASESICTRL Talk Groups will be undertaken by Operational Communications in Policing (OCiP). The Home Office can also arrange for testing. Both bodies will report back to the Emergency Services Airwave User Group who have overall responsibility for national audit of the ESICTRL Talk Groups. Testing consists of a Monthly Airwave Interoperability Test on the first Tuesday of every month, initially on interoperability talk-group ESICTRL between each Control Room, before moving onto either ES1 or ES2 between Operational Commanders from each emergency service. The test involves a verbal check of each Operational Commander receiving each other on the chosen talk-group. Exercising takes place weekly on differing days, initially via ESICTRL between each Control Room, before moving to the multi-agency telephone conference call between each Control Room. The test involves the sharing of a METHANE report.

11.2 Operations debrief and command review

This section of the report presents findings in respect of both the Operations debrief and command review.

Operations debrief

LFB Operations debrief process allows individuals and teams to systematically analyse and evaluate the operational tactics employed during specific workplace activities with their colleagues and line managers. The process supports the identification of hazards and risks present at incidents and evaluate the control measures used to manage them; it is vital for operational learning.

The purpose of this type of debrief is to enable crews to provide feedback on their operational actions in terms of equipment and procedures. The process is supported by an aide memoire to enable watch officers to provide a standardised structure to a supportive, learning environment at fire stations. Due to the complexity of the incident at NPW a further facilitated thematic operations debrief was held at Brigade Headquarters, on the 4th June 2021, with key operational and Control personnel that attended the incident. This was conducted by trained LFB facilitators to support an effective debrief, an area highlighted by previous HMICFRS comments.

Staff who played a key role at the incident, ranging from IC 1, FSG pump OIC, CU crews through to Sector Commander Fire, were subsequently invited to attend the thematic operations debrief. A structured reflective learning aide memoire¹⁷ was provided to those involved and individuals were asked to focus their feedback on the general themes of high-rise firefighting, evacuation, and fire survival guidance.

The event lasted five hours and there was full participation of all 18 attendees: in an open, honest, and supportive environment. Findings from the recent command review, held on 21st May 2021, were introduced to attendees providing a more detailed understanding of how command decisions are implemented from an Operations perspective.

Command review process

The command review process evaluates the performance of the command function at larger incidents. The command review is an analytical process that allows all incident commanders to discuss, review, analyse and evaluate all aspects of their period in command. The command review is a structured chaired forum. The aim is to provide a constructive and supportive environment within which the performance of the command function can be discussed openly. The objectives are to identify good practice and how individual, team and organisational performance may be improved. To achieve this, the process provides feedback into the operational improvement process.

Additional exercising take place monthly, initially via each service's 999 call handling system, before moving to the multi-agency telephone conference call between each Control Room. The exercise involves sharing of incident information relating to a Marauding Terrorist Attack (MTA) incident.

¹⁷ The structured reflective learning aide memoire allows staff to record thoughts on personal performance and learning from an operational incident or exercise. This is based on Kolb's Experiential Learning Cycle and has been used during the debriefing pilot. The detail within reflective learning logs is confidential; staff have the option of sharing reflective learning with line management only if they feel it is of benefit to them.

75 observations were identified and recorded as a result of the facilitated thematic operations debrief and command review. Each observation has agreed considerations and recommendations. These observations are categorised across six themes;

- Mobilising and Control
- Incident Command
- FSG
- High Rise
- Evacuation
- Communications

Similar observations were amalgamated, resulting in 28 significant grouped observations; each with associated considerations and recommendations. The organisational learning points and subsequent recommendations can be found below.

Key Observations – Operations review

Incident Command

- ORD records were identified as supporting operations during the operations debrief and command review processes, the following findings have been observed:
 - 'Vision', the Brigade's mobilisation system, records initial crews accessed ORD information at 08:58 prior to arriving at the scene of the incident.
 - ORD records were complete, accurate and available for NPW.
 - IC1's report from the debrief (Operational and command review) was that ORD information, coupled with the knowledge gained from the familiarisation visit associated with gathering ORD information, directly supported their decision making throughout their time in charge.
 - Middle and Senior managers attending the scene accessed ORD information prior to mobilising in order to improve their situational awareness.
 - Mobile tablets were taken to the scene of operations (Bridgehead - BH) within NPW to provide ePIPs for operational planning purposes.
- Rapid changes of IC at the NPW incident (T/Sub Officer, Sub Officer, Station Officer, Station Commander, Group Commander, DAC and AC). Each handover presented an opportunity for information and situational awareness to be lost. This has been a recurring issue at several large-scale incidents and warrants further review.

FSG

- Control Information Forms could be simpler to complete and are at risk of being lost on the incident ground. Confusion over which forms/slips should go where, and which ones should be updated, existed at the NPW incident. Several Control Information Forms were left at the BH post incident. Crews reported that they were unsure how and where these forms should be stored post incident.

- Due to the delay of any Command Unit staff at the BH, Control Information Wallets were not used at the NPW incident. Consideration should be given to Control Information Wallets being allocated to all BA entry control boards.
- Local crews who had not had the additional multiple FSG training that CU staff have, had to manage the multiple FSG information at the BH as the CU crews were not in attendance at this stage of the incident. Training for multiple FSGs has only been given to staff at CU stations. The NPW incident highlights the likelihood that there may be a requirement to deal with multiple FSG's prior to the arrival of FSG CU crews. Therefore, enhanced training for multiple FSG's is required for all firefighters, not just CU crews.
- Runners are not an efficient way of communication at a high rise/complex building. Runners passing information across the incident ground were at the limits of physical exertion. Fireground radio channel 3 did not work at the NPW incident. Consideration should be given to the issue of an Airwave handheld radio per appliance to mitigate the need for runners.
- Despite the NPW building having a simultaneous evacuation policy, Control were required to provide reassurance to occupants where the resident felt they could not leave. This presented problems in communicating this situation to the fire ground; and recording this information for crews to act upon.
- FSG pump quickly became overloaded and ran out of runners.
- By the time FSG CUs were ready to deploy, the FSG numbers were reducing and the FSG CU staff were not required to undertake this function.
- Only one Forward Information Board (FIB) was delivered to the BH. This did not happen until much later into the incident despite being requested.
- From a fire ground perspective, personnel felt that feedback to Control on FSG progress could be improved; crews reported there was a disconnect between FSG and Fire sectors. Control's perspective was very positive, so far as the information being fed back to Control. They felt much more information was being received from the fire ground and the free speak channel worked very well.

High Rise

- Simultaneous evacuation potentially causes residents to leave a place of relative safety to smoke filled parts of the building including staircases. Some residents did not want to leave, and a number of residents refused.
- Too much noise and congestion was reported at the BH.
- Crews lacked the knowledge and confidence to know if the AOVs had operated correctly, and to what extent operating the AOVs may have supported operations earlier in the incident.
- NPW had a room providing AOV controls and keys for all flats. LFB staff were not made aware of, and subsequently were not sent to this area until the latter stages of the incident.

- Good liaison with the concierge was reported. The concierge was able to supply a list of all residents which greatly assisted FSG management.
- Some LFB staff felt that the term 'Lobby sector' is misleading. Staff suggested the sector should be renamed to 'Coordination sector' as it better describes the role of the sector.
- The Lobby sector commander reported their workload was extremely difficult to manage as the sector had far reaching demands.

Evacuation

- Crews recorded information regarding flats and occupants that had left their properties on the internal walls of the building, using chinagraph and an improvised table. No FIBs were available at the time this information was made available.
- Residents were seen making their way down the staircase by themselves wearing fire escape hoods; this included to the BH and below.
- Collation of the evacuees was deemed to be too complex a job for any specific sector commander i.e. Lobby or Search. This requires further review.

Communications

- Fire ground radio Channel 3 was not effective at the NPW incident, this resulted in Channel 1 becoming overwhelmed by the amount of radio traffic.
- Crews expressed concern that setting up early alternate radio channels is likely to lead to a loss of situational awareness on other channels.
- Fire ground radios lost signal consistently when transmitting to the BH.
- Staff proposed Airwave radios be given to sector commanders and ICs to aid communications. Staff suggested handheld Airwave radios be made available on all appliances to support early implementation of robust communications.
- Staff suggested LFB use Airwave radios on a point to point system to improve communications e.g. BH to IC.
- Inadequate communication via handheld radios resulted in the use of personal mobile phones.

Recommendations

- A presentation has been designed to provide all staff groups with an overview of the New Providence Wharf incident. The presentation highlights both good practice and learning outcomes. The presentation will be delivered to the following LFB personnel:
 - Fire Station
 - Fire and Rescue Staff

- Regulatory Fire Safety
- Control
- Operational Policy and Fire Safety to ensure that all personnel are sufficiently aware of how fixed installations operate, when they are operating correctly and how to report incorrect operation during inspections and at an incident.
- OP&A to review existing procedure for handover of command to determine whether potential exists to reduce the number of transitions between officers.
- OP&A to amend FIRE system for initial deployment at high-rise incidents to include appliance tablets in equipment taken to bridgehead. This will assist in access to ORD and ePIP information to support situational awareness.
- OP&A to review roles and responsibilities of lobby sector commander, including coordination of staging area, stairwell below bridgehead and forward logistics, to ensure role is understood and provides appropriate spans of control for staff.
- OP&A to incorporate initial coordination of evacuation and impact on search and rescue activities into defined Evacuation Officer role. This will include coordinating with other agencies at scene to maintain a clear understanding of where all residents are and to avoid duplication of search and rescue activities.
- OP&A to support the national working group review of vertical sectorisation to ensure responsibility for stairwell management is clearly defined. OP&A will consider the provision of interim guidance for a stairwell sector while this working group continues.
- OP&A to consider more flexible use of Airwave talk groups to improve communications capacity at large or complex incidents. It is recommended to provide clearer guidance on using talk groups at incidents, and ensure staff understand the benefits of this.
- OP&A to consider issue of Airwave handheld radio per appliance to assist with early stages of multi-FSG incident and mitigate the need for runners.
- OP&A to provide Control Information Form wallets to all BA entry control boards to facilitate tracking of crew deployments for FSG prior to arrival of Command Unit crews.
- OP&A to review Control Information forms in line with the FSG app information categories to fully align with Control information gathering protocols to improve the speed and efficiency of information recording.
- OP&A to review Forward Information Board to align to FSG app information categories, and also review FIB format itself to ensure it is suitable for use from the initial stages to avoid recording on other surfaces.
- The speed at which multiple FSG calls were received meant that crews had to handle them prior to the arrival of sufficient CUs to create a bridgehead CU FSG team. Following the improvements to the FIB/CIF equipment identified above, and the deployment of the FSG app,

it is proposed to ensure that all station level staff are trained to resolve the numbers of FSG calls encountered at the speed they arose at NPW.

11.3 Strategic response arrangements

This section of the report presents findings in respect to the Strategic Response Arrangements (SRA) associated with the incident at NPW 7th May 2021. This section provides a timeline relevant to SRA implementation and key findings from the day, alongside proposed actions and where relevant any amendments to the SRA Policy.

Background

The Brigade has long standing strategic response and business continuity arrangements in place to deal with disruptions to service, major incidents, or significant incidents such as those involving a Counter Terrorist (CT) response. It is essential for ensuring that the plans and procedures in place to manage disruptive events are fit-for-purpose, that staff have the necessary knowledge and skills to undertake their assigned roles and responsibilities, and that the Brigade is continually reviewing and improving its procedures. As a Category One responder, the Brigade also has a statutory duty under the Civil Contingencies Act (2004) to have business continuity arrangements in place, and to regularly review those arrangements through staged exercises.

The Brigade's SRAs provide a flexible framework which outlines the core structures and key processes that the Brigade can stand-up during major incidents and business disruptions to facilitate the management of its:

- Internal operational response - management of frontline services.
- Multi-agency response - coordination with partner agencies.
- Business continuity response - maintenance and recovery of critical activities and key services.

The extent to which each of the Brigade's core structures is stood up can be adapted in accordance with the nature, scale, impacts and likely duration of the incident.

The seven core structures that make up the Brigade's SRA are as follows:

- Commissioner's Continuity Group (CCG)
- Duty Assistant Commissioner (AC1)
- Gold Commander (Fire) (GC)
- Brigade Coordination Centre (BCC)
- Brigade Coordinating Manager (BCM)
- Gold Support Team (GST)
- Continuity Management Team (CMT)

The duty Brigade Manager¹⁸, Commissioner, Deputy Commissioner Operational Delivery and Assurance, Director of Corporate Services, Director of Transformation, Director for People and the duty Assistant Commissioner (AC1) (normally in liaison with the duty Brigade Manager) can implement the SRA.

Any incident which activates the SRA is normally followed by a debrief to identify any lessons learnt and to agree actions for improving policies and plans.

The purpose of this section of the report is to present a summary of the activation of the SRA. The report outlines the key findings from the exercise, and proposed amendments to improve the SRA based on the learning obtained from the exercise.

Timeline

The critical points in the incident timeline are outlined below:

- **08:55:31** First call into Control
- **09:15 - 09:45** Principle Officers notified
- **09:41:33** AC arrives on scene
- **09:43:58** Major Incident declared
- **13:00:00** First CCG Convened
- **14:32:56** Incident stood down as Major Incident

SRA – Debrief

Below are the sections taken from the SRA relevant to the incident response.

SRA activation

The decision to activate the Brigade's SRA should ideally be taken collectively by the CCG.

However, if urgent action is required and delays in waiting for CCG to convene would negatively impact on the Brigade's immediate emergency response, e.g. during an MTA, then the following officers have the authority to individually activate elements of the SRA:

Commissioner, Deputy Commissioner Operational Delivery and Assurance, Director of Corporate Services, Director of Transformation, Director for People and the duty Assistant Commissioner (AC1), Duty Business Continuity Coordinator.

Wherever possible, consultation with the duty AC should take place prior to activating any SRA structures.

¹⁸ Duty Brigade Manager refers to the Senior Manager (Commissioner or Deputy Commissioner) on duty, as per the StARs rota, during an incident. The duty Brigade Manager will assume overall responsibility of the Brigade during an incident. However, the Commissioner may decide to assume responsibility at any time.

As a general rule, the decision to activate the SRA will be taken if the Brigade declares a major incident, for which one or more of the following conditions will normally apply:

- The incident, event or situation requires an enhanced level of management coordination.
- The incident, event or situation poses a serious threat to human welfare.
- The incident, event or situation threatens serious damage to the environment.
- The incident, event or situation constitutes as an act of war or terrorism and threatens human welfare, the environment and/or national security.
- The incident, event or situation threatens the organisation's ability to perform its critical functions.

Incident notification

The following section sets out two key mechanisms through which Brigade officers may be notified of a major incident - (1) via Brigade Control; (2) via the London Resilience Partnership.

Brigade Control notification

On becoming aware of a potential major incident, Brigade Control will notify relevant officers via pager as per Mobilising Policy – PN: 412, including: Commissioner, Deputy Commissioners, Director, duty Assistant Commissioner (AC1), duty DAC, duty Press Officer, Officer of the Day, London Resilience Group, duty Emergency Planning officer, duty LLACC Manager, Staff Officers, Advice and Wellbeing and the duty Business Continuity Coordinator.

However, Control will NOT notify non-operational Heads of Service (HoS1) of a potential major incident. The duty Business Continuity Coordinator, under the instruction of the CCG, is responsible for notifying HoS, if required.

Convening the Commissioner's Continuity Group (CCG)

As soon as the Brigade has been alerted of a significant event or potential major incident an initial CCG meeting should be convened as soon as possible (in person or via teleconference).

To convene a CCG meeting, either a member of the Commissioner's Secretariat or the duty Business Continuity Coordinator (see LFB Business Continuity Staff directory or page via Control) should be instructed to notify all required attendees of the meeting time and location. Following the declaration of a major incident 09:43 the Commissioner's (also acting as Brigade Manager) staff officers contacted the Duty Business Continuity Coordinator (11:48) who convened a virtual CCG via MS Teams.

Key response actions completed at CCG for incident at NPW

All significant incidents	X/?
Commissioner's Continuity Group convened – 13:00 07/05/2021	Yes
All relevant officers notified (Duty Brigade Manager, AC1 / AC2, Comms Rep etc.)	Yes
Loggist assigned – Minutes [REDACTED]	Yes
Incident details confirmed (type, nature, likely duration and impacts)	Yes
Major Incident Declared: Y / N Lead Agency: LFB LFB Major Investigation Policy activated: Y/N	Yes
Immediate incident impacts assessed	Yes
Response strategy agreed	Yes
Strategic aims / objectives agreed	Yes
Immediate actions agreed (ensuring staff H&S)	Yes
Communications Strategy (internal and external) agreed	Yes
Timings of CCG meetings agreed Frequency: Next meeting: To be reviewed based on the continuing impact of incident.	No
Internal operational incidents	
Brigade Coordinating Centre stood-up: BCC stood up but not activated Location agreed: HQ / LOC / Other	Yes
Brigade Coordinating Manager Assigned Officer:	N/A
• Communications Cells Lead:	N/A
• Operations cell Lead:	N/A
• Resource cell Lead:	N/A
• Planning cell Lead:	N/A
Partnership notified Duty London Resilience Manager:	Yes
Multi-agency incidents	
Lead agency: LFB	N/A
Partnership liaison initiated : Y/N Partnership Rep:	Yes
Gold Commander Fire nominated Officer:	N/A
Gold Support Team convened Lead:	N/A
Strategic Coordinating Group attended Officer: Time:	N/A
London Communications Gold attended Officer: Time:	N/A
Common Operational Picture submitted Lead: Time:	N/A
Business continuity incidents	
Corporate Business Continuity Plan activated	No
Continuity Management Team (CMT) stood-up Chair:	No
Frequency and timing of CMT meetings agreed Frequency: Next Meeting:	N/A
Departmental Business Continuity Plans activated	N/A
Situational Reporting (SitReps) activated Frequency: Next SitRep:	N/A

Key response action – summary notes from CCG

- **Incident details confirmed (type, nature, likely duration and impacts)/immediate incident impacts assessed:** CCG minutes - Section 1, c. Incident Overview.
- **Major incident declared:** A major incident was declared by (AC * under PN: 263 Major Incident Procedure at 09:43:58).
- **LFB Major Investigation Policy:** CCG minutes - Section 2. Situation Update, c. Consider activation of LFB Major Investigation Policy.

LFB Major Incident Investigation policy not to be implemented in this instance as the incident did not meet the triggers for a full investigation in terms of scale, resource requirements etc. the command review and operational debrief were instructed to take place covering all areas of the response and actions around the incident, the debriefs were coordinated with the oversight of specific leads and a unified debrief report is to be drafted covering the incident at operational, tactical and strategic level – this is the purpose of this report.

- **Response strategy agreed:** CCG minutes - Section 1, c. Incident Overview

Due to the fast-paced nature of the incident and covered by the incident overview the response strategy was agreed at incident commander/AC level as per PN: 699 London Fire Brigade strategic response arrangements (Gold Command).

- **Strategic aims/objectives agreed:** CCG minutes - Section 2, a. Latest position (including update on incident/event).

The strategic aims were discussed in this section, due to the incident being under control at this stage the aims focused around the continued operational response, welfare of staff involved in all level of the incident and engagement /communications.

- **Immediate actions agreed (ensuring staff H&S):** As above.
- **Communications Strategy (internal and external) agreed:** CCG minutes - Section 2, a. Latest position (including. update on incident/event).

Details of the current and post incident communication strategy was agreed noting the interest in the incident in context of the Grenfell Investigation and heightened interest from groups and government.

- **Timings of CCG meetings agreed**

Due to the expectation the incident would be stepped down from a Major incident focus was on post incident business as usual and the command review/operations debrief as well as the communication

strategy. It was decided the decision to hold a second CCG would be made if it was deemed necessary.

- **Internal operational incidents** Brigade Coordinating Centre stood-up:

A BCC was prepared as a back-up to support operations but wasn't required.

- **Multi-agency incidents** Lead agency LFB

CCG minutes - Section 2, b. Consideration of Major Incident Protocol Commissioner.

LRG had used its regular partner meeting at 12.30 on a Friday to update the partnership on the incident with a briefing. It was agreed a SCG for the incident isn't required, and that a partners GOLD call that had been pre-arranged for 14.00 on the same day could pick up any updates to the status of the incident.

- **Business continuity incidents**

Due to the incident being managed within business as usual there were no significant impacts on critical activities to trigger the need for a separate CMT to be convened.

Key Observations – SRA

Good practice

- Principle managers were notified of the NPW incident and briefed on it within the first hour. Roles as described in the SRA were assigned and there was a high level of discipline within roles including appropriate contact with tactical commander at the incident.
- Decisions concerning the set-up of the BCC, the requirement for an overarching media plan and to hold a CCG were taken early. This enabled LFB to proactively brief partners and stakeholders in anticipating heightened interest due to the nature of the incident.
- The initial CCG made and recorded the decision not to stand up elements of the SRA whilst also giving an extra level of assurance to the Brigade Manager that the organisation was largely unaffected by the incident.

Organisational learning

- **Initial virtual coordination of BCC and CCG.** Early use of virtual meetings (via MS Teams) resulted in the initial administration, information gathering and contacting of staff taking place in a short period of time. Managers and teams were subsequently able to determine, within their respective roles, the most effective way of working quickly and efficiently. Staff were able to undertake core functions remotely, without the delay caused by travelling to a physical location to set up those functions. This virtual meeting technology improvement to be incorporated into ongoing SRA review.

- **Initial notification process.** A number of officers responsible for undertaking defined roles within the SRA became aware of the incident within the first hour. This was as a result of early communication through coincidental direct contact and informal communication (such as WhatsApp). Other staff such as Directors and HoS were notified as per SRA and CCG arrangements. Whilst all relevant LFB staff were on this occasion notified promptly of the NPW incident, it is important to ensure that agreed SRA notification protocols are utilised to alert relevant staff of incidents meeting SRA criteria. Formal notification process to be reviewed.
- **Tripartite discussion.** The SRA refers to the Duty London Resilience Group (LRG) officer being made aware of a major incident. As above, it is important that they are alerted alongside other officers included on LFB Daily Bulletin. Greater clarification is required on the responsibility to update and advise the duty LRG officer, especially in the early stages of a fast-paced incident; to ensure tripartite conversations are initiated at the appropriate levels of command. It should be clear how these expected conversations are to take place. Further review of strategic command role expectations (Gold/Strategic level commander (AC1) to be carried out as part of current SRA review.
- **SRA Training/Command review procedure.** The SRA was stood up quickly and most roles defined in the first hour prior to the CCG being convened. The CCG was effective and well chaired. The effectiveness of the CCG, and other parts of the SRA, are dependent on clear guidance and the experience of staff.

Training in the form of SRA workshops for Top Management Group (TMG) is to be prioritised to coincide with the role out of the revised SRA policy. This will ensure Continuous Professional Development (CPD) for all TMG (who may be expected to perform the essential SRA roles); and to maintain the organisational knowledge transfer between experienced staff and those less so.

- **Enhanced Communications with key stakeholders.** Prior to the CCG being convened the scope and level of media/stakeholder interest in the NPW incident was identified. As a result, the Interim Director for Communications was tasked with driving an all-encompassing communications plan. This allowed LFC to retain a level of control over media requests and undertake briefings to all stakeholders, ensuring accuracy and consistency of information. This timely grip and control of communications, driving a clear 'One voice' strategy, from the early stages of this Major Incident should be captured in the current SRA review.

Additional clarity should be provided within the SRA policy as to key stakeholders and communication methodologies (list of contacts and considerations for the Brigade Manager); to ensure all relevant key stakeholder briefings are carried out in a timely manner.

Recommendations

- Review notification process with AC Control & Mobilising to ensure notification procedure is contained in relevant Control policy and training (notification refers specifically to the trigger/threshold for formal notification of the on-call duty staff as listed on the Daily Bulletin).

- Review and clarify process for initiation of tripartite conversations at relevant command levels.
- Review utility of providing a duty loggist for SRA support.
- Review and amend LFB PN: 699 Strategic Response Arrangements (Gold Command).
- Within the SRA policy review, capture and consolidate the use of remote/virtual meeting arrangements for early and dynamic CCG/BCC functions. This will ensure the effective use of resources and that the Brigade stay ahead of the decision-making curve for the management of dynamic/sudden impact incidents and/or protracted incidents.
- Training in the form of SRA workshops for TMG is to be prioritised to coincide with the roll out of the revised SRA policy.

The amended SRA review will:

- Create a streamlined policy that will not have duplication from other policies i.e. content around major incident procedure, where appropriate this information will be signposted via hyper link.
- Align SRA with National Operational Guidance.
- Clarify roles and responsibilities, including systems of building flexibility around roles and responsibilities and communication methodologies.
- Provide a clear communications structure and ensure 'one voice' approach for communications strategy when SRA arrangements initiated.
- Amend SRA key contact section to provide clarity and guidance for key stakeholder briefings.
- Provide updated, easy to follow flow charts highlighting implementation and subsequent actions.
- Replace 'Advice and Wellbeing' with 'Counselling and Trauma'.

11.4 Fire Safety (Fire Investigation and Regulatory Investigation)

Origin and cause of the fire

Based on the information currently available, including witness information and detailed scene examination conducted by LFB, LFB's consultant scientific advisor and the Metropolitan Police Crime Scene Examiner, the point of origin for the fire has been determined as being the electrical consumer unit (commonly known as a fuse board). Following the multi-agency scene examination, the fire will be recorded as being an accident, with no evidence to indicate a deliberate act being found. The

most probable cause of the fire has been determined as being an event within the consumer unit, which then resulted in its plastic enclosure/casing catching on fire and then in turn spreading to other combustible materials.

The use of plastic enclosures/cases for consumer units within buildings of this age is common. LFB in partnership with stakeholders have previously highlighted their concern about the flammability of such enclosures and this led to a new regulation (BS7671) requiring consumer units and similar switchgear assemblies in domestic premises to have a non-combustible (e.g. metal) enclosure which was implemented on 1st January 2016 (but was not retrospective).

Evidence from other flats within block D have highlighted an area for further investigation with the use of timing switches within the original configuration of the consumer unit. The timing switches were used to supply an immersion heater within the hot water cylinder and work is underway to confirm the timer switch's suitability to be connected to such an electrical load, or if any other issues exist that relate to public safety.

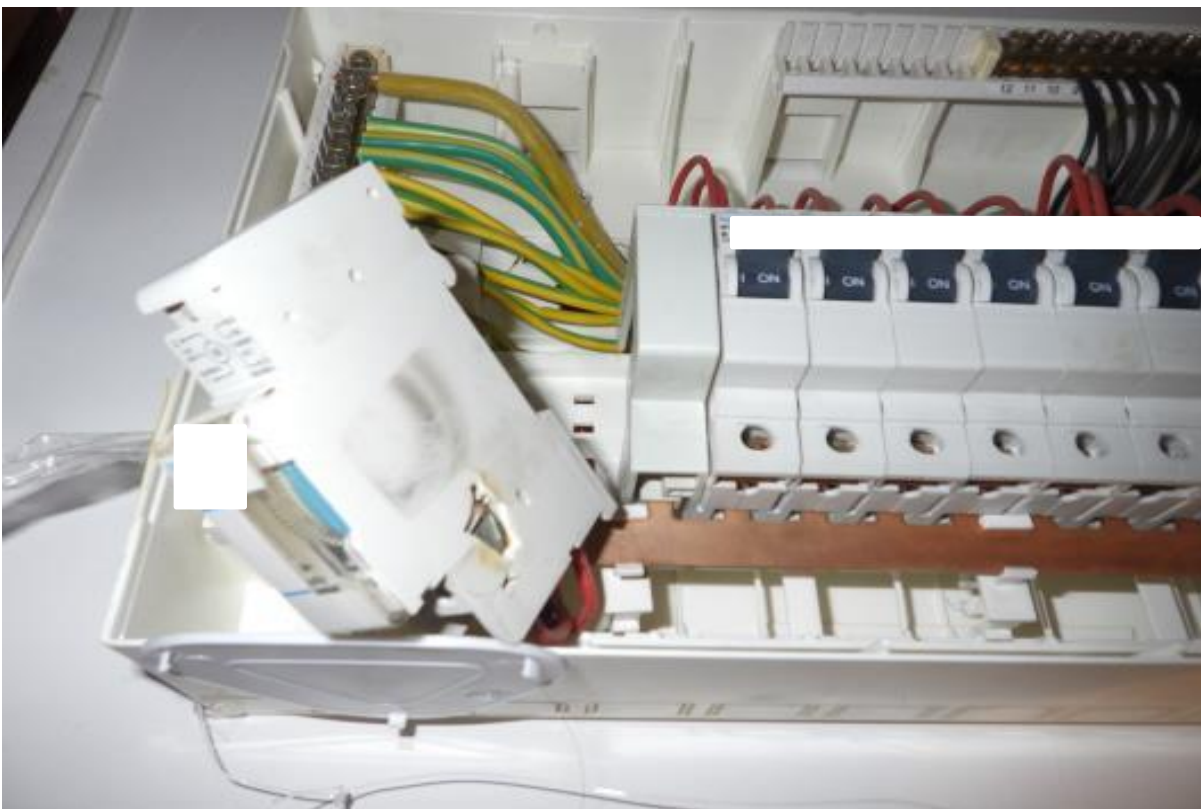


Image showing an exemplar plastic consumer unit found in flat on 9th floor with an internal heating fault on the Timer Switch

Fire development

Once ignited, the plastic case of the consumer unit would lead to burning droplets igniting other combustible items within the cupboard. A number of burning items fell out from the cupboard containing the consumer unit when it was opened and the fire was discovered, preventing the cupboard door from closing. Due to the balcony door being open and the likelihood of items being inadvertently knocked in front of the flat door preventing it from closing, the additional airflow would have supported the fire's development.



Images showing the front entrance (looking from outside) and hallway (looking from inside) of flat. Note the remains of the door to the left of the doorway

The smoke detectors within block D's common parts should have operated the AOV and cross corridor doors on the 8th floor, However, it is known that none of these systems actuated. This allowed smoke and the products of combustion to flow through the common parts of the 8th floor (and subsequently beyond) making it difficult/impossible for persons on this floor to escape safely, while increasing the challenges and risks for firefighting and search and rescue operations within the building.



Images showing the 8th floor corridor looking towards the flat of origin

Fire was also able to travel externally from the 8th to the 11th floors after spreading through the open balcony door of the flat of origin.



Image showing the external fire damage on the 9th and 10th floors

The timber decking of the balcony supported the external flame spread up the outer face of the building. Although some ACM panels were involved, in this instance they did not significantly contribute to the external spread of the fire.



Image showing the construction of an undamaged balcony



Image showing the charring to the underside of the 9th floor balcony timber decking



Image showing the damage to the ACM cladding between the 8th and 9th floor windows

Community Safety considerations

The flat of origin had a mains/hard wired smoke detector within the hallway and a mains/hard wired heat detector within the kitchen. The detector in the hallway appeared to operate as expected. However, as the fire started in a cupboard containing the consumer unit, the fire had the opportunity to develop undetected.

On the day of the fire, local fire crews worked with representatives of Ballymore to assist residents to help recover important personal effects and items such as medication, pending their return to their homes. Once the fire was brought under control, teams of LFB Fire Safety Inspecting Officers and Fire Engineers commenced an audit and inspection of the unaffected blocks - A, B, C and E - to provide reassurance to residents that the fire safety features were fully functional. Several issues were identified by LFB officers and subsequently rectified by Ballymore contractors prior to the reoccupation of the blocks by residents on the evening of the 7th May 2021.

During the two days immediately following the fire (8th & 9th May 2021), local firefighters and officers, joined by LFB's Community Engagement Manager, distributed over 2000 leaflets to provide advice on fire safety matters and carried out some meaningful engagement with not just the affected block at NPW, but also all of the surrounding high rise residential blocks.

Additionally, two online events were held to listen to the concerns of the residents of block D, NPW, with additional advice and fire safety messages being provided by LFB Borough Commander for Tower Hamlets. Residents were also signposted to LFB's online home fire safety checker and offered home fire safety visits. Further engagement activities are planned with the Tenants Residents Association for NPW.

Matters relating to concerns about the consumer unit and timer switch and advice on potential mitigating measures were passed to Ballymore as the 'Responsible Person' so that this could be acted

upon and communicated accordingly. Checks were made of both the consumer unit and timer switch to ensure that neither were subject to a product safety recall notice.

The use of plastic enclosures/cases for consumer units of such an age is very common. LFB in partnership with stakeholders have previously highlighted their concern about the flammability of such enclosures and this led to a new regulation (BS7671) requiring consumer units and similar switchgear assemblies in domestic premises to have a non-combustible (e.g. metal) enclosure which was implemented on 1st January 2016 (but was not retrospective).

Fire Safety Regulation considerations

During the incident, fire safety systems that should have supported both the safety of residents and firefighting operations did not perform as anticipated. This included the AOVs, cross corridor door holders, the AFD system (including panel) and the Firefighters lift (firefighters reported that whilst the Firefighters lift was taken control of, it did not perform as expected during the incident).

A coordinated on-site fire safety response was instigated which included LFB Fire Investigators, Senior Fire Safety Officers, Inspecting Officers and Fire Engineers. One AFD panel was seized by Fire Investigation Officers as evidence. Evidence was gathered during the day in order to feed into the post-fire investigation conducted under the RRO.

The detailed investigation under the RRO is extensive, taking some months to complete. LFB Inspecting Officers and Fire Engineers attended NPW on Monday 17th May 2021 following the remediation of block D and carried out a thorough audit and inspection in conjunction with Ballymore representatives. The 8th floor remained off limits due to extensive renovations being required but the rest of the block is fit for reoccupation from a fire safety perspective and this was communicated to Ballymore on the day.

A Notice of Deficiencies¹⁹ (NOD) was due to be issued due to some minor general issues that were not considered to be significant, however Ballymore rectified all matters identified within 48 hours negating the need for a NOD to be issued.

The regulatory investigation process relating to NPW is ongoing due in part to the complexity of the case. All appropriate remediation action relating to fire safety measures that supported the reoccupation of the development post-fire, were undertaken in a timely manner by the Ballymore Group.

¹⁹ The Notification of Deficiencies (NOD) document is not an Enforcement Notice. It identifies deficiencies which are required to be addressed to meet legal obligations under the RRO and is issued by the Authority before any formal enforcement action is taken.

Key Observations – Fire Safety

Good practice

- LFB PDA and incident command team facilitated early attendance and instigation of fire safety and investigation activities. This is evidenced with the initial arrival of Fire Investigation unit OK12 (09:23 hours). FIs ALPHA and INDIA recorded the fire's development and firefighting operations carried out by E353. FI's ALPHA and INDIA witnessed fire spread from the flat of origin and its timber floored balcony, igniting balconies on the 9th and 10th floors.
- A Senior Fire Safety Officer was able to identify issues with the smoke control system advised operational crews to force the AOV door in order to help clear smoke.
- At approximately 12:30 hours, a 'fire safety sector' was implemented which included both the LFB Fire Safety and Fire Investigation teams to ensure a collaborative approach into the various fire safety related strands of this incident and to undertake liaison with Ballymore and residents with regards to fire safety matters. One AFD panel was seized as part of the fire investigation. The detailed investigation under the RRO is extensive and is expected to be protracted, taking some months to complete. Key investigation work includes identifying and interviewing witnesses, serving Article 27 notices to request the provision of evidence, analysing data from the AFD panel, examining information from fire crews and reviewing existing documentation. A case conference is planned for August 2021 to determine if there is evidence of offences under the RRO. If so, formal investigation processes into the potential offences will proceed.
- On the day of the fire, local fire crews worked with representatives of Ballymore to assist residents to help recover important personal effects and items such as medication.
- During the two days immediately following the fire (8th & 9th May 2021), local firefighters and officers joined by LFB's Community Engagement Manager distributed over 2000 leaflets to provide advice on fire safety matters and carried out meaningful engagement with the affected block and also all of the surrounding high rise residential blocks. Additionally, two online events were held to listen to residents of block D NPW concerns and additional advice and fire safety messaging was provided by LFB Borough Commander. Fire Safety have continued to work with both LFB Borough Commander and Community Engagement Manager, attending resident meetings to answer questions and to provide updates on the fire safety work in progress. Further wider engagement has already been planned.
- Matters relating to concerns about the consumer unit and timer switch and advice on potential mitigating measures were passed to Ballymore as the 'Responsible Person' so that this could be acted upon and communicated accordingly, as they sat outside of the RRO.
- LFB have developed close links with the Office of Product Safety & Standards (OPSS), the regulator for product safety, and have been able to share intelligence about the electrical timer switches. The OPSS have also facilitated contacts with relevant Trading Standards teams who will be working with investigators to determine if there are any product safety issues relating to the fire. This will be reported on in due course.
- LFB Inspecting Officers and Fire Engineers attended NPW on Monday 17th May 2021 following the remediation of block D and carried out a thorough audit and inspection in conjunction with

Ballymore representatives. A NOD was due to be issued due to some minor general issues that were not considered to be significant, however Ballymore rectified all matters identified within 48 hours negating the need for a NOD to be issued.

- Following the fire, Fire Safety made checks of all known Ballymore high rise stock in London (with a focus on the developments in close proximity to New Providence Wharf) to ensure that a recent or new audit has been conducted.
- LFB are currently piloting Fire Safety Checks as part of Visual Audits. These visits are a key part of the Brigade's response to the recommendations of the Grenfell Tower Inquiry Phase One report and 2019 HMICFRS Inspection.

Crews will be visiting premises covered by the RRO, offering business owners and responsible persons advice and guidance, and passing on the information gathered about risk to colleagues in Regulatory Fire Safety. This work will also help increase station-based staff knowledge of Fire Safety.

- LFB have developed and introduced (June 2021) a fire safety course (L3i Fire Safety) for operational staff at fire stations. The course has been specifically designed for operational staff who are not working in the fire safety department and will be made available to those who expressed an interest in the training. This course has been developed to improve fire safety knowledge and train station-based staff in technical fire safety.

Organisational learning (Fire Safety)

Following the fire and while noting the very robust response from Fire Safety, a range of potential learning was quickly identified, including but not limited to (where PN: 920 does not apply):

- The benefit of a fire safety sector at large incidents to coordinate resources (improved effectiveness and efficiency), to provide single lines of communication and to support resident liaison with regards to fire safety matters.
- How to more effectively share information across various teams post-incident.
- Exploring out of hours fire safety responses at major incidents that may need technical skills not consistently held by senior fire safety officers.
- To have a generic major incident SharePoint site available that can be used to collate fire safety evidence from multiple sources (supporting more effective enforcement work).
- That additional scrutiny by fire safety officers of test records for smoke control systems in buildings (note – checks, testing and maintenance are the duty of the Responsible Person). A 'Fire Safety Urgent Bulletin' providing additional guidance on this subject has already been circulated to all Fire Safety staff.
- To consider how Fire Safety can improve the provision of information to communities, with regards to fire investigations, fire safety investigations under the RRO, the role of the Responsible Person and the role of LFB within the fire safety context.

External/national learning

The fire at NPW attracted attention in part, due to the presence of vertical and horizontal strips of ACM cladding. However, in this instance, while some ACM panels were involved, they did not significantly contribute to the external spread of the fire. The external timber decking on balconies did support the external spread of fire, but the main issue was the failing of 'life safety' fire safety measures such as AOVs within the building. LFB have highlighted that fire safety must be considered holistically, with all elements being given due regard.

As part of LFB's ongoing contribution to external and national learning, the Fire Investigation report was shared with key government departments and the NFCC. Additionally, LFB have:

- Facilitated site visits and information sharing between fire investigators and fire safety officers and representatives of the Ministry of Housing, Communities & Local Government so that the (fire safety) learning from the fire could be fed directly into teams that may influence standards and policy.
- Held regular programmed meetings with key stakeholders to ensure that any relevant learning points are shared.
- Shared a smoke control/ventilation package produced by a LFB Fire Engineer with NFCC so that it can be developed into a national learning package. It has also been confirmed that this will be shared with National Operational Learning (NOL)/NOG.
- Undertaken communications work across a range of media platforms to remind 'Responsible Persons' of their obligation to check, test and maintain fire safety systems such as ventilation/AOVs.

LFB continue to work with external stakeholders, including industry groups, Government and standards bodies, in order to seek higher standards of fire safety in the built environment to keep our communities safer and reduce the risk to our firefighters.

12 Summary of key recommendations

The Brigade considers itself a learning organisation. The good practice and learning opportunities identified as a result of the fire at NPW have been captured and disseminated to the appropriate internal LFB departments. Each department has developed its own Departmental Action Plan outlining the required learning and actions for implementation. LFB is working quickly and diligently to respond to this learning.

Good practice and learning from this incident will be managed and assured by LFBs OIP²⁰. The OIP is a process to identify, coordinate, monitor and record operational improvements recommended from

²⁰ The OIP is an Incident Command policy with administration and meeting support provided by the Operational Policy, Safety and Assurance Support Group. The OIP has a database (developed internally using Microsoft Access) that records the following information:

- Source and date of recommendation
- Actions identified by LFB to address recommendations
- Dates action is taken and completed
- Regular monitoring updates against actions

several sources. It is the organisational repository for both ongoing and some historical actions that have been taken by LFB to improve firefighter safety and/or operational effectiveness in response to recommendations from internal and external sources.

The Key Observations and associated actions identified during the internal review of operational response to the incident and the wider organisational support mechanisms are summarised below:

Control

- LFB Control to support delivery of FSG mobile application alongside LFB IT team. This system went live Q4 2021. This mobile application automates the sharing of FSG information between Control and the incident ground. This system speeds up information sharing and ensures the accuracy and type of information shared between locations.
- LFB Control to pursue the automation of FSG PDA for both initial and multiple FSG mobilisations.
- LFB Control to work with LFB IT team to provide software solution enabling the provision of ORI via ePIP on the main Control room monitors. This solution was implemented Q1 2022.
- LFB Control team to continue the positive work with National Control rooms to ensure communications links remain robust and staff are trained in the requirement to inform colleagues of exceptional incidents which may be passed on to colleagues outside of affected fire and rescue service. This process is tested weekly at 11:00 hours and each fire Control takes it in turn to initiate and deliver test.
- LFB Control team to continue to train and embed London centric ESICTRL Airwave channel to inform London partner Control rooms of a range of incidents.

Operations

- A presentation has been designed to provide all staff groups with an overview of the New Providence Wharf incident. The presentation highlights both good practice and learning outcomes. The presentation will be delivered to the following LFB personnel:
 - Fire Station
 - Fire and Rescue Staff
 - Regulatory Fire Safety
 - Control

• Person(s) responsible for the action

- Operational Policy and Fire Safety to ensure that all personnel are sufficiently aware of how fixed installations operate, when they are operating correctly and how to report incorrect operation during inspections and at an incident.
- OP&A to review existing procedure for handover of command to determine whether potential exists to reduce the number of transitions between officers.
- OP&A to amend FIRE system for initial deployment at high-rise incidents to include appliance tablets in equipment taken to bridgehead. This will assist in access to ORD and ePIP information to support situational awareness.
- OP&A to review roles and responsibilities of lobby sector commander, including coordination of staging area, stairwell below bridgehead and forward logistics, to ensure role is understood and provides appropriate spans of control for staff.
- OP&A to incorporate initial coordination of evacuation and impact on search and rescue activities into defined Evacuation Officer role. This will include coordinating with other agencies at scene to maintain a clear understanding of where all residents are and to avoid duplication of search and rescue activities.
- OP&A to support the national working group review of vertical sectorisation to ensure responsibility for stairwell management is clearly defined. OP&A will consider the provision of interim guidance for a stairwell sector while this working group continues.
- OP&A to consider more flexible use of airwave talk groups to improve communications capacity at large or complex incidents. It is recommended to provide clearer guidance on using talk groups at incidents, and ensure staff understand the benefits of this.
- OP&A to consider issue of Airwave handheld radio per appliance to assist with early stages of multi-FSG incident and mitigate the need for runners.
- OP&A to provide Control Information Form wallets to all BA entry control boards to facilitate tracking of crew deployments for FSG prior to arrival of Command Unit crews.
- OP&A to review Control Information forms in line with the FSG app information categories to fully align with Control information gathering protocols to improve the speed and efficiency of information recording.
- OP&A to review Forward Information Board to align to FSG app information categories, and also review FIB format itself to ensure it is suitable for use from the initial stages to avoid recording on other surfaces.
- The speed at which multiple FSG calls were received meant that crews had to handle them prior to the arrival of sufficient CUs to create a bridgehead CU FSG team. Following the improvements to the FIB/CIF equipment identified above, and the deployment of the FSG app, it is proposed to ensure that all station level staff are trained to resolve the numbers of FSG calls encountered at the speed they arose at New Providence Wharf.

SRA

- Review notification process with AC Control & Mobilising to ensure notification procedure is contained in relevant Control policy and training (notification refers specifically to the trigger/threshold for formal notification of the on-call duty staff as listed on the Daily Bulletin).
- Review and clarify process for initiation of tripartite conversations at relevant command levels.
- Review utility of providing a duty loggist for SRA support.
- Review and amend LFB PN: 699 Strategic Response Arrangements (Gold Command).
- Within the SRA policy review, capture and consolidate the use of remote/virtual meeting arrangements for early and dynamic CCG/BCC functions. This will ensure the Brigade stay ahead of decision-making curve for the management of dynamic/sudden impact incidents and/or protracted incidents.
- Training in the form of SRA workshops for TMG is to be prioritised to coincide with the roll out of the revised SRA policy.

The amended SRA review will:

- Create a streamlined policy that will not have duplication from other policies i.e. content around major incident procedure, where appropriate this information will be signposted via hyper link.
- Align SRA with National Operational Guidance.
- Clarify roles and responsibilities, including systems of building flexibility around roles and responsibilities and communication methodologies.
- Provide a clear Communications structure and ensure 'One voice' approach for communications strategy when SRA arrangements initiated.
- Amend SRA key contact section to provide clarity and guidance for key stakeholder briefings.
- Provide updated, easy to follow flow charts highlighting implementation and subsequent actions.
- Replace 'Advice and Wellbeing' with 'Counselling and Trauma'.
- Clearly define roles and responsibilities of staff delivering elements of the SRA, including parameters of involvement to ensure communication pathways are managed, do not

conflict and a single person assumes responsibility for Brigade and incident ground(s) alike.

- Make provision for flexibility of staff undertaking certain functions across the SRA in order to facilitate contingency where capacity is stretched i.e. at a multi sight incident/multiple incidents.
- Make provision for staff to support actions/activities undertaken by core roles within the SRA.

Fire Safety

Following the fire and while noting the very robust response from Fire Safety, a range of potential learning was quickly identified, including but not limited to (where PN: 920 does not apply):

- The benefit of a fire safety sector at large incidents to coordinate resources (improved effectiveness and efficiency), to provide single lines of communication and to support resident liaison with regards to fire safety matters.
- How to more effectively share information across various teams post-incident.
- Exploring out of hours fire safety responses at major incidents that may need technical skills not consistently held by senior fire safety officers.
- To have a generic major incident SharePoint site available that can be used to collate fire safety evidence from multiple sources (supporting more effective enforcement work).
- That additional scrutiny by fire safety officers of test records for smoke control systems in buildings (note – checks, testing and maintenance are the duty of the Responsible Person). A 'Fire Safety Urgent Bulletin' providing additional guidance on this subject has already been circulated to all Fire Safety staff.
- To consider how Fire Safety can improve the provision of information to communities, with regards to fire investigations, fire safety investigations under the RRO, the role of the Responsible Person and the role of LFB within the fire safety context.
- LFB are currently piloting Fire Safety Checks as part of Visual Audits. These visits are a key part of the Brigade's response to the recommendations of the Grenfell Tower Inquiry Phase One report and 2019 HMICFRS Inspection.

Crews will be visiting premises covered by the RRO, offering business owners and responsible persons advice and guidance, and passing on the information gathered about risk to colleagues in Regulatory Fire Safety. This work will also help increase station-based staff knowledge of Fire Safety.

- LFB have developed and introduced (June 2021) a fire safety course (L3i Fire Safety) for operational staff at fire stations. The course has been specifically designed for operational staff who are not working in the fire safety department and will be made available to those who

expressed an interest in the training. This course has been developed to improve fire safety knowledge and train station-based staff in technical fire safety.

Fire Safety – external/national learning

The fire at New Providence Wharf attracted attention in part, due to the presence of vertical and horizontal strips of ACM cladding. However, in this particular instance, while some ACM panels were involved, they did not significantly contribute to the external spread of the fire. The external timber decking on balconies did support the external spread of fire, but the main issue was the failing of 'life safety' fire safety measures such as AOVs within the building. LFB have highlighted that fire safety must be considered holistically, with all elements being given due regard.

As part of LFB's ongoing contribution to external and national learning, the Fire Investigation report was shared with key government departments and the NFCC. Additionally, LFB have:

- Facilitated site visits and information sharing between fire investigators and fire safety officers and representatives of the Ministry of Housing, Communities & Local Government so that the (fire safety) learning from the fire could be fed directly into teams that may influence standards and policy.
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- Undertaken communications work across a range of media platforms to remind 'Responsible Persons' of their obligation to check, test and maintain fire safety systems such as ventilation/AOVs.

LFB continue to work with external stakeholders, including industry groups, Government and standards bodies, in order to seek higher standards of fire safety in the built environment to keep our communities safer and reduce the risk to our firefighters.

13 Conclusion

On 7th May 2021, a fire occurred at New Providence Wharf (NPW), a high-rise residential building of 19 floors in the Borough of Tower Hamlets, in the north east of London. The fire at NPW raised very high public interest because of the nature of the premises, the firefighting, and rescues.

As well as LFB staff, residents of NPW demonstrated bravery, integrity, and community spirit as they found themselves involved in a major incident. Colleagues within LFB Fire Control, Metropolitan Police Service, London Ambulance Service, Tower Hamlets local authority and many others also responded with conviction to support operations, strategic decision making, and the evacuation and support of those involved. Thankfully the fire at NPW resulted in no loss of life.

The incident highlights the risks within the built environment and the national pattern of buildings not behaving as they should, with rapid fire spread in contrast with the principles of building design and

compartmentation. These incidents highlight the significant challenges faced by all UK fire and rescue services and other responding agencies.

The regulatory investigation process relating to NPW is ongoing due in part to the complexity of the case. All appropriate remediation action relating to fire safety measures that supported the reoccupation of the development post-fire, were undertaken in a timely manner by the Ballymore Group.

Good practice and learning opportunities identified as a result of the fire at NPW have been disseminated to the appropriate internal LFB departments. Each department has developed its own departmental action plan outlining the required learning and actions for implementation. LFB is working quickly and diligently to respond to this learning.

A presentation has been designed to provide all staff groups with an overview of the New Providence Wharf incident. The presentation highlights both good practice and learning outcomes. The presentation will be delivered to the following LFB personnel:

- Fire Station
- Fire and Rescue Staff
- Regulatory Fire Safety
- Control

LFB's identified learning and good practice will be shared with other fire and rescue services and partner agencies, enabling them to reflect on their local operational preparedness and service delivery; and implement or amend their own response arrangements, if required.

14 Appendices

14.1 Appendix 1 Photographs of scene

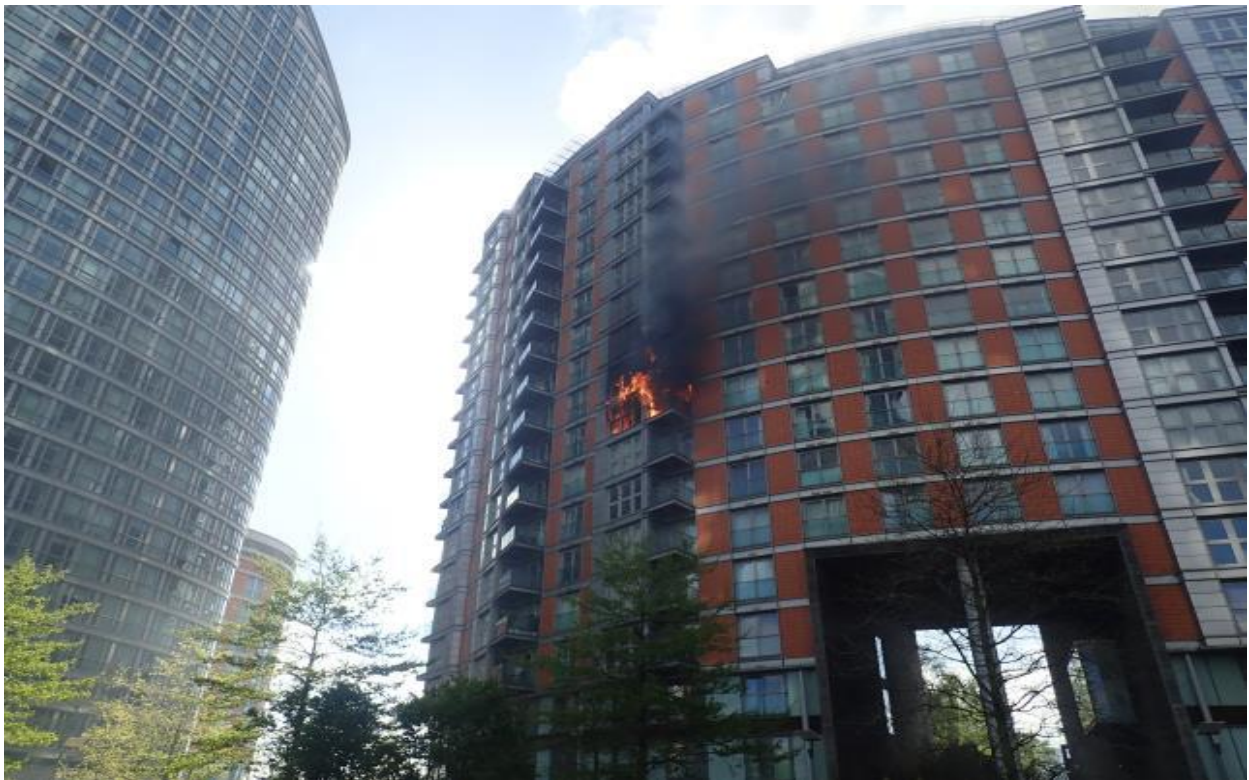


Image showing the fire in progress on the North face of NPW



Images showing the damage to the exterior North face of NPW



Images showing the damage to the exterior North face of NPW



Image showing the AOV door on the 8th floor



Image showing the AOV door on the 9th floor



Image showing the void between the top of the door frame and the fabric of the building



Image showing the timber boxing around the front door frame of flat next to flat of origin

14.2 Appendix 2 -Timeline of key activities

Narrative

Message Time	Time From Start	Message
07/05/2021 08:55:31	00:00:00	Call Collection Address selected (not replaced): NEW PROVIDENCE WHARF , 1 FAIRMONT AVENUE , LONDON , E14 9PF (6154547) (538537,180471)
07/05/2021 08:58:01	00:02:30	Message Viewed Document POI:36395:NEW PROVIDENCE WHARF (Flammable Cladding & Waking Watch) , NEW PROVIDENCE WHARF, 1, FAIRMONT AVENUE,Type:MENU,File:Building36395.htm,Title:Building36395.htm
07/05/2021 09:00:15	00:04:44	Key RT4 - F221 - OCCUPIER WHO WAS EVACUATING STATED THAT THE BUILDING HAS FLAMMABLE CLADDING
07/05/2021 09:01:00	00:05:29	Make Up F221 - SBOI BRAVO, MAKE PUMPS TEN PERSONS REPORTED RVP BISCAINE AVENUE AND BLACKWALL WAY TMO
07/05/2021 09:05:25	00:09:54	Key EMG -F231 REQUEST ATTENDANCE FOR [REDACTED]
07/05/2021 09:06:52	00:11:21	Key SUBO ALPHA ECHO NOW IC
07/05/2021 09:07:03	00:11:32	Key FSG - STAY PUT PREMISES: [REDACTED] FLOOR: 17 CURRENT LOCATION: BALCONY ADULTS: 1 CHILDREN: ELDERLY: VULNERABILITY: CURRENT CONDITIONS: SMOKE IN HALLWAY - NOT ABLE TO LEAVE - NOT AFFECTED IMMEDIATELY AT PRESENT ADD INFO: RECVD INTO CONTROL AT: 09:06
07/05/2021 09:07:16	00:11:45	Key F451 DEDICATED FSG PUMP
07/05/2021 09:11:25	00:15:54	Message Viewed Document POI:36395:NEW PROVIDENCE WHARF (Flammable Cladding & Waking Watch) , NEW PROVIDENCE WHARF, 1, FAIRMONT AVENUE,Type:MENU,File:Building36395.htm,Title:Building36395.htm
07/05/2021 09:14:00	00:18:29	Make Up IUP CU3/ STNO ALPHAFOXTROT, MAKE PUMPS 15, TMO
07/05/2021 09:14:38	00:19:07	Informative F451 STNO ALPHAFOXTROT NOW STATION COMMAND, CU3 NOW ICP
07/05/2021 09:22:08	00:26:37	Key FSG - STAY PUT PREMISES: [REDACTED] FLOOR: 14 CURRENT LOCATION: BALCONY ADULTS: 2 CHILDREN: ELDERLY: VULNERABILITY: CURRENT CONDITIONS: NO SMOKE IN PROPERTY ADD INFO: RECVD INTO CONTROL AT: 09:21
07/05/2021 09:22:33	00:27:02	Informative STN COMMANDER WHISKEY NOW INCIDENT COMMANDER
07/05/2021 09:27:39	00:32:08	Make Up IUP CU3 -MAKE AREIALS 2, TMO
07/05/2021 09:32:32	00:37:01	Make Up IUP CU3 - DAC TANGO NOW IC, MAKE PUMPS 20, MAKE FRU X4 TMO
07/05/2021 09:33:18	00:37:47	Informative SUP -CU3 - MASS EVACUATION NOW IN PROGRESS
07/05/2021 09:41:33	00:46:02	Informative AC CHARLIE BM4 NOW IN ATTENDANCE
07/05/2021 09:43:58	00:48:27	Informative IUP -CU3 DAC TANGO - THIS IS NOW BEEN DECLARED A MAJOR INCIDENT, MASS EVAC IN PROGRESS, ALL GUIDANCE GIVEN TO FSG IS NOW TO EVACUATE, AC CHARLIE IS NOW IC, TMO
07/05/2021 09:45:11	00:49:40	Make Up IUP - CU3 - MAKE CU X 3
07/05/2021 09:45:30	00:49:59	Make Up Make COMMAND UNIT 3 Requested
07/05/2021 09:45:55	00:50:24	Agency RT4 FOR CU3 MPS ADVISE RVP FOR ALL EMERGENCY SERVICES IS BLACKWALL WAY
07/05/2021 09:46:00	00:50:29	Informative F451 CU4 IS NOW FSG VEHICLE
07/05/2021 09:49:23	00:53:52	Linked incident 053709-07052021 User Comment TO ATTENDN LOC Turning out with message - AS IL
07/05/2021 09:49:52	00:54:21	Agency RP UNIT ATTENDING WITH TWIN UNITS AND CYLINDERS
07/05/2021 09:54:55	00:59:24	Linked incident 053720-07052021 User Comment 09:44 HRS BM1 INFORMED OF INCIDENT AND IS COMMUNICATION WITH AC1 **** REMOTELY MONITORING
07/05/2021 09:56:03	01:00:32	Informative SUP CU3 - FROM AC CHARLIE, A RESIDENTIAL HIGH RISE OF 19 FLOORS 180 X 20 METRES. CONSISTING OF 5 CONNECTING BLOCKS WITH ACS CLADDING, BLOCK C 44 X 20 METRES, 10 PERCENT OF FLOORS NUMBERS 8, 9 AND 10 ALIGHT, AREIAL AS MONITOR, TWO JETS, BA, TIC, HIGH RISE PROCEDURE IMPLEMENTED, MASS EVAC IN PROGRESS, MULTIPLE FSG CALLS BEING ACTIONED, TMO
07/05/2021 09:56:41	01:01:10	Make Up CU3 - MAKE CUS X 4
07/05/2021 09:56:55	01:01:24	Make Up Make COMMAND UNIT 4 Requested
07/05/2021 09:59:01	01:03:30	Key FSG - IN PROGRESS PREMISES: [REDACTED] FLOOR: CURRENT LOCATION: ADULTS: CHILDREN: ELDERLY: VULNERABILITY: CURRENT CONDITIONS: NO DETAILS - RECEIVED VIA CREWS ON SCENE ADD INFO: RECVD INTO CONTROL AT: 09:58

07/05/2021 10:01:01	01:05:30	Key SUP CU3 AC CHARLIE, MAJOR INCIDENT DECLARED BY LFB AT NEW PROVIDENCE WHARF. 10 PERCENT OF FLOORS 8,9 AND 10 ALIGHT, ACM CLADDING PRESENT, ACCESS ROUTE VIA BLACKWALL WAY, MULTIPLE CASUALTIES, MULTI FSG IN PROGRESS, MASS EVAC IN PROGRESS, LFB, POLICE AND LAS IN ATTENDANCE
07/05/2021 10:12:07	01:16:36	Make Up Make FIRE RESCUE UNIT 7 Requested
07/05/2021 10:13:08	01:17:37	Key CU4 DRONE TEAM REQUESTED - ADVISED ALREADY ENROUTE
07/05/2021 10:15:38	01:20:07	Informative IUP CU3 REQUEST 2 X STATION COMMANDER, ONE TO PICK UP CU CREWS FROM PLAISTOW AND ONE TO PICK UP CREWS FROM DOCKHEAD AND BRING TO SCENE OF 20 PUMP FIRE
07/05/2021 10:16:27	01:20:56	Linked incident 053720-07052021 User Comment MAJOR INCIDENT INITIATED BY LFB Turning out with message - F118 PAGED AS DUTY NILO
07/05/2021 10:16:35	01:21:04	Linked incident 053720-07052021 Agency F118 PAGED AS DUTY NILO
07/05/2021 10:21:52	01:26:21	Agency F38S and F36S PAGED TO COLLECT CU CREW FROM PLAISTOW and DOCKHEAD
07/05/2021 10:25:01	01:29:30	Informative SUP -CU3 TCG SCHEDULED FOR 10:30 HOURS
07/05/2021 10:29:45	01:34:14	Key FOR CU3 FROM THE BCC DO YOU REQUIRE THE PPV TO ASSIST WITH VENTILLATION OF PREMISES
07/05/2021 10:30:50	01:35:19	Informative SUP CU3 - ANSWER YES TO ASSISTANCE FROM PPV TO ASSIST IN VENTILATION OF PREMISES
07/05/2021 10:37:26	01:41:55	Informative SUP -CU3 AC CHARLIE A RESIDENTIAL HIGH RISE OF 19 FLOORS, 180 X 20 METRES CONSISTING OF 5 CONNECTING BLOCKS WITH ACM CLADDING, BLOCK C, 40 X 20 METRES, STEADY PROGRESS BEING MADE WITH FIRES IN FLATS ON THE 8, 9 AND 10TH FLOORS. 6 X JETS, BA, EDDB, BA MAIN CONTROL, AREIAL AS OBSERVATION PLATFORM, AREIAL AS WATER TOWER, DRONE, TMO
07/05/2021 10:38:26	01:42:55	Informative SUP - CU3 ALL FSG CALL RECIEVED HAVE BEEN CONCLUDED AND TCG NOW COMMENCED
07/05/2021 10:48:01	01:52:30	Linked incident 053720-07052021 Key TOWER HAMLETS COUNCIL CONTACTED REF USAID STATES LALO **** IS ALREADY ON SCENE AT THIS INCIDENT
07/05/2021 10:54:05	01:58:34	Agency E9 SELF MOBILISED AS MEDIA OFFICER AS PER AGREEMENT WITH AC ****
07/05/2021 10:55:45	02:00:14	Agency E9 DAC **** NOMINATED BY AC **** AS DAC PRESS OFFICER
07/05/2021 10:57:18	02:01:47	Informative SUP -TCG NOW CONCLUDED, NEXT TCG SCHEDULED FOR 12:00 HOURS
07/05/2021 11:32:41	02:37:10	Informative CU3 AC CHARLIE, FIRE SURROUNDED, TMO
07/05/2021 11:35:57	02:40:26	Informative SUP CU3 - REQUEST 6 PUMP RELIEF WITH 3 X SUBO IN CHARGE FOR 13:00 HOURS AND ONE 64 METRE AERIAL AND OF68 FIRE ENGINEER
07/05/2021 11:46:21	02:50:50	Informative FSG CHANNEL BETWEEN CONTORL AND CU4 NOW CLOSED
07/05/2021 11:47:03	02:51:32	Informative SUP CU3 - AC CHARLIE MAJOR INCIDENT DECLARED BY LFB, EXACT LOCATION NEW PROVIDENCE WHARF, FAIRMONT AVENUE, POPLAR, TYPE OF INCIDENT IS HIGH RISE FIRE, HAZARDS PRESENT, ACM CLADDING AND FIRE SPREAD, ACCESS ROUTES IS VIA BLACKWALL WAY. NUMBER OF CASUALTIES IS 38, 2 REMOVED TO HOSPITAL BY LAS. EMERGENCY SERVICES PRESENT, LFB, POLICE AND LAS, NO FURTHER REQUIRED TMO
07/05/2021 11:53:35	02:58:04	Informative SUP -CU3 AC CHARLIE AT NEW PROVIDENCE WHARF, A RESIDENTIAL HIGH RISE OF 19 FLOORS, 180 X 20 METRES WITH ACM CLADDING, HIGH RISE CONSISTS OF 5 CONNECTING BLOCKS. BLOCK D, 30 X 20 METRES FLAT [REDACTED] ON THE 8TH FLOOR, 5 PERCENT REMAINS ALIGHT, HOT SPOTS REMAIN ON THE 9TH AND 10TH FLOORS. MULTIPLE RESCUES CARRIED OUT BY BA CREWS, TWO [REDACTED] Withheld under FOI act 2000 – s40 Personal Information. [REDACTED] A FURTHER 38 ADULTS AND FOUR CHILDREN TREATED ON SCENE BY LAS HART TEAM FOR SHOCK AND SMOKE INHALATION, DISCHARGED. AERIAL AS OBSERVATION TOWER. AERIAL AS WATER TOWER, 6 X JETS, BA, TIC, 22 SMOKE HOODS USED, DRONE IN USE, NPAS, EMERGENCY EVACUATION OF BUILDING IMPLEMENTED, HIGH RISE PROCEDURE IMPLEMENTED, BA MAIN CONTROL, MAJOR INCIDENT PROCEDURE IMPLEMENTED. ALL FSG CALLS RESOLVED, TMO
07/05/2021 11:55:45	03:00:14	Key MPS AND LAS UPDATED WITH METHANE MESSAGE OVER ESICTRL RADIO
07/05/2021 11:57:16	03:01:45	Key REQ - CU3 - REQUEST ATTENDANCE OF UKPN
07/05/2021 12:18:02	03:22:31	Key NTG20 FIRE CONTROLS UPDATED WITH CURRENT SIT REP NO FSG CALLS IN PROGRESS ALL PAST FSG CALLS RESOLVED
07/05/2021 14:32:56	05:37:25	Informative INF/SUP - CU3 - BOROUGH COMMANDER **** IS INCIDENT COMMANDER MAJOR INCIDENT FOR LFB HAS NOW BEEN STOOD DOWN TMO
07/05/2021 15:28:15	06:32:44	Stop STOP AC CHARLIE, NEW PROVIDENCE WHARF, FAIRMONT AVENUE, A RESIDENTIAL HIGH RISE OF 19 FLOORS 180 X 20 METRES, PARTIALLY CLAD IN ACM CLADDING. HIGH RISE CONSISTS OF 5 CONNECTED BLOCKS A - E. BLOCK D, 30 X 20 METRES, FLAT NUMBER [REDACTED] ON 8TH FLOOR, 100 PERCENT DXF, FLAT [REDACTED] ON 9TH FLOOR, 10 PERCENT DXF. FLAT [REDACTED] ON 10TH FLOOR, 10 PERCENT DXF, 15 FSG CALLS RESOLVED. 34 PERSONS RESCUED BY BA CREWS, 67 PERSONS SELF EVACUATED, 2 [REDACTED] Withheld under FOI act 2000 – s40 Personal Information. [REDACTED] ALL OTHER PERSONS ASSESSED FOR SMOKE INHALATION AND SHOCK BY LAS, DISCHARGED. [REDACTED] Withheld under FOI act 2000 – s40 Personal Information. [REDACTED] ONE AERIAL AS OBSERVATION TOWER, ONE AERIAL AS MONITOR, 6 JETS, BA, TIC, 22 SMOKE HOODS USED, DRONE IN USE, NPAS, EMERGENCY EVACUATION OF BULDING IMPLEMENTED, HIGH RISE PROCEDURE IMPLEMENTED, MAJOR INCIDENT PROCEDURE IMPLEMENTED, BA MAIN CONTROL, ALL PERSONS ACCOUNTED FOR SAAC, TMO

07/05/2021 15:37:14	06:41:43	<p>Stop AMENDED STOP FROM AC CHARLIE, NEW PROVIDENCE WHARF, FAIRMONT AVENUE, A RESIDENTIAL HIGH RISE OF 19 FLOORS 180 X 20 METRES, PARTIALLY CLAD IN ACM CLADDING. HIGH RISE CONSISTS OF 5 CONNECTED BLOCKS A - E. BLOCK D, 30 X 20 METRES, FLAT NUMBER [REDACTED] ON 8TH FLOOR, 100 PERCENT OF FOUR ROOMED FLAT DXF, FLAT [REDACTED] ON 9TH FLOOR, 10 PERCENT OF FOUR ROOMED FLAT DXF. FLAT [REDACTED] ON 10TH FLOOR, 10 PERCENT OF FOUR ROOMED FLAT DXF. 15 FSG CALLS RESOLVED. 34 PERSONS RESCUED BY BA CREWS, 67 PERSONS SELF EVACUATED, 2 Withheld under FOI act 2000 – s40 Personal Information.</p> <p>[REDACTED]. ALL OTHER PERSONS ASSESSED FOR SMOKE INHALATION AND SHOCK BY LAS, DISCHARGED. [REDACTED] Withheld under FOI act 2000 – s40 Personal Information. [REDACTED] ONE AERIAL AS OBSERVATION TOWER, ONE AERIAL AS A MONITOR, 6 JETS, BA, TIC, 22 SMOKE HOODS USED, DRONE IN USE, NPAS, EMERGENCY EVACUATION OF BULDING IMPLEMENTED, HIGH RISE PROCEDURE IMPLEMENTED, MAJOR INCIDENT PROCEDURE IMPLEMENTED, BA MAIN CONTROL, ALL PERSONS ACCOUNTED FOR SAAC TMO</p>
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