

Fire Risk Assessment



Property Owner: MCC
Date: 19/12/2023
Assessor: Stephen Brennan, TechIOSH, GIFireE,
AIFSM, DipFD

Address: Litcham Close
Brunswick
Manchester
M1 7JW

Fire Risk Assessment Report Contents

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Issue and Revision Record

| Revision | Date | Originator | Checker | Description |
|----------|------------|---|---|---------------------|
| A | 19/12/2023 | Stephen Brennan, TechIOSH, GFireE, AIFSM, DipFD | Callum McLeod, BEng (Hons), AIFireE, MIFSM, CFRAR | Original Production |
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Hughes and Associates Property Services Ltd

105 Carrow Rd

Norwich

NR1 1HP

Tel: 0333 335 5330

Company Registration Number: 6950290

Nomenclature

The following abbreviations have been used within this report, the below table provides a brief description of each abbreviation.

| Abbreviation | Description |
|----------------|---|
| ADB | Approved Document B |
| BS | British Standard |
| EVCS | Emergency Voice Communications System |
| AFP | Active Fire Protection |
| AFD | Automatic Fire Detection |
| PFP | Passive Fire Protection |
| FD(XX) | Fire door rated to XX minutes, i.e. FD30 – Fire Door rated to 30minutes integrity |
| FD(XX)S | Fire door rated to XX minutes with cold smoke protection, i.e. FD30 – Fire Door rated to 30minutes integrity with cold smoke protection |
| MSFD | Motorised Smoke and Fire Damper |
| RRO | Regulatory Reform (Fire Safety) Order 2005 |
| EL | Emergency Lighting |
| GEEP | General Emergency Evacuation Plan |
| PEEP | Personal Emergency Evacuation Plan |
| MIP | Mobility Impaired Persons |
| OV | Opening Vent |
| AOV | Automatic Opening Vent |
| ASET | Available Safe Egress Time |
| FRA | Fire Risk Assessment |
| RRO | Regulatory Reform Order 2005 |
| RAMS | Risk Assessment and Method Statements |
| RP | Responsible Person |
| PTW | Permit to Work |
| DSEAR | Dangerous Substances and Explosive Atmosphere |
| COMAH | Control of Major Accidents and Hazards |
| ARC | Alarm Receiving Centre |
| FS | Fire Safety or Firestopping |

Document Overview

| Section | Content |
|---|---|
| Executive Summary | Overview of the assessed premises and risk assessment findings |
| Introduction | States the objectives and approach taken to produce this Fire Risk Assessment |
| Building Details | States relevant building specifications and relevant people at risk |
| Estimated Levels of Risk | Details how levels of risk and timescales are determined |
| Observations and Overview of Assessment | Systematically reviews various fire safety aspects of the buildings' fire safety |
| Risk Register | Displays risks observed whilst on site, along with recommended actions and timescales |
| Risk Rating Summary | Provides an overall risk rating for the building |

Relevant Fire Safety Standards Regulation and Guidance

| Regulation |
|---|
| The Regulatory Reform (Fire Safety) Order 2005. London: HM Government, 2005 |
| The Fire Safety (Scotland) Regulations 2006 |
| The Building Regulations 2010 |
| The building (Scotland) Regulations 2004 |
| Equality Act 2010 |
| Health and Safety (Safety Signs and Signals) Regulations 1996 [3] in regard to safety signs at work |
| EC Directive 92/58/EEC |
| Health and Safety at Work etc Act 1974 |
| Housing Act 2004 |
| Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) |
| The Dangerous Substances and Explosive Atmospheres Regulations 2002 |
| The Health and Safety (Safety Signs and Signals) Regulations 1996 |

Standards and Codes of Practice

| Standard | BSI Standards and Codes of Practice |
|--|--|
| BS 9999:2017 | Fire Safety in the design, management, and use of buildings - Code of practice. |
| BS 9991:2015 | Fire safety in the design, management, and use of residential buildings – Code of practice |
| Approved Document B, The Building Regulations 2010, Fire Safety Volume 1: Dwelling Houses. | |
| BS 9997:2019 | Fire Risk Management Systems |
| BS 5266-1:1999 | Emergency Lighting |

| | |
|---|---|
| BS 5499-10: | Emergency lighting. Code of practice for the emergency lighting of premises. |
| 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: 2013 | Fire detection and fire alarm systems for buildings – Part 6: Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises. |
| BS EN 12101-2:2017 | Smoke and heat control systems. Part 2: Natural smoke and heat exhaust ventilators. |
| BS 7974:2019 | Application of fire safety engineering principles to the design of buildings. Code of practice |
| BS 7671:2018 | Requirements for electrical installations. IET Wiring Regulations. Seventeenth edition |
| BS EN 60947: 2017 | Low-voltage switchgear and control gear. Circuit-breakers |
| BS 7346-8:2013 | Components for smoke control systems. Part 8: Code or practice for planning, design, installation, commissioning and maintenance. |
| BS 8519: 2010 | Selection and installation of fire-resistant power and control cable systems for life safety and firefighting applications – Code of practice |
| ASFP | Association of Fire Safety Specialists |
| BS 8214:2016 | Timber-based fire door assemblies - Code of practice. |
| EN 1125: 2008 | Building hardware. Panic exit devices operated by a horizontal bar, for use on escape routes. Requirements and test methods |
| EN 179: 2008 | Building hardware. Emergency exit devices operated by a lever handle or push pad, for use on escape routes. Requirements and test methods |
| BRE. Smoke Shafts protecting Firefighting shafts: their performance and design. | |
| 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 EN 1634-1:2018 | Fire resistance and smoke control tests for door, shutter and openable window assemblies and elements of building hardware |
| BS 7346-8: 013 | Components for smoke control systems. Part 8 Code of practice for planning, design, installation, commissioning and maintenance |
| BS 9990:2015 | Non-automatic firefighting systems in buildings - 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 9251:2014 | Sprinkler systems for residential and domestic occupancies – Code of practice |
| BS 8210: 2012 | Guide to Building Maintenance Management |
| PAS 79-1:2020 | Fire risk assessment. Premises other than housing. Code of practice |
| PAS 79-2:2020 | Fire risk assessment. Housing. Code of practice |
| HTM 05-02 | Healthcare Technical Memorandum 05-02 Firecode Guidance in support of functional provisions (Fire safety in the design of healthcare premises) |

Executive Summary

Hughes and Associates Property Services Ltd conducted a non-invasive Type 1 fire risk assessment at Litcham Close on 19/12/2023. The fire risk assessment identifies fire risks, the occupants at risk from fire, and provides suitable precautionary measures to develop the fire safety of the premises.

Building Summary



Figure 1 – Litcham Close

The building is approximately ~9m in height to the highest occupied floor, sitting in the ADB bracket of '5-18m', requiring, 60-minute element of structure fire resistance.

Building Information

Litcham Close is a single building, forming purpose build flats with four floors. The property falls within the purpose group(s) of 'Residential (Dwellings)'. The property is not known to hold a listed building status.

Location Information

Litcham Close is located in Manchester, and has an approximate footprint of 10m x 50m.

Management and Operations

It was informed that MCC is the responsible person and that fire safety is managed by S4B.

Relevant persons for Litcham Close include: Residents.

The building is known to have been constructed in the mid 20th century. Currently, the property operates 24/7 and has approximately 50-100 occupants. 20 units are present at the property.

Building Features

The building is constructed of timber and brick with a timber framed, tiled pitched roof. There are four floors and a single stairwell. Bins are stored within the main building.

Safety and Evacuation

The building has an uncomplicated escape route, affording a single direction of escape. The building operates on a Stay Put evacuation policy. There is no alarm system in place within common areas. Flats contain a Grade D alarm system in an LD3 configuration.

Security

There is a security camera system, lockable front entrance doors in place. External fencing is also present at the property.

Recommended Actions

Please see Section '5 Risk Register' for risk register and actions.

The below list displays the general areas where it is recommended that action is taken within the stated timescale. The specifics of the issues and actions are displayed within Section '5 Risk Register'.

The overall risk to life from fire at these premises are estimated to be: Tolerable Risk

Table 1 - Action Summary

| Fire Safety Aspect | Timescale to Complete Actions |
|---|-------------------------------|
| Ensure that the electrical installation equipment is being regularly tested and serviced | 6 Months |
| Ensure the loft space has adequate fire separation between flats and stairs and other flats | 6 Months |
| Ensure all fire doors are regularly checked and remediated. 2x new flat entrance doors are required | 6 Months |

Review

It is the responsibility of the 'Responsible Person' RP (as identified by the RRO) to monitor the action points from a risk assessment. It is also their responsibility review the fire risk assessment. Reviews should take place if the RP suspect the FRA is no longer valid or significant changes have taken place that will affect the fire precautions within the building. Other reasons include, inter alia:

- Changes to work activities and equipment
- Changes to work staff numbers and presence of disabled or young persons
- Change of use or layout of the building
- Change in the storage of [fire] hazardous substances
- Failure of a fire precaution system, e.g. fire alarm
- After any real fire incident

It is recommended that the premises should have its risk assessment reviewed at least annually, or next in **November 2024**.

1 Introduction

1.1 Objective

Hughes and Associates Property Services Ltd were appointed to carry out a non-invasive Type 1 fire risk assessment (FRA) of Litcham close.

The assessment was undertaken in accordance with the general risk assessment principles set out in The Regulatory Reform (Fire Safety) Order 2005 in order to identify hazards that could contribute to injury of persons working or residing in or near the building. The fire risk assessment was conducted following the recommendations of the UK Government's fire risk assessment guidance suite and PAS 79.

1.2 Approach

The site visit was undertaken on 19/12/2023 by appointed competent person Stephen Brennan, TechIOSH, GFireE, AIFSM, DipFD, Fire Safety Assessor of Hughes and Associates Property Services Ltd.

An FRA is an assessment of the fire risks to occupants of a building and other people in the immediate vicinity of the building. This is to ensure that those people are safe from the risk of fire and its effects.

It considers the use of, the activities carried out within, and the likelihood that, a fire will start in a premise which could cause harm to the occupants of a building.

An FRA is carried out by a competent person and is reviewed annually thereafter by a responsible person. The responsible person can be an occupant on site, or an appointed individual with the appropriate skill set to undertake an FRA review.

The objectives of the FRA are:

- Identify the fire hazards;
- Reduce the risk of those hazards causing harm to as low as practicably possible;
- Determine which physical fire precautions and management arrangements are required to ensure the safety of the occupants in the building in the event of a fire.

The risk assessment also follows the methodology of PAS 79 and the nine-step method (Table 2).

The non-intrusive survey established any fire hazards, the people at risk from a fire, and any hindrances to the means of (and provisions used to facilitate) escape.

All observations from the survey were noted and given a hazard (anything that has the potential to cause harm) and risk (the chance of that harm occurring) rating to determine their severity, which are to be reported to the management of the building assessed.

Ultimately, the management will implement procedures to eradicate, mitigate, or control any identified risks. This could be proactive management practices or passive fire protection measures.

When considering existing buildings that were constructed prior to the production of modern codes, the following flow chart should be used in the assessment to formulate an effective action plan:

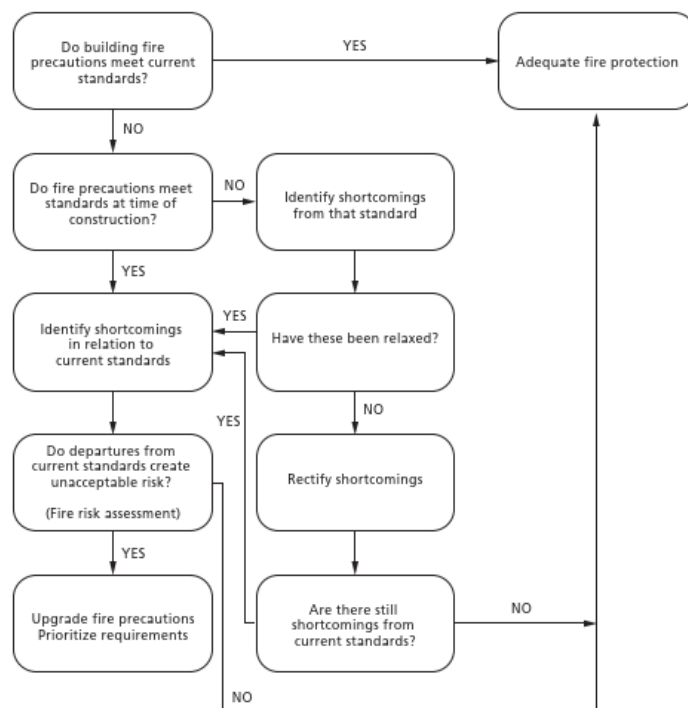


Figure 2 - PAS 79 - Existing Premises Action Plan

Table 2. PAS79 nine steps

| Steps | Descriptions |
|-------|---|
| 1 | Obtain information on the premises, the processes carried out on the premises and the people present, or likely to be present, on the premises. |
| 2 | Identify the fire hazards and means for their elimination or control. |
| 3 | Assess the likelihood of fire, at least in subjective terms. |
| 4 | Determine the fire protection measures currently in the premises. |
| 5 | Obtain relevant information about fire safety management. |
| 6 | Make an assessment of the likely consequences to people in the event of fire, at least in subjective terms. |
| 7 | Make an assessment of the fire risk. |
| 8 | Formulate and document an action plan, in which recommended actions are prioritized. |
| 9 | Define the date by which the fire risk assessment should be reviewed. |

1.3 Scope

The scope of this FRA is limited to the building described in the Building Summary Section.

Clause 9 of the Regulatory Reform (Fire Safety) Order 2005 requires “The responsible person must make a suitable and sufficient assessment of risks to which relevant persons are exposed for the purpose of identifying the general fire precautions he needs to take to comply with the requirements and prohibitions imposed on him by this order.”

This report considers life safety aspects associated with fire risks. Although some of these items will have some inherent property protection characteristics, property protection or business continuity protection will not be addressed specifically unless stated.

This report does not include detailed safety procedures or method statements to eliminate any identified risks. This work should be carried out by separate negotiation or contract with an approved third party.

All recommendations are based solely on the findings during the site-wide survey (within the areas that were available at the time of the FRA) and the information presented by the site managers met on the day.

- This fire risk assessment should be reviewed if any of the following occur:
- Any physical changes to the premises (structurally or internally);
- Significant changes to the occupancy/use of the premises;
- Substantial changes to furniture and fixings;
- Change of use, or increase in the storage of hazardous substances;
- The failure of fire precautions, e.g. fire-detection systems, and alarm systems;
- Significant changes to type and quantities and/or method of storage of goods;
- Changes to working hours;
- A significant increase in the number of people present; and
- The presence of people with some form of disability.

It should be noted that this list is not exhaustive and, as such, any modification that impacts the FRA should be addressed by the management.

1.4 Fire Phenomena

To fully understand the risks and hazards associated with fire, it is essential to have an understanding of what fire is and how fires can start. This knowledge forms the basis for how a fire risk assessment is conducted.

Fire is an exothermic chemical reaction between a combustible material and oxygen. To sustain this reaction, oxygen, heat, and a source of fuel must be present, which gives rise to the concept of the fire triangle (Figure 3).

Without one of the three components of the fire triangle, a fire is not sustainable, and the reaction will terminate. This is the foundation of all fire-fighting concepts and procedures.



Figure 3. The Fire Triangle



Figure 4. Fire caused by burning combustibles

The burning process (Figure 4) thermally decomposes the fuel source, producing volatile gases from the fuel surface. These volatiles mix with oxygen which results in combustion which generates heat. The additional heat produces more volatile gases and the process repeats.

1.5 Identifying Fire Hazards

Any sources of ignition, fuel, and oxygen (such as quantity and air flow) are fire hazards. Identifying these hazards and taking precautionary measures to remove or mitigate their severity help to reduce the likelihood of fire occurring. This is step one of the fire risk assessment.

It should be noted that the lists in this section are not exhaustive and, as such, any other sources of ignition, fuel, and oxygen found will be addressed in the Fire Risk Assessment.

1.5.1 Identifying Sources of Ignition

Sources of ignition are typically heat sources which could become hot enough to ignite a material found in the premises including:

- Naked flames, e.g. candles or gas or liquid-fuelled open-flame equipment;
- Hot processes, e.g. welding by contractors;
- Cooking equipment;
- Faulty or misused electrical equipment;
- Accidental ignition sources left within the refuse, e.g. batteries
- Lighting equipment, e.g. halogen lamps too close to stored products;
- Hot surfaces and obstruction of equipment ventilation, and
- Arson.

1.5.2 Identifying Sources of Fuel

Sources of fuel are anything that may burn easily and readily, and that there is sufficient quantity of, and that may spread to other fuel sources. Some common fuels for this type of facility are:

- Textiles such as sports clothing and equipment;
- Flammable-liquid-based products, such as paints, varnishes, thinners and adhesives;
- Flammable liquids and solvents, such as white spirit, methylated spirit, cooking oils and disposable cigarette lighters;
- Flammable chemicals, such as certain cleaning products, photocopier chemicals and dry cleaning that uses hydrocarbon solvents;
- Packaging materials, stationary, advertising material, decorations and display materials;
- Plastics and rubber, such as polyurethane foam-filled furniture;
- Waste products, particularly finely cut items such as shredded paper and wood shavings, off cuts, and dust;
- Flammable gases such as liquefied petroleum gas (LPG);
- Flammable liquids such as petrol for the motorcycles and scooters.
- Diesel for the outside generators;

Additionally, consideration should be given to the materials used to line walls and ceilings, the fixtures and fittings, and how they could facilitate the spread of fire.

1.5.3 Identifying Sources of Oxygen

The main source of oxygen is in the atmosphere, which, in an enclosed building is provided through the ventilation system. Typically, air is provided either naturally (by natural airflow through doors windows) or mechanically (such as air conditioning systems and air handling units). Usually there will be a combination of these systems which introduce and extract air into the building.

Other sources of oxygen include:

- Some chemicals (oxidising materials) which can provide a fire with additional oxygen and so help it burn. These chemicals should be identified on their container by the manufacturer or supplier who can advise as to their safe use and storage;

2 Building Details

2.1 Building Description

Table 3. Building Details

| Building Detail | Description |
|---------------------------------|--|
| Fire Risk Assessors Name | Stephen Brennan, TechIOSH, GIFireE, AIFSM, DipFD |
| Owner | MCC |
| Responsible person | MCC |
| Fire safety is managed by | S4B |
| Relevant persons and occupiers | Residents |
| Time of Construction | in the mid 20th century |
| Number of Buildings | 1 |
| Purpose Group(s) | 'Residential (Dwellings)' |
| Significant Adjacent Properties | N/A |
| Period of Operation | 24/7 |
| Number of Occupants | 50-100 occupants |
| Number of Units | 20 units are present at the property. |

Table 4. Additional Building Details

| Building Detail | Description |
|------------------------|---|
| Building Construction | timber and brick |
| Listed Building Status | The property is not known to hold a listed building status. |
| External Fencing | External fencing is also present at the property. |
| Security | a security camera system, lockable front entrance doors |
| Bin Stores | Bins are stored within the main building |
| Building Dimensions | Approximately 10m x 50m |
| Main Alarm System | There is no alarm system in place within common areas |

2.2 Relevant Persons

Unless noted otherwise, the risks identified in this report are thought to apply to all potential occupants (relevant persons) of the site. This includes office staff, residents, visitors and mobility-impaired persons, etc.

With reference to BS999:2008, Table 5 provides examples for the different categories of occupants. Table 6 defines fire growth rates and provides examples of conditions and their approximated fire growth rates. The risk profiles are defined in Table 7 and the assessed risk ratings for the occupants of Litcham Close are shown in Table 8. The overall risk ratings are categorised by combining both the occupancy characteristic and the fire growth rate.

Table 5. Occupancy Characteristics, taken from BS9999:2017

| Occupant Characteristics | Description | Examples |
|--------------------------|--|--|
| A | Occupants who are awake and familiar with the building | Offices and industrial premises |
| B | Occupants who are awake and unfamiliar with the building | Shops, exhibitions, museums, leisure centres, other assembly buildings, etc. |
| C | Occupants who are likely to be asleep: | |
| C _i | Long-term individual occupancy | Individual flats without 24h maintenance and management control on site |
| C _{ii} | Long-term managed occupancy | Serviced flats, halls of residence, sleeping areas or boarding schools |
| C _{iii} | Short-term occupancy | Hotels |

Table 6. Fire Growth Rate, taken from BS9999:2017

| Category | Fire Growth Rate | Examples | Fire Growth Parameter [KJ/s ³] |
|----------|------------------|---|--|
| 1 | Slow | Banking hall, limited combustible materials | 0.0029 |
| 2 | Medium | Stacked cardboard boxes, wooden pallets | 0.012 |
| 3 | Fast | Baled thermoplastic chips, stacked plastic products, baled clothing | 0.047 |
| 4 | Ultra-fast | Flammable liquids, expanded cellular plastics and foam | 0.188 |

Table 7. Risk Profiles, taken from BS9999:2017

| Occupancy Characteristics | Fire Growth Rate | Risk Profile |
|---|--|--|
| A (Occupants who are awake and familiar with the building) | 1 Slow 2 Medium 3 Fast 4 Ultra-fast | A1 A2 A3 A4 |
| B (Occupants who are awake and unfamiliar with the building) | 1 Slow 2 Medium 3 Fast 4 Ultra-fast | B1 B2 B3 B4 |
| C (Occupants who are likely to be asleep) | 1 Slow 2 Medium 3 Fast 4 Ultra-fast | Ci1, Cii1 or Ciii1 Ci2, Cii2 or Ciii2 Ci3, Cii3 or Ciii3 Ci4, Cii4 or Ciii4 |

Table 8. Litcham Close Occupant Risk Profiles

| Occupant Description | Occupancy Characteristic | Fire Growth Rate | Risk Profile |
|----------------------|-----------------------------------|------------------|--------------|
| Residents | Ci Long-term individual occupancy | Medium | Ci2 |

2.3 Documentation, Training, Drills and Records

Table 9. Documentation

| Documentation | Satisfactory (Yes/No/N/A) | Comments |
|--|------------------------------|--|
| Previous Fire Risk Assessment Outstanding action points Date of previous FRA? | Yes | |
| Fixed Main Electrical Installation Inspections in Place? | No | No evidence of fixed mains electrical installation checks were available. |
| Gas Checks in Place? | N/A | |
| Evacuation Procedure? | Yes | Stay Put |
| Are the timings of the drills estimated to be within the ASET? | N/A | |
| Fire System Maintenance? | Yes | |
| Fire Safety Defects Reporting Records? | Yes | |
| Fire warden information up to date? | N/A | |
| Is the building under any form of licence? | No | |
| Is there an RRO notice on the building? | No | |
| Is there a history of fires in the building? | No | None reported |
| Is the building fire engineered? Is there a fire strategy? | No | |
| Is there policy proving the adequate control of contractors? PTWs, RAMS, inductions? | Yes | |
| Competent person(s) appointed to assist in undertaking the preventive and protective measures (i.e. relevant general fire precautions)? | Yes | |
| Is there a suitable record of the fire safety arrangements? | Yes | |
| Are procedures in the event of fire appropriate and properly documented? | Yes | |
| Are there suitable arrangements for summoning the fire and rescue service? | Yes | |
| Are there suitable arrangements to meet the fire and rescue service on arrival and provide relevant information, including that relating to hazards to fire-fighters? | Yes | |
| Are there suitable arrangements for ensuring that the premises have been evacuated? | Yes | |
| Is there a suitable fire assembly point(s)? | Yes | |
| Are there adequate procedures for evacuation of any disabled people who are likely to be present? | Yes | compliant building layout |

| | | |
|---|-----|--|
| Persons nominated and trained to use fire extinguishing appliances? | N/A | |
| Persons nominated and trained to assist with evacuation, including evacuation of disabled people? | N/A | |
| Appropriate liaison with fire and rescue service (e.g. by fire and rescue service crews visiting for familiarization visits)? | Yes | |
| Routine in-house inspections of fire precautions? | Yes | |

Table 9.1 Training and Drills

| Documentation | Satisfactory (Yes/No/N/A) | Comments |
|---|---------------------------|---|
| Are all staff given adequate fire safety instruction and training on induction? | Yes | No site staff permanently based in building. All s4b staff report fire safety training has been carried out with some building specific training including evacuation procedures. |
| Are all staff given adequate periodic "refresher training" at suitable intervals? | N/A | |
| Does all staff training provide information, instruction or training on fire risks in the premises? | N/A | |
| Does all staff training provide information, instruction or training on The fire safety measures on the premises? | N/A | |
| Does all staff training provide information, instruction or training on Action in the event of fire? | N/A | |
| Does all staff training provide information, instruction or training on Action on hearing the fire alarm signal? | N/A | |
| Does all staff training provide information, instruction or training on Method of operation of manual call points? | N/A | |
| Does all staff training provide information, instruction or training on Location and use of fire extinguishers? | N/A | |
| Does all staff training provide information, instruction or training on Means for summoning the fire and rescue service? | N/A | |
| Does all staff training provide information, instruction or training on Identity of persons nominated to assist with evacuation? | N/A | |
| Does all staff training provide information, instruction or training on Identity of persons nominated to use fire extinguishing appliances? | N/A | |

| | | |
|--|-----|--|
| Are staff with special responsibilities given additional training? | N/A | |
| Are fire drills carried out at appropriate intervals? | N/A | |
| When the employees of another employer work in the premises: Is their employer given appropriate information? | Yes | |
| When the employees of another employer work in the premises: Is it ensured that the employees are provided with adequate instructions and information? | Yes | |

Table 9.2 Testing and Maintenance

| Documentation | Satisfactory (Yes/No/N/A) | Comments |
|--|---------------------------|--|
| Adequate maintenance of premises? | Yes | |
| Weekly testing and periodic servicing of fire detection and alarm system? | N/A | Residents responsible for their own alarms |
| Monthly and annual testing routines for emergency escape lighting? | Yes | |
| Annual maintenance of fire extinguishing appliances? | N/A | |
| Periodic inspection of external escape staircases and gangways? | N/A | |
| Six-monthly inspection and annual testing of rising mains? | N/A | |
| Weekly and monthly testing, six-monthly inspection and annual testing of fire-fighting lifts? | N/A | |
| Weekly testing and periodic inspection of sprinkler installations? | N/A | |
| Routine checks of final exit doors and/or security fastenings? | Yes | |
| Annual inspection and test of lightning protection system? | Yes | |
| Are suitable systems in place for reporting and subsequent restoration of safety measures that have fallen below standard? | Yes | |

3 Estimating Levels of Risk

3.1 Risk Profiling

The UK Health and Safety code, BS 8800, provides a means of assessing the level of risk in terms of severity by determining the likelihood of a fire occurring and any associated potential harm. This provides the management of the building with a hierarchical list of key areas to address for the purposes of enhancing the fire safety of the building.

A list of terms used in this report to describe the levels of harm and the likelihoods are summarised in Table 10.

Table 10. Risk Profile Term Definitions

| Term | Definition |
|-------------------|--|
| Slightly Harmful | Fire outbreak is unlikely to cause serious injury or death to occupants |
| Harmful | Fire outbreak could result in injury of one or more occupants though unlikely to cause multiple fatalities |
| Extremely Harmful | Significant potential for serious injury or death of one or more occupants |
| Highly Improbable | Hazard is unlikely to cause or impact outbreak of fire, or impede occupant fire egress |
| Improbable | Hazard may cause or impact fire outbreak or impede occupant fire egress |
| Probable | High potential for hazard to cause or impact fire outbreak, or impede occupant fire egress |

To quantify the levels of harm, Table 11 outlines the criteria for what shall constitute Slightly Harmful, Harmful, and Extremely Harmful.

Table 11. Levels of Harm

| Level of Harm | People | Assets | Environmental | Reputation |
|-------------------|------------------|------------------|-----------------|---------------------|
| Extremely Harmful | Fatalities | Major Damage | Long-Term Harm | Considerable Impact |
| Harmful | Major Injury | Localised Damage | Short-Term Harm | Localised |
| Slightly Harmful | Lost Time Injury | Minor Damage | Low-Impact | Limited Impact |

Tabulating these six terms provides a concise means of assessing the risk of any hazards found on site, ranging from “Trivial Risk” to “Intolerable Risk” (as shown in Table 12).

Table 12. PAS 79 Risk Estimation Table

| Likelihood of Harm from Fire | Severity of Harm | | |
|------------------------------|------------------|------------------|-------------------|
| | Slightly Harmful | Harmful | Extremely Harmful |
| Low | Trivial Risk | Tolerable Risk | Moderate Risk |
| Medium | Tolerable Risk | Moderate Risk | Substantial Risk |
| High | Moderate Risk | Substantial Risk | Intolerable Risk |

3.2 Required Action and Timescales

Table 13 gives priority ratings, actions, and appropriate timescales to resolve these risks. The management should then use this as a basis targeting and prioritising key areas of development for fire safety within the premises.

Table 13. Priority, Actions, and Timescales to Resolve Risks

| Priority | Action | Timescale |
|---|---|---|
| <div style="background-color: green; width: 20px; height: 20px; display: inline-block;"></div> Trivial or Tolerable Risk | 3 No major additional controls required. Consideration may need to be addressed to improve the current situation at low or no cost. | No action required for less harmful items. Items which are addressed should be resolved by next risk assessment or in the timespan specified. |
| <div style="background-color: yellow; width: 20px; height: 20px; display: inline-block;"></div> Moderate Risk | 2 Efforts must be made to reduce this risk within the associated timescale. Further assessments should be made for levels of moderate risk which are considered Extremely Harmful to determine the likelihood of harm occurring. | Items should be addressed and completed within the timespan specified. |
| <div style="background-color: red; width: 20px; height: 20px; display: inline-block;"></div> Substantial or Intolerable Risk | 1 The building is not safe and should be evacuated. Considerable measures will need to be implemented to significantly reduce the levels of risk. Occupants must not return until the issue(s) is/are resolved. | Should be addressed immediately and works should be completed within the short timespan specified. |

4 Observations and Overview of Assessment

4.1 Occupants

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|---------------------------|------------|----------|
| 4.1.1 | Sleeping occupants | Yes | |
| 4.1.2 | Disabled occupants | Yes | |
| 4.1.3 | Young persons (under 18s) | Yes | |
| 4.1.4 | Lone workers | Yes | |
| 4.1.5 | Other groups | No | |

4.2 Fire Hazards and Controls

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|---|------------|---|
| 4.2.1 | Have reasonable measures been taken to prevent fires of electrical origin? | No | No evidence of fixed mains electrical installation checks were available. |
| 4.2.2 | Have reasonable measures been taken to prevent fires because of smoking? | Yes | |
| 4.2.3 | Have security measures been implemented to address unauthorised access to the premises to mitigate the risk of arson? | Yes | a security camera system, lockable front entrance doors |
| 4.2.4 | Is the use of portable heaters avoided as far as is practicable? | Yes | None were witnessed |
| 4.2.5 | Is the heating system regularly inspected? | Yes | |
| 4.2.6 | Are there reasonable measures taken to avoid fires, as a result of cooking? | Yes | |
| 4.2.7 | Is the standard of housekeeping adequate? | Yes | |

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|---|------------|----------|
| 4.2.8 | Are the premises free from an accumulation of combustible waste (refuse)? | Yes | |
| 4.2.9 | Are there any other significant hazards that warrant consideration? | No | |

4.3 Means of Escape

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|------------------|
| 4.3.1 | Is the escape route layout deemed satisfactory and uncomplicated? | Yes | |
| 4.3.2 | Are there any dead-end situations within the premises? | Yes | Balconies |
| 4.3.3 | Are there alternative routes of escape sufficiently separated by either direction or space? | Yes | |
| 4.3.4 | Are travel distances deemed satisfactory? | Yes | |
| 4.3.5 | Are there any inner room situations? | No | |
| 4.3.6 | Is there a suitable coverage of emergency lighting within the premises? | Yes | |
| 4.3.7 | Is it considered that the premises are provided with reasonable arrangements for the means of escape for disabled persons? | Yes | Compliant layout |
| 4.3.8 | Are doors used for means of escape purposes provided with emergency locking devices that can be easily and immediately opened without the use of a key? | Yes | |
| 4.3.9 | Are doors on escape routes that are fitted with electronic locking systems fitted with automatic door release mechanisms that will disable in a fire? | Yes | |
| 4.3.10 | Are internal, exterior and final exit fire escape doors in good condition and regularly inspected with compliant hardware? Suitable fire assembly point? | Yes | |
| 4.3.11 | Are all gangways and escape routes free from obstruction or other fire risks? | Yes | |
| 4.3.12 | Does the escape signage appear to comply to BS 5499? | Yes | |
| 4.3.13 | Is there a reasonable standard of fire safety signs and notices? | Yes | |
| 4.3.14 | Have any PEEPS or GEEPS been produced for the premises? | Yes | |
| 4.3.15 | Are there any refuge points within the premises? If yes do these contain an EVS? | No | |

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|----------|
| 4.3.16 | Are there external stairwells in place? If yes, are these in a good condition and free from trip/slip hazards? | N/A | |

4.4 Measures to Limit Fire Spread/Development

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|---|
| 4.4.1 | Are there reasonable limitations of lining materials that may promote fire? | Yes | |
| 4.4.2 | Are the buildings' fire doors in an acceptable condition? | No | All fire doors to be regularly checked and remediated |
| 4.4.3 | Does the existing fire stopping to service ducts and fire compartments appear to be satisfactory for preventing the spread of fire, heat or smoke? | Yes | |
| 4.4.4 | Are there fire dampers in place where required? If yes, is there any maintenance documentation in place? | N/A | |
| 4.4.5 | Are self-closing devices provided on fire doors where required, if so are they in working order? | Yes | Flat doors not checked internally |
| 4.4.6 | External fire spread – Is the building in close proximity to others? | No | N/A |
| 4.4.7 | Is there a lighting protection system? If yes, does it appear to be in a good condition and undamaged? | Yes | |

4.5 Firefighting Systems

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|---|------------|---------------------------|
| 4.5.1 | Are the existing smoke clearance provisions satisfactory? | Yes | Permanent vents in stairs |
| 4.5.2 | Is there sufficient number and type of extinguishers? | Yes | |
| 4.5.3 | Are extinguishers in date and have wall mounted signage? | N/A | |
| 4.5.4 | Are there fire blankets in kitchens? Are these adequately placed? | N/A | |
| 4.5.5 | Are there hose reels or other systems, appropriate and tested? | N/A | |

4.6 Fire Detection and Alarm

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|-----------------------------|
| 4.6.1 | Are the capabilities of the installed fire alarm and detection system considered satisfactory? | Yes | Domestic only, not verified |
| 4.6.2 | Is the alarm automatic detection and warning? | Yes | |
| 4.6.3 | What is the current fire alarm category (L1, LD3, P1, M etc.) | | |

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|----------|
| 4.6.4 | What is the fire alarm grade? (A, B, C, D etc.) | | |
| 4.6.5 | Is the extent and coverage of alarm system deemed satisfactory? | Yes | |
| 4.6.6 | Have any detector faults been noted? | No | |
| 4.6.7 | Is the building fire alarm connected to an Alarm Receiving Centre (ARC)? | No | |

4.7 Fire Precaution Records

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|--|
| 4.7.1 | Are test and maintenance records available to confirm that the fire alarm and detection system is in full working order? | No | Assumed compliant, residents to be made aware of fire alarm responsibilities |
| 4.7.2 | Emergency Plan: Has an Appropriate Emergency Plan been prepared for the premises? | Yes | |
| 4.7.3 | Is the evacuation strategy simultaneous, defend in place, phased? | - | Stay Put |
| 4.7.4 | Is there suitable contact with the fire service are fire brigade wallet and keys available? | Yes | |

4.8 Fire Service Facilities

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|----------|
| 4.8.1 | Are the facilities for the fire service adequate? Is the access for fire appliances to the workplace/premises satisfactory? | Yes | |
| 4.8.2 | Is the access for fire appliances to the workplace/premises satisfactory? | Yes | |
| 4.8.3 | Is there suitable supply of firefighting water? | Yes | |
| 4.8.4 | Are there firefighting shaft(s) and dry riser(s)? If so, is there any maintenance documentation in place displaying that the dry riser(s) are fit for purpose? | N/A | |
| 4.8.5 | Is there a firefighting lift? If so is there any maintenance documentation in place displaying that the lift is fit for purpose? | N/A | |
| 4.8.6 | Are other switches and control devices like AOV, mechanical ventilation, fuel shut off in place? If yes, is there maintenance documentation for these systems? | N/A | |

4.9 External Walls

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|---|------------|---------------------|
| 4.9.1 | What is the building's external wall construction? | - | Brick and boarding |
| 4.9.2 | Has the building been subject to an EWS1 survey? | No | |
| 4.9.3 | If EWS has been carried out, state the result of this survey, if no, is one required? | No | Building is 4 story |
| 4.9.4 | Are there any clear non-compliances / damage to the external wall system? | No | |

4.10 Other

| Line Item | Observation | Yes/No/N/A | Comments |
|-----------|--|------------|----------|
| 4.10.1 | Is the site COMAH or DSEAR 2002? | No | |
| 4.10.2 | Were there any unchecked areas in the building due to access restriction? | Yes | Lofts |
| 4.10.3 | Do the fire precautions in place meet the standards of the time of construction? | Yes | |

5 Risk Register

RISK 1 DESCRIPTION

There is no evidence of fixed electrical installation testing

RISK CATEGORY

4.2 Fire Hazards and Controls

REMEDIAL(S) DESCRIPTION

Ensure that the electrical installation equipment is being regularly tested and serviced

RISK RATING

Tolerable

REMEDIAL(S) TIMESCALE

6 Months

RELEVANT STANDARDS / LEGISLATION

LEGAL: Regulatory Reform (Fire Safety) Order 2005 - 17.Maintenance, LEGAL: Regulatory Reform (Fire Safety) Order 2005 - 12.Elimination or reduction of risks from dangerous substances

PHOTOGRAPHIC EVIDENCE



RISK 2 DESCRIPTION

There was no access to the lofts to check for adequate fire separation

RISK CATEGORY

4.4 Measures to Limit Fire Spread/Development

REMEDIAL(S) DESCRIPTION

Ensure the loft space has adequate fire separation between flats and stairs and other flats

RISK RATING

Tolerable

REMEDIAL(S) TIMESCALE

6 Months

RELEVANT STANDARDS / LEGISLATION

LEGAL: Regulatory Reform (Fire Safety) Order 2005 - 17.Maintenance, LEGAL: Regulatory Reform (Fire Safety) Order 2005 - 14.Emergency routes and exits

PHOTOGRAPHIC EVIDENCE



RISK 3 DESCRIPTION

Fire doors to flats on the single direction of escape are not FD30s in 2 cases. Communal doors showing some defects

RISK CATEGORY

4.4 Measures to Limit Fire Spread/Development

REMEDIAL(S) DESCRIPTION

Ensure all fire doors are regularly checked and remediated. 2x new flat entrance doors are required

RISK RATING

Moderate

REMEDIAL(S) TIMESCALE

6 Months

RELEVANT STANDARDS / LEGISLATION

LEGAL: Regulatory Reform (Fire Safety) Order 2005 - 17.Maintenance, LEGAL: Regulatory Reform (Fire Safety) Order 2005 - 14.Emergency routes and exits

PHOTOGRAPHIC EVIDENCE



6 Risk Rating Summary

Taking into account the fire prevention measures observed at the time of this risk assessment, it is considered that the risk of fire occurring is;

The likelihood of a fire occurring has been assessed to be **Low**.

The consequences for life safety in the event of fire are estimated to be **Slightly harmful**.

The overall risk to life from fire at these premises are estimated to be **Tolerable Risk**.

The purpose of this section is to place fire risk into context. The ratings above are subjective and are for guidance purposes only. The hazards and deficiencies identified in this report should be addressed by implementing all the recommendations contained in the following section.

Using the estimation of risk levels in Section 3, and the observations in Section 4, and the Risk Rating Summary in section 5; the number of risks (categorised by their priority rating) can be created.

The risk register is shown in Section 5 and shows observations from the site visit. Providing photographic evidence from the survey of the risks and offer proposed risk reduction methods for management to help improve/resolve these issues.

END OF REPORT