# Report for London Borough of Hammersmith and Fulham



FIRE RISK ASSESSMENT
OF
NORLAND HOUSE, EDWARD WOODS ESTATE

Responsible Person (e.g. employer) or person

having control of the premises:

London Borough of Hammersmith and Fulham (LBHF)

r dinam (LDI ii )

Address of Premises: Norland House, Edward Woods Estate,

White City, London W11

Person(s) Consulted: Mr A. McEwen, Fire Safety Apprentice

Ms T. Kielty, Fire Safety Team

Assessor: A. Fox

Report validated by: S. Daws

Date of Fire Risk Assessment: 23<sup>rd</sup> June 2021

Date of Previous Fire Risk Assessment: 20<sup>th</sup> August 2019, desktop review 10<sup>th</sup> July

2020.

Suggested Date for Review<sup>1</sup>: June 2022

BAFE SP205 Certificate Number: LS0127100

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



Fire Safety Consultants

Tel: 01252 792088
Email: office@cstodd.co.uk
Website: www.cstodd.co.uk

<sup>&</sup>lt;sup>1</sup>This risk assessment should be reviewed by a competent person by the date indicated above or at such earlier time as there is reason to suspect that it is no longer valid, or if there have been significant changes, or if a fire occurs.

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## INTRODUCTION

# **About This Report**

This report is intended to assist you in compliance with Article 9 of the Regulatory Reform (Fire Safety) Order 2005 (the 'Fire Safety Order'), which requires that a risk assessment be carried out.

The report begins by setting out general information relating to the premises (Sections 1-7). This is followed by consideration of fire hazards that may be present and the measures to eliminate or control them (Sections 8-17). The measures in place to protect people in the event of fire are considered next (Sections 18-25), followed by a review of the arrangements for managing fire safety in your premises (Sections 26-29). We then conclude with our qualitative assessment of the risk to life from fire.

## Recommendations

Our recommendations are outlined in an Action Plan. This sets out the measures it is considered necessary for you to take to satisfy the requirements of the Fire Safety Order and to protect people from fire. It is particularly important that you study the Action Plan, and, if any recommendation in the Action Plan is unclear, you should seek clarification.

You are advised that this risk assessment forms only the foundation for management of fire safety in your premises and compliance with the Fire Safety Order. You should act on the recommendations in the Action Plan and record what you have done. This will demonstrate to the enforcing authority your commitment to fire safety and to fulfilling your legal obligations.

## **Reviewing Your Fire Risk Assessment**

The Fire Safety Order requires that you keep your risk assessment under review. A date for routine review is given on the front of this report, but you should review the report sooner should there be any reason to suspect it is no longer valid, if a significant change takes place or if a fire occurs.

# **Record of Fire Safety Arrangements**

The Fire Safety Order requires that you give effect to 'arrangements for the effective planning, organisation, control, monitoring and review of the preventive and protection measures'. These are the measures that have been identified by the risk assessment as the general fire precautions you need to take to comply with the Fire Safety Order. You must record these arrangements. While this fire risk assessment is not the record of the fire safety arrangements to which the Fire Safety Order refers, much of the information contained in this report will coincide with the information in that record.

# Scope and Limitations of the Fire Risk Assessment

We have conducted the fire risk assessment in accordance with the Fire Industry Association's publication 'Fire Risk Assessors – Standard Scope of Services'.

We have based our assessment on the situation we were able to observe while at the premises and on information provided to us, either verbally or in writing. Unless otherwise stated, our surveys do not involve destructive exposure, and it is not always possible to inspect all rooms and areas, nor inspect less readily accessible areas, such as voids above ceilings. Therefore, it is necessary to rely on a degree of sampling and also reasonable assumptions and judgement.

## **External Wall Construction**

Attention is drawn to the Ministry of Housing, Communities & Local Government Consolidated Advice Note for building owners of multi-storey, multi-occupied residential buildings, dated January 2020 (<a href="https://www.gov.uk/government/publications/building-safety-advice-for-building-owners-including-fire-doors">https://www.gov.uk/government/publications/building-safety-advice-for-building-owners-including-fire-doors</a>).

The Advice Note recommends that building owners should consider the risk of external fire spread as part of the fire risk assessment for multi-occupied residential buildings. The Advice Note further recommends the assessment of the fire risks of any external wall system, irrespective of the height of the building.

Consideration has been given to external wall construction within this fire risk assessment. However, consistent with guidance to fire risk assessors from the Fire Industry Association (FIA), assessment of the fire risks of external walls and any cladding are excluded from the scope of this current fire risk assessment.

Accordingly, this fire risk assessment may recommend that further appraisal and assessment of the fire risks associated with external wall construction and any cladding be carried out. In this case, it is strongly recommended that you obtain advice from qualified and competent specialists on the nature of, and fire risks associated with, the external wall construction, including any cladding, of this building.

Any such assessment by specialists should follow the process set out in the CAN and as noted in diagram 1 of that document. This assessment should show how the external wall construction supports the overall intent of Requirement B4(1) in Part B of Schedule 1 to the Building Regulations 2010, namely that "the external walls of the building shall adequately resist the spread of fire over the walls and from one building to another, having regard to the height, use and location of the building". In this connection, the assessment should address this functional requirement (regardless of the height of the building) and not just the recommendations set out in guidance that supports the Regulations (e.g. Approved Document B under the Regulations). The assessment should not just comprise a statement of either compliance or non-compliance with the functional requirement or the guidance, but should include a clear statement on the level of risk and its acceptability.

This assessment by specialists should take into account a number of factors, including, but not necessarily limited to:

- The type of evacuation strategy used in the building, i.e. simultaneous, staged, phased or 'stay put' and the anticipated evacuation time should evacuation become necessary;
- Suitability of the facilities for firefighting, including firefighting access for the fire and rescue service:
- The construction of the external walls, including any cladding and its method of fixing;
- The presence, and appropriate specification of, cavity barriers;

- The height of the building;
- The vulnerability of residents;
- Exposure of external walls or cladding to an external fire;
- Fire protection measures within the building (e.g. compartmentation, automatic fire suppression, automatic fire detection);
- Apparent quality of construction, or presence of building defects;
- The combustibility of the building structure and the use of modern methods of construction, such as timber framing, CLT, etc.;
- The location of escape routes;
- The complexity of the building; and
- The premises' emergency plan including an assessment of the adequacy of any staffing levels for the type of evacuation method employed.

This assessment by specialists is likely to take account of information on any approval of the building (and alterations to the building) under the Building Regulations, and information on external wall construction and any cladding available from the Responsible Person (e.g. in operation and maintenance manuals, or handed over for compliance with Regulation 38 of the Building Regulations); it is unlikely that the RICS EWS1 form will provide adequate assurance on its own.

# **Dangerous Substances**

This fire risk assessment has considered dangerous substances that are used or stored in your premises, only to the extent necessary to determine the adequacy of the *general fire precautions* (as defined in Article 4 of the Fire Safety Order) and to advise you accordingly. If dangerous substances are used or stored in your premises, you should ensure that you have met the duties under the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) that apply to you, including carrying out a risk assessment of the relevant work activities.

## **BAFE SP205 Scheme**

We are certificated under the BAFE Fire Protection Industry Scheme SP205 Part 1 Life Safety Fire Risk Assessment and are authorised to issue a certificate of conformity for this fire risk assessment. You will find this at the end of this report.

## **Disclaimer**

The purpose of this report is to provide an assessment of the risk to life from fire, and, where appropriate, to make recommendations to ensure compliance with fire safety legislation. The report does not address the risk to property or business continuity from fire.

The submission of this report constitutes neither a warranty of future results by C.S. Todd & Associates Ltd, nor an assurance against risk. The report represents only the best judgement of the consultant involved in its preparation, and is based, in part, on information provided by others. No liability whatsoever is accepted for the accuracy of such information.

# **EXECUTIVE SUMMARY**

This fire risk assessment relates to a purpose-built block of flats. Our assessment is that the risk to life from fire in these premises is 'Moderate' as defined later in this report. We have concluded this by taking into account the likelihood of fire and the consequences for life safety in the event of fire.

The reasons for classifying the building as a 'Moderate' risk are as follows:

- Although the overall design of the means of escape and standard of protection to escape
  routes was considered reasonable, there were several issues identified that need to be
  addressed; some of these are considered to present a potential risk to life and require
  immediate attention. Most of these issues were identified in the report for the fire risk
  assessment carried out in 2018, and either they have yet to be completed or we have not
  received confirmation that they have been completed. These include the following:
  - The upgrading of the fire protection to the staircases, additional smoke ventilation to corridors and the upgrading of one of the lifts to a fire-fighting lift.
  - Some flat entrance doors do not appear to be fitted with self-closing devices.
  - One flat entrance door was damaged.
  - The risk of external fire spread on the photovoltaic panels fitted to one elevation of the building.

# Other findings include:

- Some access doors to service risers are not adequately maintained fixed shut.
- It was not possible to confirm if service risers/ducts that pass through compartment floors within flats are adequately fire stopped.

Notwithstanding the classification of the building as a 'moderate risk', CSTA considers that:

- Overall, measures to manage fire hazards and control risk in the block are reasonable, as is the management of fire safety, with only a small number of issues relating to testing and maintenance identified.
- Given that there are reasonable levels of compartmentation and means of escape provided in the block, that LBHF have introduced a 'Fire Safety Plus' programme and that assurances that priority actions from the risk assessment will be given priority over other works, CSTA are of the opinion that it is appropriate to continue to occupy the premises while the improvement works are completed.

Full details of the findings can be found later in this report and our recommendations are set out in the Action Plan.

# **GENERAL INFORMATION**

## 1. THE PREMISES

1.1 Number of floors:

25 – ground plus 23 residential floors; plant/ service rooms on the 24<sup>th</sup> floor with access to the roof (see Section 5 below).

- 1.2 Number of flats: 180
- 1.3 Brief details of construction and approximate age of building:
  - 1960s purpose-built tower block of concrete frame construction, with concrete floors, brick exterior walls and a flat, concrete roof.
  - The block was refurbished, and another residential floor was added on the 23<sup>rd</sup> floor, circa 2011.
- 1.4 Occupancy:

Residential – purpose-built block of flats.

# 2. THE OCCUPANTS

2.1 Approximate maximum number of employees at any one time:

1 (see Section 5 below.)

2.2 Approximate maximum number of residents at any one time:

450 (See Section 5 below.)

# 3. OCCUPANTS ESPECIALLY AT RISK FROM FIRE

3.1 Sleeping occupants:

450 (See Section 5 below.)

3.2 Occupants in remote areas and lone workers:

Caretaker services staff, occasional contractors and site security staff.

3.3 Others:

None.

## 4. FIRE LOSS EXPERIENCE

<u>Date</u> <u>Brief details</u> <u>Cause</u> <u>Action taken (if any)</u>

None since the last fire risk assessment.

# 5. OTHER RELEVANT INFORMATION

- Norland House is a purpose-built block of residential flats. The flats are located on the
  upper floors over offices/community rooms and service rooms on the ground floor. There
  are no internal openings between the flats and the offices/community rooms. The flats have
  their own independent entrance at street level to the front of the block, providing access to
  the reception and security office in the ground floor entrance lobby.
- There are 23 residential floors above the ground floor, with a total of 180 self-contained 'general needs' flats. There are eight self-contained flats on each of Floors 1 to 22, which are accessed from a common corridor, with direct access to the lifts and the two staircases. There are four additional flats on the 23<sup>rd</sup> floor, which are accessed from a common corridor, with access to the two staircases; the lifts do not extend to this floor level. The 24<sup>th</sup> floor contains plant and service rooms, access to which is from the common corridor on the 23<sup>rd</sup> floor. Access to the roof is from the 24<sup>th</sup> floor.
- There is a mix of one, two and three-bedroom flats, the majority of which are occupied by tenants of LBHF. However, we are informed that some flats are leasehold.
- This risk assessment relates to:
  - Fire precautions within the common parts and other areas controlled by the client.
  - Fire protection systems that are the responsibility of the client.
- The common parts comprise the entrance lobby, reception and security office, staircases, corridors, lifts, service and electrical riser cupboards, meter cupboards, chute rooms, bin room, storerooms, plant and service rooms, and the roof.
- The offices/community rooms on the ground floor do not form part of this risk assessment and were not included in the survey. It is understood that the tenants of each office/community room have carried out their own fire risk assessments.
- There was no access available into the main electrical sub-station to the block, access to which is restricted to the supply company.
- The maximum number detailed in 2.2 and 3.1 has not been calculated, as details were not available. However, the expectation is that the maximum occupancy will be around 451 persons in the residential areas of the building at any one time.
- There is always a minimum of one security officer/concierge staff on duty. There is a
  caretaker service available at certain times of the day, Monday to Friday, and the premises
  are subject to periodic visits by other LBHF staff.
- While the occupants of the flats are 'relevant persons', the flats, as domestic dwellings, are outside the scope of the Regulatory Reform (Fire Safety) Order 2005, and, as such, the inspection was confined to the common parts.
- However, as part of the survey of the common areas, it was not possible to access any of
  the flats to confirm the suitability of the fire safety arrangements that are the responsibility
  of the client, and to establish the nature of the fire separation between the flats and the
  common parts. Accordingly, a modified Type 1 risk assessment, as defined in the Local
  Government Association's Fire Safety in Purpose-Built Blocks of Flats, has been carried
  out.
- One flat was entered during the assessment carried out in 2019, and it is assumed that the flat layouts remain the same.
- It should be noted that the fire risk assessment was carried out during the Coronavirus (COVID-19) pandemic. Therefore, in line with government guidance on social distancing, access to view flat entrance doors in occupied flats was not pursued. Due to these circumstances, a recommendation concerning inspection of flat entrance doors is made in the action plan later in this report.
- The client has limited control over privately owned leasehold flats within the premises.
- This is a 'general needs' block, and there may be occupants with varying degrees of physical disability in line with the general population.
- It should be noted that it is not normal practice to apply the current guidance retrospectively, relating to the design and construction of new buildings, when assessing

- existing buildings, other than where the original design principles are far removed from those acceptable today. Nevertheless, it is appropriate to consider developments in fire safety technology and practice that could be reasonably applied to an existing building. Therefore, we have considered such developments.
- LBHF have introduced a programme of fire safety initiatives through their 'Fire Safety Plus' programme. The programme includes the reintroduction of concierges and plans to install sprinklers in high rise blocks. In addition, free fire safety checks are offered to all residents, which include checks on flat entrance doors and, where necessary, the fitting of new FD60S doors, the free replacement of domestic appliances that fail a portable appliance check and the fitting of free smoke/heat alarms in flats. The programme also provides practical advice and information on fire safety in the home, supported by London Fire Brigade (LFB).
- Following discussions with LFB and advice provided by CSTA, LBHF have agreed to implement a schedule of works to upgrade the fire protection to both staircases in the block, to upgrade one of the lifts to a fire-fighting lift and to upgrade the smoke control arrangements through the provision of additional ventilation to the common corridors and chute rooms. It is understood that the Building Regulations application submitted for these works has now been approved, but it is not known, at this time, when the works will commence.

## 6. REFERENCES

- Account has been taken of the guidance supporting the legislation that is relevant to the
  premises, including the Local Government Association's Fire Safety in Purpose-Built
  Blocks of Flats, LACoRS'<sup>2</sup> Housing Fire Safety. Guidance on fire safety provisions for
  certain types of existing housing and HM Government's Fire Safety Risk Assessment –
  Sleeping Accommodation.
- Where relevant, reference may also have been made to the guidance supporting the Building Regulations and other sources applicable to new buildings. However, this does not imply that existing premises should be brought up to current day standards retrospectively.
- The full titles of British Standards and other references used or quoted in the report are given on the last pages.

<sup>&</sup>lt;sup>2</sup> Local Government Regulation (formerly the Local Authorities Coordinators of Regulatory Services).

# 7. RELEVANT FIRE SAFETY LEGISLATION

7.1	The following fire safety legislation applies to these premises:
	Regulatory Reform (Fire Safety) Order 2005.
7.2	The above legislation is enforced by:
	Local fire and rescue authority.
7.3	Other legislation that makes significant requirements for fire precautions in these premises (other than the Building Regulations 2010):
	Housing Act 2004.
7.4	The other legislation referred to above is enforced by:

7.6 Comments:

7.5

Local authority.

Is there an alterations notice in force?

- Unless otherwise stated, the risk assessment is limited in its scope to the areas covered under the Regulatory Reform (Fire Safety) Order 2005 and includes common access stairways and corridors, common facilities and any fire prevention and fire protection measures necessary to safeguard the use of the common areas of the premises.
- It should be noted that the Housing Act 2004 applies to the residential parts of the premises, and additional fire safety measures may be required under the Housing Act in areas not within the scope of the Regulatory Reform (Fire Safety) Order 2005.
- You are reminded that material alterations involving means of escape, fire warning systems or structural fire precautions require approval from a building control body.

Yes

No ✓

# FIRE HAZARDS AND THEIR ELIMINATION OR CONTROL

8.	ELECTRICAL SOURCES OF IGNITION			
8.1	Are reasonable measures taken to prevent fires of electrical origin?		Yes ✓	No
8.2	More specifically:			
	Fixed installation periodically inspected and tested?	N/A Unk³	Yes ✓	No
	Portable appliance testing carried out?	N/A	Yes 🗸	No
8.3	Comments and hazards observed:			
	<ul> <li>LBHF's policy is to subject the fixed installations serving the common parts of the premises to periodic inspection and test every five years.</li> <li>The fixed installations within tenanted flats are subject to periodic inspection and test in accordance with LBHF's policy and on change of tenancy.</li> <li>Records of the fixed installation tests were not available.</li> <li>There are no portable electrical appliances within the common parts.</li> <li>Portable appliances used by security staff and caretaker services are subject to portable appliance testing in accordance with LBHF's policy and procedures.</li> <li>The fixed installations and portable appliances within leasehold flats have not been considered.</li> <li>The isolation switch for the photovoltaic panels is in the main electrical intake room on the ground floor. Signs have been provided on the external face of the door to the intake room.</li> </ul>			
9.	SMOKING			
9.1	Are reasonable measures taken to prevent fires as a result of smoking?		Yes 🗸	No
9.2	More specifically:			
	Smoking prohibited in appropriate areas?	N/A	Yes 🗸	No
	Suitable arrangements for those who wish to smoke?	N/A	Yes 🗸	No
	Smoking policy appeared to be observed at the time of inspection?	N/A	Yes 🗸	No

<sup>&</sup>lt;sup>3</sup> Unk: "Unknown".

	'No smoking' signs provided in the common areas?	`	Yes ✓	No
9.3	Comments and hazards observed:			
	<ul> <li>Smoking is not permitted in the common areas. 'No smoking' signs have been provided in the common areas.</li> <li>There was no evidence of smoking in the common areas at the time of the survey.</li> <li>Not considered in relation to flats, where it is foreseeable that some occupants may smoke.</li> </ul>			
10.	ARSON			
10.1	Does basic security against arson by outsiders appear reasonable <sup>4</sup> ?	`	Yes ✓	No
10.2	Is there an absence of unnecessary fire load in close proximity to the premises or available for ignition by outsiders?	,	Yes 🔽	No
10.3	Comments and hazards observed:			
	<ul> <li>The main entrance and exit doors to the premises are secured to prevent unauthorised access.</li> <li>The reception and security office, which are permanently staffed, are situated in the ground floor entrance lobby.</li> <li>CCTV is provided to cover the common areas and entrances on the ground floor.</li> <li>Security staff also undertake periodic inspections of the common areas.</li> <li>Chute rooms are located off the common access corridors on Floors 1 to 22. Fire-resisting shutters have been fitted to the base of the chutes.</li> <li>Refuse bins are stored in a bin room on the ground floor, which is accessed externally. Recycling bins are situated outside the block on an external wall. Both sets of bins are collected by the local authority on a regular basis.</li> </ul>			
11.	PORTABLE HEATERS AND HEATING AND VENTILATION INSTALLATIONS			
11.1	Is there satisfactory control over the use of portable heaters?	N/A Y	es 🗸	No
11.2	Are fixed heating and ventilation installations subject to regular maintenance?	N/A ✓ You	es	No

<sup>&</sup>lt;sup>4</sup> C.S. Todd & Associates Ltd are not specialists in the field of security. If specific advice on security (including security against arson) is required, the advice of a security specialist should be obtained.

11.3	Comments and	hazards	observ	ed.
11.0		nazarus	ODSELV	cu.

- There are no portable heaters in use in the common parts.
- Portable heaters in use in the security office/reception are subject to regular inspection and
- There is no fixed heating provided in the common parts.
- Heating systems and portable heaters within individual flats have not been considered. However, it is understood that gas heating systems in tenants' flats are subject to annual gas safety checks and that all tenants' flats have current gas safety certificates.

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12.	COOKING	
12.1	Are reasonable measures taken to prevent fires as a result of cooking?	N/A Yes ✓ No
12.2	Comments and hazards observed:	
	<ul> <li>There are no cooking facilities provided within the common parts.</li> <li>Facilities for making tea and coffee and reheating food is provided in the security office/reception. All equipment used is subject to portable appliance testing in accordance with LBHF's policy and procedures.</li> <li>Cooking facilities in flats have not been considered.</li> </ul>	
13.	LIGHTNING	
13.1	Does the building have a lightning protection system?	Yes ✓ No
13.2	Comments and deficiencies observed:	
	A lightning protection system is fitted to the block.	
14.	HOUSEKEEPING	
14.1	Is the overall standard of housekeeping adequate?	Yes ✓ No
14.2	More specifically:	
	Combustible materials appear to be separated from ignition sources?	Yes V No
	Avoidance of unnecessary accumulation or inappropriate storage of combustible materials or waste?	Yes No ✓

Gas and electricity intake/meter cupboards adequately secured and kept clear of combustible materials?	N/A	Yes	No	<b>√</b>
Comments and hazards observed:				
It is important that the common parts that form				

 It is important that the common parts that form escape routes from the building are kept free of

combustible materials and ignition sources.

- A 'zero tolerance' approach has been introduced, which prohibits the storage of combustible materials and residents' possessions in the common escape
- This policy is communicated to all residents.
- The situation is monitored by LBHF staff, during periodic estate inspections of the premises.
- Overall, the standard of housekeeping in the common escape routes, staircase and corridors was satisfactory, with no significant risks identified.
- However, a mobility scooter was being stored and charged adjacent to Flat 39 on the 5<sup>th</sup> floor.
- The electric meter boxes for the individual flats are situated in the common access corridors. Some of the metal doors to the meter boxes were damaged, some were a poor fit, and others were not adequately secured (see comments in 18.3).

# 15. HAZARDS INTRODUCED BY OUTSIDE CONTRACTORS AND BUILDING WORKS

15.1	Is there satisfactory control over works carried out in the
	building by contractors?

N/A	Yes	<b>√</b>	No	

### 15.2 Comments:

14.3

- LBHF uses approved contractors, who are required to submit method statements, risk assessments for safe systems of work and, where necessary, arrangements for 'hot work' to the client.
- LBHF has appointed a primary approved contractor for major refurbishment works on this estate.
- LBHF also undertakes ongoing monitoring of work carried out by external contractors and internal direct labour maintenance staff on site.

## 16. DANGEROUS SUBSTANCES<sup>5</sup>

16.1 Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises<sup>6</sup>?

N/A	✓	Yes	No	

<sup>&</sup>lt;sup>5</sup> For the purpose of this risk assessment and the Fire Safety Order, dangerous substances are primarily explosive, highly flammable or flammable substances and oxidizing agents.

 $<sup>^{6}</sup>$  Small quantities with negligible impact on the appropriate fire precautions need not be taken into account.

## 16.2 Comments:

There are no dangerous substances used or stored in the common parts.

# 17. OTHER SIGNIFICANT FIRE HAZARDS THAT WARRANT CONSIDERATION

## 17.1 Hazards:

Gas supply pipework is fitted in the common corridors to the flats.

## 17.2 Comments:

- The main gas supply pipework for the block runs vertically through each residential floor within the lobby to the staircases, and gas supply pipes are taken off to serve the individual flats.
- We are informed that the gas installation was installed in accordance with the recommendations of Section 2.42 of Approved Document B, for compliance with the Pipeline Safety Regulations 1996 and the Gas Safety (Installation and Use) Regulations 1998.
- We are also informed that the gas installation is subject to maintenance and servicing in accordance with the Gas Act 1986, as amended by the Gas Act 1995. There were no maintenance and servicing records available for inspection at the time of the survey.

# FIRE PROTECTION MEASURES

18.	MEANS OF ESCAPE			
18.1	Is the design and maintenance of the means of escape considered adequate?		Yes	No 🗸
18.2	More specifically:			
	Are there reasonable distances of travel:			
	<ul> <li>where there is escape in a single direction?</li> </ul>	N/A	Yes 🗸	No
	<ul> <li>where there are alternative means of escape?</li> </ul>	N/A	Yes ✓	No
	Is there adequate provision of exits?		Yes ✓	No
	Do fire exits open in the direction of escape, where necessary?		Yes ✓	No
	Are the arrangements provided for securing exits satisfactory?	N/A	Yes ✓	No
	Is the fire-resisting construction protecting escape routes and staircases of a suitable standard and maintained in sound condition <sup>7</sup> ?		Yes	No ✓
	Is the fire resistance of doors to staircases and the common areas considered adequate, and are the doors maintained in sound condition <sup>8</sup> ?	N/A	Yes	No
	Are suitable self-closing devices fitted to doors in the common areas?	N/A	Yes ✓	No
	Is the fire resistance of doors to meter cupboards/store rooms/plant rooms in the common areas considered adequate, and are they adequately secured and/or fitted with suitable self-closing devices <sup>8</sup> ?	N/A Unk	Yes	No 🗸
	Is the fire resistance of flat entrance doors considered adequate, and are doors maintained in sound condition <sup>8</sup> ?	Unk	Yes	No 🗸

<sup>&</sup>lt;sup>7</sup> This fire risk assessment is based on visual inspection of readily accessible areas, with a degree of sampling where appropriate. It will not necessarily identify all minor fire stopping issues that might exist within the building. If you become aware of other fire stopping issues, or are concerned about the adequacy of fire stopping, you may wish to consider arranging for an invasive survey by a competent specialist.

<sup>8</sup> Based on the sampling we have undertaken, we have made assumptions regarding the adequacy of the fire-resisting doors. However, this fire risk assessment is not intended to be a full compliance survey of the building and there may be other doors that are of a different standard to those seen or which require maintenance. Where issues associated with maintenance are obvious, recommendations are made in the action plan. However, we do not warrant that all such issues have been found and your attention is drawn to the importance of periodic inspection of fire-resisting doors.

Are suitable self-closing devices fitted to flat entrance	Unk	Yes	No 🗸
doors and, where fitted, maintained in good working order?			
Are there adequate smoke control provisions to protect the common escape routes, where necessary?	N/A	Yes	No 🗸
Are all escape routes clear of obstructions?	l	Yes ✓	No
Are all fire exits easily and immediately openable?		Yes ✓	No
Is it considered that the premises are provided with reasonable arrangements for means of escape for disabled people?	N/A	Yes <u>✓</u>	No

## 18.3 Comments and deficiencies observed:

- This is a purpose-built block of flats, and it is our understanding that the design principles embodied in the relevant building legislation/regulations applicable at the time of construction included adequate compartmentation, protected escape routes and the provision of smoke ventilation.
- On this basis, the occupants of the flats, other than those in which a fire occurs, should be able toremain in their flats in relative safety, unless, subsequently, their flat becomes affected by fire or smoke, in which case they should leave, or until theyare directed to leave by the fire and rescue service.
- The means of escape consist of two protected staircases situated at either end of the access corridor to the flats on Floors 1 to 23. The staircases are lobby protected by two sets of fire-resisting doors.
- There is only a single, fire-resisting timber-glazed screen between the common access corridors to the flats and the staircases on Floors 1 to 22. The fire resistance of the screens is understood to be less than 60 minutes. However, it is understood that LBHF have agreed to upgrade the existing protection to both staircases to provide two hours' fire resistance. This will include FD60S self-closing doors, and the replacement of glazed screens with solid construction. In addition, the screens and doors separating the chute rooms from the common corridors will be upgraded to provide 60 minutes' fire resistance as part of the above works.
- The Building Regulations application submitted for these works has been approved. A statement regarding these works has been included in the action plan to this report as a matter of due diligence.
- The staircases are accessed off the common corridors on each floor level. The flat entrance doors open directly onto the common corridors, which also contain the lifts, the chute rooms and service riser

- cupboards. There are no lifts or chute rooms on the 23<sup>rd</sup> floor.
- The common corridors between the two staircases are not sub-divided by fire-resisting screens and doors. This arrangement, although not in accordance with current guidance for newresidential blocks, was, we understand, part of the original design for smoke control to the corridor.
- The staircases discharge direct to open air at ground level.
- The main entrance and exit doors are easily openable from the inside without the use of a key. The exit doors at the base of the staircases are fitted with push bar security devices.
- The fire-resisting doors to the staircases and lobbies are fitted with intumescent strips, cold smoke seals and self-closing devices. It is considered that these doors are likely to provide 30 minutes' fire resistance. However, as detailed above, the doors to the stairs will be replaced with new FD60S doors as part of the agreed works to upgrade the fire protection to the staircases.
- The entrance doors to the flats appeared to be FD30S doors, fitted with protected letterboxes. Most other flat entrance doors were of a similar design. It is, therefore, assumed that, other than the doors detailed below, all other flat entrance doors are also FD30S doors. As part of LBHF's 'Fire Safety Plus' programme, it is understood that, as and when flat entrance doors are due to replaced, they will be replaced with new FD60S doors.
- The flat accessed in 2019 had internal protected hallways; it is, therefore, assumed that all other flats have similar internal protected hallways.
- It was not possible to confirm if all flat entrance doors are fitted with internal self-closing devices. If selfclosing devices are not already fitted to these doors, as a matter of priority, the doors should be fitted with suitable self-closing devices.
- The entrance door to Flat 168 was damaged.
- A mobility scooter was being stored and charged in the common corridor adjacent to Flat 39 on the 5<sup>th</sup> floor (see comment in 14.3).
- The doors to the service risers in some of the lobbies to the staircase are new FD30S doors. The doors are fitted with vents, some of which do not appear to have intumescent linings fitted and some doors are missing intumescent strips and seals.
- A fire-resisting door to a plant area was severely damaged.
- A number of riser cupboard doors located in the corridors had defects.
- A number of fire-resisting doors were missing screws from the hinges.

- Individual electric meter boxes are fitted externally to each of the flats in the common corridors. Most of the doors to the boxes are metal, which would provide a notional period of fire resistance. However, some of the doors were a poor fit in their frames, some were open, and some had defective locks
- The door to the meter box by Flat 74 on the 10<sup>th</sup> floor has been changed to a timber door.
- Natural smoke ventilation to the common corridors is provided in the form of open vents, fitted at high level at either end of the corridors above the doors to the lobbies to the staircases and above the doors to the chute rooms. These vents are ducted to the external elevations and, from the corridors, have automatic opening vents fitted on the external walls to allow smoke to vent to open air in the event of a fire upon activation of smoke detectors in the common corridors. The external vents to the chute rooms are permanently open.
- Breaches to the ducting surrounding the smoke vents were noted at every floor level due to the installation of a new wet rising main (see also 19.4).
- 'FIRE EXIT' signage was restricting the natural smoke vents on every floor.
- Following concerns raised by LFB regarding the effectiveness of the existing smoke ventilation, LBHF commissioned BRE to investigate the performance of the ventilation system. The conclusions of the BRE report considered that the ventilation provided on Floors 1 to 22 was below the expected standard of performance under present guidance. It was also considered that improvements could be achieved to the ventilation on the 23<sup>rd</sup> floor. Following the submission of the BRE report, and further discussions with LFB and CSTA, LBHF agreed to provide additional smoke ventilation to the corridors and chute rooms and review the ventilation to the lift shaft, in line with the recommendations of the BRE report.
- The works detailed in the BRE report to improve the smoke ventilation to the common corridors, chute rooms and lift shaft have received Building Regulations approval. However, although we understand that these works will be implemented, a statement regarding these works has been included in the action plan to this report as a matter of due diligence.
- The smoke vents at the head of each stair are understood to be remotely electrically operated at fire and rescue service access level. It is reported that the LFB was satisfied with this arrangement. However, to maximise the efficiency of corridor ventilation, the head of stair vents should be automatic in operation.

 The staircases/lobbies are safe for use as refuges by disabled people evacuating from the flat of fire origin. It is not normal practice to provide refuge signage or communications systems in these circumstances, and those needing assistance would be expected to seek help from other residents, or to use mobile telephones to contact the emergency services.

# 19. MEASURES TO LIMIT FIRE SPREAD AND DEVELOPMENT

19.1 Given the evacuation strategy, is it considered that there is/are:

	Reasonable limitation of linings to escape routes that may promote fire spread?		Yes ✓	No
	As far as can reasonably be ascertained, reasonable fire separation within any roof space?	N/A ✓ Unk	Yes	No
	Adequately fire protected service risers and/or ducts in common areas, that will restrict the spread of fire and smoke?	N/A Unk	Yes	No 🗸
19.2	Is it considered that:			
	There are adequate levels of compartmentation between floors and between flats and the common escape routes <sup>7</sup> ?	Unk	Yes <u>√</u>	No
	As far as can reasonably be ascertained, there are fire dampers provided as necessary to protect critical means of escape against passage of fire, smoke and combustion products in the early stages of a fire <sup>9</sup> ?	N/A Unk	Yes 🗸	No
19.3	Has the risk of fire spread over the external walls been considered?		Yes 🗸	No

## 19.4 Comments and deficiencies observed:

- This is a purpose-built block of flats, and it is our understanding that the design principles embodied in the building legislation/regulations applicable at the time of construction included adequate compartmentation.
- The floors, staircase and corridors are of concrete construction.
- There was no evidence to suggest that the existing compartmentation would not support a 'stay put' strategy.
- It was not possible to confirm if the materials used to cover the disused vertical smoke shafts in the

 $<sup>^{9}</sup>$  A full investigation of the design of HVAC systems is outside the scope of this fire risk assessment.

- common corridors will provide a minimum fire resistance of 60 minutes.
- The riser shafts in the common access corridors are fire stopped at each floor level. Small openings around services and pipes appear to have been adequately fire stopped in the risers accessed.
- There is a metal air vent fitted in the wall to Flat 140 on the 18<sup>th</sup> floor.
- There is a large open vent in the wall adjacent to the chute room on the 22<sup>nd</sup> floor. It was not possible to confirm the nature or purpose of the vent.
- Small mechanical extract vents are fitted in the walls separating the flats from the chute rooms. It appears that these are extract vents from kitchens in the flats located on either side of the chute rooms. The chute rooms will be provided with permanent open vents and openable windows, and the smoke ventilation duct extended through to the external elevation, as part of the works detailed in 18.3 above, to improve the smoke ventilation to the corridors and staircases.
- There are two refuse chutes installed in the chute rooms on each floor level, which are fitted with metal access doors. The refuse chutes are fitted with fireresisting shutters at their base in the bin room.
- The compartmentation within the flats was not considered in this risk assessment. However, the 2018 fire risk assessment report did determine the extent of any riser shafts or ventilation ducts that might compromise the compartmentation between floors in one of the flats. We understand no works have been carried out internally within the flats since the 2018 risk assessment and it is, therefore, assumed that the comments made in that risk assessment, detailed below, still apply. The kitchens and bathrooms have external windows. There was, what appeared to be, a relatively new, internal ducted ventilation system, with vents in each room connected to a central fan unit that was ventedto an external wall.
- There were also what appeared to be original riser/service shafts and/or ventilation ducts to the rear of cupboards in the kitchen and in the bathroom. It was not possible to access these areas to confirm if these risers/ducts are open between floors or if they have been adequately fire stopped. However, the partitions enclosing these risers/ducts were in a poor state of repair, there were openings in some areas and the materials used did not appear to be fire resisting.
- Breaches were noted through the compartment floors due to the installation of the wet rising main.
- While we have taken note of the construction of the external walls of this building, it is often impossible in a fire risk assessment of this nature to determine,

in detail, the propensity of such walls to spread fire externally. In order to comment definitively on this, specialist investigation, which may involve testing of materials and invasive survey, is often necessary to establish the exact details of the external wall construction and/or the nature of all the materials used and whether suitable cavity barriers have been where applicable. Such a specialist investigation would also be necessary to establish the behaviour of the materials and the wall build up in fire and whether or not this is in accordance with the relevant benchmark guidance for a building of this type and use. Unless such an investigation has been carried out, we can only complete this risk assessment on the assumption that there is no undue risk to the health and safety of relevant persons from external fire spread.

- commissioned BRE to undertake LBHF examination of over-cladding used on the external elevations of the block. The report considered the build-up of the external façades of the block to confirm if the materials were as stated by the contractor following a refurbishment project circa 2010. The report concluded that, based on the evidence provided by LBHF and limited visual inspections, it would appear that the systems were constructed from the products detailed by LBHF in line with the relevant drawings. The report also concluded that the EWI system fitted to the northern and southern elevations has a declared reaction to fire of A2-s1, d0, so satisfying the original recommendations of Approved Document B for materials of limited combustibility. In the case of the easterly and westerly elevations, the BRE report concluded that, provided adequate cavity barriers have been installed, the wall build-up of these elevations would satisfy the recommendations of Approved Document B, in that a similar wall build-up has been tested in accordance with BS 8414 and classified in accordance with BR 135.
- The BRE report also commented on the photovoltaic panels fitted on one elevation of the block. Although not part of the façade system, the report did identify that the refurbishment work carried out in 2010 involved the removal of an outer brick skin to this elevation, and that an external wall insulation system was applied to the remaining blockwork substrate. The report stated that it would be prudent to obtain information on the performance, in case of fire, of the photovoltaic system.
- The photovoltaic panels are fitted on one elevation of the building and extend from the 4<sup>th</sup> to the 23<sup>rd</sup> floors. To our knowledge, there has been limited research carried out on the fire performance of photovoltaic panels fitted in a vertical plane on the

external elevation of buildings. However, at this stage, this risk is unquantifiable, as we have not been provided with any information to confirm the construction of the wall behind the panels, the materials used in the construction of the panels, their performance in fire tests or the system used toattach the panels to the external façade of the building.

 There are also four smaller photovoltaic panels fitted on the roof.

20.	EMERGENCY ESCAPE LIGHTING	
20.1	Has a reasonable standard of emergency escape lighting been provided <sup>10</sup> ?	N/A Yes V No
20.2	Comments and deficiencies observed:	
	Emergency lighting is provided throughout the common escape routes, staircase, corridors, and plant and service rooms.	
21.	FIRE SAFETY SIGNS AND NOTICES	
21.1	Is there a reasonable standard of fire safety signs and notices?	N/A Yes No 🗸
21.2	Comments and deficiencies observed:	
	<ul> <li>'FIRE EXIT' signs are provided in the common escape routes, staircase and corridors.</li> <li>'FIRE DOOR KEEP SHUT' signs are provided on the doors to the staircase and to meter and service riser cupboards.</li> <li>Fire action notices are provided in the common areas, with information provided to support the 'stay put' policy.</li> <li>Signs, detailing the number of each floor, have been provided in the staircase. However, signs have not been provided opposite the fireman's lift.</li> <li>A fire and rescue service premises information box is provided in the entrance foyer to the block, which includes relevant information on vulnerable residents.</li> </ul>	
22.	MEANS OF GIVING WARNING IN CASE OF FIRE	
22.1	Have smoke/heat alarms or has some other form of fire detection and fire warning been provided in the flats?	Unk Yes V No
22.2	Is a reasonable fire detection and alarm system provided in the common areas, where necessary <sup>11</sup> ?	N/A Yes V No

<sup>&</sup>lt;sup>10</sup> Based on visual inspection, but no test of illuminance levels or verification of full compliance with relevant British Standards carried out.

 $<sup>^{11}\,\</sup>text{Based on visual inspection, but no audibility tests or verification of full compliance with relevant British Standard carried out.}$ 

22.3 Where appropriate, has a fire alarm zone plan been provided?

22.4	Where appropriate, are there adequate arrangements for	N/A	Yes	✓
	silencing and resetting an alarm condition?			

- 22.5 Comments and deficiencies observed:
  - A fire detection and alarm system has been provided within the common parts. The system has primarily been installed to operate automatic smoke vents fitted to the common access corridors and lift lobbies to the flats. The system is not designed to alert residents in the event of a fire or to initiate an evacuation of the block.
  - The system consists of smoke detectors fitted in the common access corridors to the flats and lift lobbies, and smoke and heat detectors fitted in the staircases, plant and service rooms and the reception/security office. The system also extends into the offices and community rooms on the ground floor. The main control and indicating panel is fitted in the main entrance lobby and a secondary panel is fitted in the reception/security office. Only three floors are currently fitted with detectors in the staircase (4<sup>th</sup>, 7<sup>th</sup> and 23<sup>rd</sup> floors).
  - The operation of smoke detectors fitted in the common access corridors and lift lobbies to the flats on Floors 1 to 23 is configured to operate the smoke vents on the floor of origin only and will sound an audible alarm at the control and indicating panels to alert security.
  - The operation of detectors in the staircases between Floors 1 to 22 is configured such that an audible alarm will only sound at the control and indicating panels to alert security.
  - The operation of smoke detectors in the staircases on the 23<sup>rd</sup> floor is configured such that the smoke vents will operate on the floor of origin; the detectors will sound an audible alarm at the control and indicating panels to alert security, and the domestic smoke and heat alarms fitted in the penthouse flats will activate to initiate an evacuation of the penthouse flats.
  - The operation of any of the detectors described above will also sound the alarms fitted in the ground floor offices/community rooms to initiate an evacuation of the offices/community rooms.
  - The operation of detectors and manual call points fitted in plant and service rooms will sound an audible alarm in the plant rooms and an audible signal at the control and indicating panels to alert security.

- The smoke vents fitted at the head of both staircases are not linked to the fire detection and alarm system and are manually opened by activation of a 'break glass' switch fitted in the entrance lobby on the ground floor. To maximise efficiency of the smoke control system, the smoke vents at the head of each stair should open automatically when AOVs in a corridor operate or if smoke is detected in the stair.
- The lifts are not interfaced with the fire detection and alarm system.
- Although outside the scope of the Regulatory Reform (Fire Safety) Order 2005, it is recommended that smoke alarms are installed in all domestic premises, and, where this is not already the case, residents should be advised to fit smoke alarms in their flats.
- The flat accessed during the previous FRA site visit in August 2019 was fitted with smoke alarms in the hall and the lounge and a heat alarm in the kitchen, which is consistent with a Grade D1, Category LD2 system as defined in BS 5839-6.
- It is recommended that any flats occupied by vulnerable residents should, in the long term, be fitted with a Grade D1, Category LD1 system according to the recommendations of BS 5839-6, and that the system should be connected to a Telecare monitoring system to provide an early call to the fire and rescue service in the event of a fire within the flat of fire origin.

# 23. MANUAL FIRE EXTINGUISHING APPLIANCES

23.1	Is there reasonable provision of manual fire extinguishing appliances?	N/A	Yes 🗸	No
23.2	Are all fire extinguishing appliances readily accessible?	N/A	Yes 🗸	No

- 23.3 Comments and deficiencies observed:
  - There are no fire extinguishers in the common parts, which is consistent with the general approach typically taken within blocks of flats of this type.
  - Extinguishers have been provided in plant and service rooms.

# 24. RELEVANT AUTOMATIC FIRE EXTINGUISHING SYSTEMS<sup>12</sup>

# 24.1 Type of fixed system:

Automatic domestic sprinklers have been fitted to the flats on the 23<sup>rd</sup> floor.

# 25. OTHER RELEVANT FIXED SYSTEMS AND EQUIPMENT<sup>13</sup>

# 25.1 Type of fixed system:

- Wet rising mains.
- Fireman's lifts.
- Automatic and manual vents for smoke control.

## Comments:

- A wet rising main is fitted to the block, and outlets are provided on each floor level within the common corridors.
- A new wet rising main has been provided with outlets in the staircase lobbies.
- The fireman's lifts are the original lifts installed at the time of construction and are fitted with a fire control switch that returns the lifts to the ground floor on activation of the switch. It is understood that one of the existing lifts will be upgraded, to meet, as far as practically and technically possible, the recommendations for a modern fire-fighting lift in accordance with the recommendations of BS 9999 and the requirements of BS EN 81-72.
- Automatic smoke vents are fitted to the common access corridors and lift lobbies; these are linked to the fire detection and alarm system. A manual break glass' switch is fitted in the entrance lobby to allow the fire and rescue service to open the vents at the head of the staircases.

<sup>&</sup>lt;sup>13</sup> Relevant to life safety and this risk assessment (as opposed to property protection).

# MANAGEMENT OF FIRE SAFETY

## 26. PROCEDURES AND ARRANGEMENTS

## 26.1 Safety Assistance:

The competent person(s) appointed under Article 18 of the Fire Safety Order to assist the Responsible Person in undertaking the preventive and protective measures (i.e. relevant general fire precautions) is:

Principal Compliance Manager, LBHF, with assistance from external consultants.

26.2 Fire safety at the premises is managed by 14:

Housing Service Director, LBHF Housing Services Division.

26.3 Is there a suitable record of the fire safety arrangements?

N/A	∕es 🗸	No	
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### Comments:

LBHF has a policy incorporating fire safety in purposebuilt blocks of flats.

Are procedures in the event of fire appropriate and properly documented, where appropriate?

Yes	✓	No	

## Comments:

- A 'stay put' evacuation policy is considered appropriate.
- In the event of a fire within an individual flat, the occupants would be expected to alert others in the flat, make their own way out of the building using the common escape routes, and summon the fire and rescue service.
- Consistent with residential flats of this type, all other occupants of flats not directly affected by a fire should be able to remain in their flats in relative safety, unless, subsequently, their flat becomes affected, or until they are directed to evacuate the building by the fire and rescue service.
- This does not imply that residents not directly affected, who become aware of a fire, should not evacuate if they are in any doubt about their safety and wish to leave, and it is safe for them to do so.
- It is understood that LBHF have provided tenants and leaseholders with fire safety advice and

<sup>&</sup>lt;sup>14</sup> This is not intended to represent a legal interpretation of responsibility, but merely reflects the managerial arrangement in place at the time of this risk assessment.

	information on the action to take in the event of a fire, as part of the 'Fire Safety Plus' programme.		
26.5	Are routine in-house inspections of fire precautions undertaken (e.g. in the course of health and safety inspections)?	N/A Unk	Yes 🗸 No 🔝
	Comments:		
	Routine estate inspections are carried out and recorded. Any defects found are reported internally to the main contractor, who will undertake the necessary repairs.		
27.	TRAINING AND DRILLS		
27.1	Are all staff given adequate fire safety instruction and training?	N/A	Yes ✓ No
	Comments:		
	Security staff are provided with training on induction and receive annual refresher training on line.		
27.2	When the employees of another employer work in the premises, is appropriate information on fire risks and fire safety measures provided?	N/A	Yes ✓ No
	Comments and deficiencies observed:		
	Information for contractors is provided in accordance with 15.2.		
28.	TESTING AND MAINTENANCE		
28.1	Is there adequate maintenance of the workplace?		Yes ✓ No
	Comments and deficiencies observed:		
	Overall, the block was reasonably well maintained, with only a small number of issues.		
28.2	Is weekly testing and periodic servicing of the fire detection and alarm system undertaken?	N/A Unk	Yes  No ✓
	Comments and deficiencies observed:		
	<ul> <li>It was not possible to confirm if the system is subject to weekly tests.</li> <li>Periodic quarterly servicing is carried out by an</li> </ul>		

external contractor.

Residents are responsible for testing their own

smoke alarms on a regular basis.

28.3	Are monthly and annual testing routines in place for the emergency escape lighting?	N/A Unk	Yes ✓	No
	Comments and deficiencies observed:			
	<ul> <li>Monthly and annual tests of the emergency escape lighting are carried out by an external contractor.</li> <li>The date of the last annual test was not available for audit.</li> </ul>			
28.4	Is annual maintenance of fire extinguishing appliances undertaken?	N/A	Yes	No ✓
	Comments and deficiencies observed:			
	Some extinguishers provided in the plant and service rooms were found to be outside of their annual test, with			

- 28.5 Other relevant inspections or tests:
  - Wet rising main.
  - Fireman's lift.
  - Lightning protection.
  - Automatic domestic sprinkler systems fitted to flats on the 23<sup>rd</sup> floor.
  - Automatic smoke vents.

a recorded date of June 2019.

# Comments:

- The wet rising main is, we understand, subject to inspection and test by an external contractor. However, there were no records available for the annual tests.
- The fireman's lifts are, we understand, subject to monthly servicing and six-monthly tests by an external contractor. However, there were no records available to audit.
- The lightning protection system is subject to annual inspection and test by an external contractor. However, there were no records available to audit.
- The automatic sprinkler systems fitted in the flats are subject to annual maintenance by an external contractor. However, there were no records available to audit.
- The automatic smoke vents are subject to periodic maintenance and test by an external contractor. However, there were no records available to audit.

# 29. RECORDS

29.1	Are there appropriate records of:	
	Fire alarm tests (where relevant)?	N/A  Yes  No ✓
	Emergency escape lighting tests?	N/A  Yes  No ✓
	Maintenance and testing of other fire protection	N/A Yes No ✓

# 29.2 Comments:

• Records are held locally/centrally.

systems and equipment?

 It was not possible to view the current test records for the inspection and tests for the lightning protection system, emergency lighting, fire detection and alarm system, rising main, automatic sprinkler system and fireman's lifts, which, we understand, are held centrally.

# FIRE RISK ASSESSMENT

The following simple risk level estimator is based on a fire risk level estimator contained in PAS 79:

Potential consequences of fire →	Slight harm	Moderate harm	Extreme harm
Likelihood of fire <b>Ψ</b>			
Low	Trivial risk	Tolerable risk	Moderate risk
Medium	Tolerable risk	Moderate risk	Substantial risk
High	Moderate risk	Substantial risk	Intolerable risk

Taking into account the fire prevention measures observed at the time of this risk assessment, it is considered that the hazard from fire (likelihood of fire) at these premises is:

In this context, a definition of the above terms is as follows:

Low: Unusually low likelihood of fire as a result of negligible potential sources of

ignition.

**Medium:** Expected likelihood of fire given the presence of the normal fire hazards

(e.g. potential ignition sources) for this type of occupancy, which are generally subject to appropriate controls (other than minor shortcomings).

High: Significant increase in the likelihood of fire due to lack of adequate

controls applied to one or more significant fire hazards.

Taking into account the nature of the premises and the occupants, as well as the fire protection and procedural arrangements observed at the time of this fire risk assessment, it is considered that the consequences for life safety in the event of fire would be:

Slight harm | Moderate harm ✓ Extreme harm |

In this context, a definition of the above terms is as follows:

Slight harm: Outbreak of fire unlikely to result in serious injury or death of any occupant

beyond the flat of fire origin.

**Moderate harm:** Outbreak of fire could foreseeably result in injury (including serious injury)

of one or more occupants beyond the flat of fire origin, but is unlikely to

result in multiple fatalities.

**Extreme harm:** Significant potential for serious injury or death of one or more occupants

beyond the flat of fire origin.

Accordingly, It	t is considered tha	at the risk to life fro	m fire at these premis	ses is:	
Trivial	Tolerable	Moderate ✓	Substantial	Intolerable	
Comments:					

An explanation as to why the risk has been rated as shown above is given in the Executive Summary.

A suitable risk-based control plan should involve effort and urgency that is proportional to risk. The following risk-based control plan is based on one advocated in PAS 79:

Risk Level	Action and Timescale	
Trivial	No action is required and no detailed records need be kept.	
Tolerable	No major additional controls required. However, there might be a need for improvements that involve minor or limited cost.	
Moderate	It is essential that efforts are made to reduce the risk. Risk reduction measures should be implemented within a defined time period.  Where moderate risk is associated with consequences that constitute extreme harm, further assessment might be required to establish more precisely the likelihood of harm as a basis for determining the priority for improved control measures.	
Substantial	Considerable resources might have to be allocated to reduce the risk. If the building is unoccupied, it should not be occupied until the risk has been reduced. If the building is occupied, urgent action should be taken.	
Intolerable	Building (or relevant area) should not be occupied until the risk is reduced.	

NOTE THAT, ALTHOUGH THE PURPOSE OF THIS SECTION IS TO PLACE THE FIRE RISK IN CONTEXT, THE ABOVE APPROACH TO RISK ASSESSMENT IS SUBJECTIVE AND FOR GUIDANCE ONLY. ALL HAZARDS AND DEFICIENCIES IDENTIFIED IN THIS REPORT SHOULD BE ADDRESSED BY IMPLEMENTING ALL RECOMMENDATIONS CONTAINED IN THE FOLLOWING ACTION PLAN. THE FIRE RISK ASSESSMENT SHOULD BE REPEATED REGULARLY.

## REFERENCES

# **Guidance in Support of Fire Safety Legislation**

## **England and Wales**

HM Government Guides to Fire Safety Risk Assessment, DCLG:

- Offices and Shops.
- Factories and Warehouses.
- Sleeping Accommodation.
- Residential Care Premises.
- Educational Premises.
- Small and Medium Places of Assembly.
- · Large Places of Assembly.
- Theatres, Cinemas and Similar Premises.
- Open Air Events and Venues.
- Healthcare Premises.
- Animal Premises and Stables.
- Transport Premises and Facilities.
- Means of Escape for Disabled People.

### Scotland

Scottish Government: Practical Fire Safety Guidance:

- Existing Non-Residential Premises.
- Existing Premises with Sleeping Accommodation.
- · Care Homes.
- · Healthcare Premises.
- The Evacuation of Disabled Persons from Buildings.

## Northern Ireland

**DHSSPS Sector Specific Guidance Documents:** 

- Sleeping Accommodation.
- Offices and Shops.
- Healthcare Premises.
- · Theatres, Cinemas and Similar Premises.
- Small and Medium Places of Assembly.
- Open Air Events.

## **Guidance in Support of Building Regulations**

## **England and Wales**

Approved Document B. Fire Safety. Volume 1: Dwellings, 2019 edition incorporating 2020 amendments. Approved Document B. Fire Safety. Volume 2: Buildings other than dwellings, 2019 edition incorporating 2020 amendments.

## Scotland

Technical Handbook 2019, Non-Domestic - Fire.

## Northern Ireland

Technical Booklet E 2012.

# **Fire Safety Design and Management**

BS 9991:2015. (Incorporating corrigendum No. 1.) Fire safety in the design, management and use of residential buildings. Code of practice.

BS 9999:2017. Fire safety in the design, management and use of buildings. Code of practice.

## **Fire Detection and Fire Alarm Systems**

BS 5839-1:2017. Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.

BS 5839-6:2019+A1:2020. Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises.

BS 5839-8:2013. Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of voice alarm systems.

BS 5839-9:2011. Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems.

## **Fire Extinguishing Appliances**

BS 5306-1: 2006. Code of practice for fire extinguishing installations and equipment on premises - hose reels and foam inlets.

BS 5306-3:2017. Fire extinguishing installations and equipment on premises. Commissioning and maintenance of portable fire extinguishers. Code of practice.

BS 5306-8:2012. Fire extinguishing installations and equipment on premises - Selection and positioning of portable fire extinguishers - Code of practice.

BS EN 3. Portable fire extinguishers.

BS EN 671-3:2009. Fixed fire-fighting systems. Hose systems. Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose.

BS EN 1869:2019. Fire blankets.

## **Emergency Escape Lighting**

BS 5266-1:2016. Emergency lighting - Code of practice for the emergency lighting of premises.

BS 5266-8:2004. (BS EN 50172: 2004). Emergency escape lighting systems.

BS EN 1838:2013. Lighting applications – Emergency lighting.

## **Fire Safety Signs**

BS 5499-4:2013. Safety signs. Code of practice for escape route signing.

BS ISO 3864-1:2011. Graphical symbols. Safety colours and safety signs. Design principles for safety signs and safety markings.

BS EN ISO 7010:2020+A1:2020. Graphical symbols – Safety colours and safety signs – Registered safety signs.

BS 5499-10:2014. Guidance for the selection and use of safety signs and fire safety notices.

## **Fixed Fire Extinguishing Systems and Equipment**

BS EN 12845:2015+A1:2019. Fixed fire-fighting systems. Automatic sprinkler systems. Design, installation and maintenance.

BS 9251:2021. Fire sprinkler systems for domestic and residential occupancies - Code of practice.

BS 9990:2015. Non-automatic fire-fighting systems in buildings. Code of practice.

#### Lightning

BS EN 62305-1:2011. Protection against lightning. General principles.

BS EN 62305-2:2012. Protection against lightning. Risk management.

BS EN 62305-3:2011. Protection against lightning. Physical damage to structures and life hazard.

BS EN 62305-4:2011. Protection against lightning. Electrical and electronic systems within structures.

### Miscellaneous

BS 7176:2007+A1:2011. Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites.

BS 7273-4:2015+A1:2015. Code of practice for the operation of fire protection measures. Actuation of release mechanisms for doors.

BS 7671:2018+A1:2020. Requirements for Electrical Installations. IET Wiring Regulations. Eighteenth Edition. IET Code of Practice for In-service Inspection and Testing of Electrical Equipment. Fifth Edition.

BS 8899:2016. Improvement of fire-fighting and evacuation provisions in existing lifts. Code of practice.

PAS 79-1:2020. Fire risk assessment. Premises other than housing. Code of practice.

## **Published Guidance on Control of Contractors**

Standard Fire Precautions for Contractors Engaged on Crown Works, Department of Environment, HMSO.

Fire Prevention on Construction Sites. Fire Protection Association.

Fire Safety in Construction. HSG168 (2nd edition) HSE.

# **BAFE SP205 CERTIFICATE OF CONFORMITY**

Life Safety Fire Risk Assessment Gold Approved Scheme CERTIFICATE OF CONFORMITY



This certificate is issued by the Approved Company named in Part 1 of the Schedule in respect of the fire risk assessment provided for the person(s) or organisation named in Part 2 of the Schedule at the premises and / or part of the premises identified in Part 3 of the schedule.

SCHEDU	SCHEDULE			
Part 1	NSI Life Safety Fire Risk Assessment Gold Approved Organisation			
	C.S. Todd & Associates Ltd			
	BAFE Registration Number			
	NSI 00342			
Part 2	Name of Client			
	London Borough of Hammersmith and Fulham			
Part 3	Address of premises for which the fire risk assessment was carried out			
	Norland House, Edward Woods Estate, White City, London W11			
	Part or parts of the premises to which the fire risk assessment applies			
	Common parts (see report for details).			
Part 4	Brief description of the scope and purpose of the fire risk assessment			
	The purpose of the fire risk assessment is to provide an assessment o to life from fire, and, where appropriate, to make recommendations to compliance with fire safety legislation. It does not address the risk to pro- business continuity from fire.			
Part 5	Effective date of the fire risk assessment	23 June 2021		
Part 6	Recommended date for review of the fire risk assessment	June 2022		

We, being currently a NSI Approved BS EN ISO 9001 organisation in respect of fire risk assessment identified in the above schedule, certify that the fire risk assessment referred to in the above schedule complies with the Specification identified in the above schedule under the control of our Quality Management System (identified on our NSI approval certificate) and with all other requirements as currently laid down within BAFE SP205 Scheme in respect of such fire risk assessment.

Signed (for and on behalf of the issuing Approved organisation)	
Job Title	Technical Director (Validator)
Date	27 August 2021

Life Safety Fire Risk Assessment Gold is an Approval Scheme of Insight Certification Ltd, Sentinel House, 5 Reform Road, Maidenhead, Berkshire, SL6 8BY

BAFE, Bridges 2, The Fire Service College, London Road, Moreton-in-Marsh, GL56 0RH.

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- 1 This certificate is used subject to NSI Regulations and Rules of the NSI LIFE SAFETY FIRE RISK ASSESSMENT GOLD Approval Scheme.
- 2 NSI reserves the right to conduct an audit by an authorised representative of NSI during normal business hours, with the permission of the customer, of the fire risk assessment and its related premises in order to ensure that the said risk assessment complies with BAFE Scheme document SP205-1 (the Scheme) Section 7 and generally.
- 3 NSI requires every NSI LIFE SAFETY FIRE RISK ASSESSMENT GOLD Approved Company to issue a Certificate of Conformity in accordance with the Scheme for all fire risk assessments it carries out that wholly or partly address life safety.
- The Certificate of Conformity when completed is a clear statement that the Approved Company conducted the fire risk assessment for life safety, it is suitable and sufficient and compliant with the BAFE SP205-1 Scheme document and is certified by a registered competent fire risk assessor.
- 5 Where life safety and other aspects of fire protection are addressed in the same fire risk assessment a Certificate of Conformity shall be issued but the certificate shall make clear that the certificate applies only to the life safety aspects of the fire risk assessment and not further or otherwise.
- Should the customer be dissatisfied with the fire risk assessment covered by this certificate, he/she should at first contact the Approved Company at its local office. If satisfaction is not obtained, the customer should address a written complaint to the customer services department at the head office of the Approved Company. If the customer remains dissatisfied, he/she may address a written complaint, outlining the nature of his/her dissatisfaction and the circumstances of the fire risk assessor company's response, to the Customer Care Manager at NSI.

NSI will not normally consider complaints unless the Approved company has been given the opportunity to resolve the dispute as set out above.

Subject thereto and as hereinafter provided, NSI will endeavour to assist in the resolution of the dispute between the contracting parties, provided always that NSI will not deal with or be involved in any discussions or negotiations with either party with regard to financial or other loss, claims or potential loss claims, outstanding payments or construction and/or interpretation of the Approved Company's terms and conditions of contract.

NSI shall not be liable for any act or omission arising from any assistance it may provide as hereinbefore provided unless such act or omission is shown to have been fraudulent or deceifful.

- 7 This Certificate confirms conformity with the requirements of BAFE Scheme document SP205-1 applicable at the date of issue by the issuing company. NSI does not undertake to investigate any query or complaint in relation to future changes to BAFE scheme documents, policies or other regulations that render the fire risk assessment in need of further updating. In that event, the appropriate update should be carried out by a company holding NSI LIFE SAFETY FIRE RISK ASSESSMENT Approval.
- 8 NSI does not accept any responsibility or liability for any fire risk assessment produced by the Approved Company
- 9 Unless the issuing company's obligation to NSI in respect of the fire risk assessment are undertaken by another NSI Approved Company, NSI will not enforce its Rules or Standards on the Approved Company or on its successor in business in respect of any fire risk assessments after the issuing company ceases to hold NSI LIFE SAFETY FIRE RISK ASSESSMENT Approval.
- 10 The Certificate is issued subject to the terms and conditions of the company issuing the certificate for the fire risk assessment service.
- On this certificate and in these terms and conditions, where the context permits, the reference to the issuing company shall include any Approved Company who shall undertake the issuing company's obligations to NSI in respect of the fire risk assessment.

#### Footnote.

"SP205" is a Scheme Document published by the British Approvals for Fire Equipment (BAFE).

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