

REGULATORY REFORM (FIRE SAFETY) ORDER 2005 (As amended)
FIRE RISK ASSESSMENT



Tavy House

Responsible person (e.g. Employer) or person having control of the premises:

Plymouth Community Homes

Block Code:

BK07460A

Address of premises:

Tavy House, 194-372 Duke Street, Plymouth,
PL1 4HL.

Person(s) consulted:
(If applicable)

No-one consulted during this assessment.

Assessor:

Paul Bray GFireE – Fire Safety Manager

Report validated by:

Nigel Hill GFireE

Date of fire risk assessment:

12th May 2022 (Revised 10/02/2023 – Paul
Bray)

Date of previous fire risk assessment:

12th May 2021

Suggested date for review:

13th May 2023

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

INTRODUCTION

This Fire Risk Assessment report addresses the requirement to carry out suitable and sufficient risk assessments under the requirements of Regulation 9(1) of the Regulatory Reform (Fire Safety) Order 2005 (as amended), hereinafter referred to as the "Fire Safety Order".

Scope of the Risk Assessment

The report represents Plymouth Community Homes' (PCH) understanding for the current building designs and use, the fire strategy and proposed evacuation procedures. It is to provide an assessment of the risk to life from fire and does not address building or property protection or business continuity. The report is not an assurance against risk and is based on the best judgement of the assessor involved. The assessment may rely on information given by others outside of PCH and no liability is accepted for the accuracy of such information.

The Risk Assessment Procedure

This report considers the following aspects of fire safety and also reflects the fire safety standards identified during the assessment in each area of the building being inspected:

- Sources of Ignition / Fuel
- Persons at Risk
- Fire Detection and Warning Systems
- Means of Escape
- Provision of Fire Fighting Equipment
- Emergency Evacuation Plans and Training
- Maintenance and Testing of Fire Safety Equipment
- Signage
- Plant Emergency Procedures
- Building Plans & Fire Provisions

Limitations of the Risk Assessment

This report has been written following a visual non-invasive inspection only, and if any problems, irregularities or defects are suspected, then they are noted where the assessor judges them to be urgent, significant or helpful.

The inspections undertaken in order to compile this report do not include any areas which were concealed or closed in behind finished surfaces, such as flooring, walls or ceilings, or which required the moving of anything which impeded access or limited visibility, such as floor coverings, furniture, appliances, personal property, vehicles, vegetation, debris or soil.

Recommendations

The recommendations made by the assessor are outlined in the Action Plan. This sets out the measures that are considered necessary to satisfy the requirements of the Fire Safety Order and to protect people from fire. In certain instances, the assessor may have made recommendations for further inspection in the report, however as a general guidance it is recommended that the 'no access' areas are inspected as soon as possible. The assessments, observations and recommendations made are only relevant to the conditions identified at the time of this assessment.

Reviewing the Risk Assessment

The Fire Safety Order requires that this risk assessment be kept under review. A date for routine review is given on the front of this report but should any of the buildings (or their operations) change in any

way, there be any reason to suspect it is no longer valid or if a major fire occurs the risk assessments should be updated accordingly.

External Wall Construction

Consideration has been given to external wall construction within this fire risk assessment.

Where necessary and if there is any doubt over the integrity of the external wall construction a detailed (even intrusive and laboratory) Fire Risk Appraisal Assessment (FRAA) will be completed by specialists.

It is noted the installation of an External Wall Insulation (EWI) system (to meet Euroclass A2-s1,d0 reaction to fire classification in accordance with EN 13501-1 : 2010) has been completed.

To confirm the fire rating of the external wall construction of this building, an EWS1 report has been commissioned by Plymouth Community Homes (PCH) from qualified and competent specialist Bailey Partnerships, who were responsible for overseeing the removal of the Aluminium Composite Material (ACM) wall system and the installation of the replacement EWI.

GENERAL INFORMATION

1. THE PREMISES

- 1.1 Number of floors at ground level and above: 16 (approximately 48 metres in height)
- Number of floors entirely below ground level: None (below main entrance to building)
- Floors on which car parking is provided: 1 (known as the Undercroft, has secure garage units)
- 1.2 Number of flats: 90 flats in total, with 6 flats per upper floor.
- 1.3 Brief details of construction and approximate age of building:
C 1964, Concrete floors and stairs. Concrete flat roof with rubber weatherproof covering. Brick walls and EWI. A multi storey general purpose blocks of flats of 17 storeys and roof space comprising of lower ground floor level, ground floor and fifteen upper floors.
- 1.4 Occupancy:
Purpose-built, multi storey block of flats.

2. THE OCCUPANTS

- 2.1 Approximate maximum number of employees at any one time:
1 static ranger onsite but periodic visits by Housing Officers, mobile Rangers or PCH operatives.
1 Tower Liaison Officer (serves 3 x Mount Wise high-rise towers)
Repair staff
- 2.2 Approximate maximum number of residents and visitors at any one time:
90 flats, a mix of bedsit, one and two bed flats, equating to approximately 300 residents. (30 of each type)
Visitors assumed to be relatively low numbers of non-block residing persons, at any one time, compatible with the use.

3. OCCUPANTS ESPECIALLY AT RISK FROM FIRE

- 3.1 Sleeping occupants: 300 occupants of residential flats (see section 5 below)
- 3.2 Occupants in remote areas and lone workers: Visitors, lone workers & residents.

3.3 Others:

Occasional contractors.

4. FIRE LOSS EXPERIENCE

A log of anti-social behaviour is kept by the Housing Officer. There was no evidence of previous fires in the communal parts and fire statistics (which report fire brigade incidents since 2011) report 8 fire related incidents at the property.

- 13/01/2020 Incident No. VV032547-13012020 strong smell of burning coming from a flat on the 14th floor of the building. A small fire on an oven hob was located and successfully extinguished by the fire crew.
- 10/01/2019 Incident No. VV030673-10012019 the fire was confined to the kitchen of the flat on floor 13 and was extinguished by crews
- 21/12/2018 Incident No. VV029167-21122018 A fire occurred at the above premises – no details available.
- 10/10/2018 Incident No. VV022132-10102018 crews confirmed there to be a fire within a first floor flat involving a chip pan out on arrival of the fire service.
- 20/10/2015 20 15/13274 OOA
- 15/04/2014 14/00911 small fire kitchen OOA
- 22/04/2013 13/01462 fire in oven 2BA
- 09/02/2013 12/21457 small fire in kitchen

5. OTHER RELEVANT INFORMATION

Description of building

The lower ground floor level contains resident's garages, workshop, old generator room (now used for storage), main electrical intake room, 2 bin stores, pump room, dry riser inlet and final exit door from the staircase enclosure.

The ground floor has two entrances with a lobby approach to the central lift lobby. Both entrance lobbies were recently refurbished, with changes to the layout of the rangers' office and new entrance and lobby doors installed. A hatch in the Rangers office has been fitted with a fire rated shutter, linked to a smoke detector in the office. The detector is linked to the fire alarm panel and the Alarm Receiving Centre. The shutter does not have a smoke seal. Consideration has been given to install a smoke curtain, but it is deemed the absence of a smoke seal is this location does not adversely affect the means of escape, so no further action at this time.

Access to the resident's stores and laundries A and B are from this central lift lobby area along with gas and electrical riser cupboards. The ranger's office/ store and the recycling store is accessed within the outer lobbies.

The staircase is accessed by means of a fire resisting door leading onto a corridor and then by means of a second 60-minute fire resisting door onto the staircase enclosure. Two fireman's lifts serve the upper floors with each lift serving either odd or even floor levels.

Floors 1 to 15 contain 90 flats in total with 6 flats per floor. Single staircase to all levels. Each floor is approached from the staircase by means of a lobby. The fire resisting door directly off the staircase being a metal 60-minute fire resisting, self-closing door, this in turns leads to a small corridor and then by means of a 30-minute fire-resisting self-closing door onto the lift lobby on each floor.

Each floor has access to a rubbish chute accessed by means of a 30-minute fire resisting, self-closing door from lift lobby, waste materials are placed in the chute by opening a metal chute door. Two separate rubbish chutes are provided one for odd numbered floors and one for even numbered floors, alternating either side of the staircase enclosure.

The lift motor room is accessed by means of a secure hatch on floor 15. It is housed in a concrete block structure on the flat roof. A door from this structure leads to the flat roof. The roof has vents for gas and air circulation. It is worth noting that following removal of a four-sided roof added as part of improvements around 1999-2000 in 2020, works to provide a Building Maintenance Unit (BMU) and roof repairs have been completed in 2021.

The maximum occupancy number stated in 2.2 and 3.1 has been estimated based on the size of the flats. The expectation is that the maximum occupancy will be around 300 persons, excluding visitors, in the residential areas of the building at any one time.

This is a 'general needs' block, and there may be occupants with varying degrees of physical disability in line with the general population, a vulnerable person's list is maintained and kept in the secure fire and rescue service 'Premises Information Box' (PIB) on the ground floor main entrance lobby.

Height of building approximately 48m.

The installation Euroclass A2-s1,d0 EWI system has been completed.

Means of escape principles for this construction

Originally Built To 'Cp3 Chapter Iv Part 1' Which provided recommendations for fire precautions in blocks of flats over 80Ft (Approx. 24M) in height. The 1962 Code of Practice allowed single staircase blocks of flats using the 'Stay-Put Principle', provided that the staircase and lobby were ventilated amongst other constructional standards.

Where a single stairway was permitted, access to it was either from a balcony or ventilated lobby and; every dwelling had to open into a corridor and either be no more than 15Ft (Approx. 4.5M) from the door to the main stairway (or to a smoke-stop door across the corridor) or not more than 15ft from a permanently ventilated lobby and be not more than 15ft from a smoke-stop door separating the lobby from the corridor leading to the stairway.

Currently there are 6 flats per floor level, which exit into the lift lobby. From this lobby there is a fire exit which is a fire protected lobby to the main staircase. Originally both the staircase lobby and the staircase were permanently ventilated to fresh air via an open lattice blockwork wall.

The staircase lobby ventilation had been covered by means of a fire resisting timber and plasterboard construction to protect the lobby from those dwellings adjacent to aluminium composite panels, which has now been replaced.

The boarding has now been completely removed, reinstating the fully ventilated staircase throughout the height of the building.

The distance of travel from the individual flats to the entrance of the staircase lobby is as follows;

Flat 1 – 1.0 Metres, Flat 2 – 1.5 Metres, Flat 3 – 2.7 Metres, Flat 4 – 5.2 Metres, Flat 5 – 4.9 Metres, Flat 6 - 4.5 Metres.

The COP advised that this distance should be limited to 4.5 Metres – bearing this in mind, four of the six flats are within specification and two are just outside of the required distance. The greatest distance 5.2 Metres being 0.7 Metres over the requirement.

The ventilation provided in the main Lift/Flat lobby have been provided for means of air circulation and not originally provided for smoke extraction. The current standards for single staircase blocks of flats requires that the main lobby /corridor or staircase lobby is automatically ventilated by means of an automatically opening vent with the free area of the vent being at least 1.5M². To incorporate this standard into these buildings would not be practical or feasible.

Conclusion: The ventilation to the main Lobbies was not provided for smoke extraction and although two flats per floor are technically outside of the 4.5 M travel distance the existing ventilation arrangements are reasonable taking into account that the premises have been retrospectively fitted with a BS 9521 sprinkler system, covering all parts of the building other than the undercroft and the electrical intake room on the lower ground floor.

6. RELEVANT FIRE SAFETY LEGISLATION

6.1 The following fire safety legislation applies to these premises:

The Regulatory Reform (Fire Safety) Order 2005 (as amended)

6.2 The above legislation is enforced by:

Devon & Somerset Fire and Rescue Authority.

6.3 Other legislation that makes significant requirements for fire precautions in these premises [other than the Building Regulations 2010 (as amended)]:

Housing Act 2004.

6.4 The other legislation referred to above is enforced by:

Local authority.

6.5 Is there an alterations notice in force?

Yes ☐

No ☒

Relevant information and deficiencies observed:

None.

FIRE HAZARDS AND THEIR ELIMINATION OR CONTROL

7. ELECTRICAL SOURCES OF IGNITION

7.1 Are reasonable measures taken to prevent fires of electrical origin? Yes ☒ No ☐

7.2 More specifically:

a) Are fixed installations periodically inspected and tested? N/A ☐ Yes ☒ No ☐

b) Is portable appliance testing carried out? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- It is PCH's policy to subject the installations serving the common parts of the premises to periodic inspection and test every five years. The last five yearly test was carried out 22/06/2022 (completed after the date of the FRA inspection).
- No portable appliances located within the common areas but portable equipment in the Ranger's office is listed on an inventory and is subject to annual testing. The last test November 2021

8. SMOKING

8.1 Are reasonable measures taken to prevent fires as a result of smoking? Yes ☒ No ☐

8.2 More specifically:

a) Is smoking prohibited in appropriate areas? N/A ☐ Yes ☒ No ☐

b) Are there suitable arrangements for those who wish to smoke? N/A ☐ Yes ☒ No ☐

c) Did the smoking policy appear to be observed at time of inspection? N/A ☐ Yes ☒ No ☐

d) Are "No smoking" signs provided in the common areas? Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- No evidence of smoking within the common areas at the time of this assessment.
- Residents and visitors are reminded of the no smoking policy, and there are signs posted throughout the common areas including lifts.
- Smoking is not considered in relation to the individual flats and it is expected that some residents will smoke in their flats.
- No excessive evidence of smoking around the exterior curtilage of the building.

9. ARSON

9.1 Does basic security against arson by outsiders appear reasonable¹⁾? Yes ☒ No ☐

9.2 Is there an absence of unnecessary fire load in close proximity to the premises or available for ignition by outsiders? Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- The main entrance is secured by an electromagnetic lock with key access, a fob access panel and a supplementary intercom entry control system operated from within the individual flats.
- Paladin bins stored in integral refuse stores on lower ground floor level.
- Recycling bins located in internal bin store area, with secure access by persons with fob entry to building.
- Waste is removed from the areas weekly.
- There was no external fire loading noted at the time of this assessment.
- All non-resident areas are key locked.

10. PORTABLE HEATERS AND HEATING AND VENTILATION INSTALLATIONS

10.1 Is there satisfactory control over the use of portable heaters? N/A ☐ Yes ☒ No ☐

10.2 Are fixed heating and ventilation installations subject to regular maintenance? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- A 'C' duct providing air for 'gas hot air heating' passes through the building from the Recycling area, tenant's stores and the ranger's storage area. This is protected at each floor level by means of a 2 hour fire resisting access panel within the flat bathroom areas. All panels were inspected and confirmed as being in place in June 2017 and are subject to regular inspections during maintenance and when flats are re-let.
- There is no heating provided within the common areas.
- Ranger's office has electric heating. Other portable heaters are not used.
- The heating systems for the individual flats have not been considered during this assessment, as the flats are out of the scope of Fire Safety Order. (Generally warm air heating is provided within flats and PCH residents have an annual service and gas safety check.)

¹⁾ Reasonable only in the context of this fire risk assessment. If specific advice on security (including security against arson) is required, this should be obtained from a security specialist.

11. COOKING

- 11.1 Are reasonable measures taken to prevent fires as a result of cooking? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- No cooking facilities or ductwork within the communal areas. Ranger's office is provided with kettles, microwave and toaster to reheat food and make hot drinks. Firefighting equipment is provided in this area.
- Cooking within individual flats has not been considered

12. LIGHTNING

- 12.1 Does the building have a lightning protection system? Yes ☒ No ☐

Relevant information and deficiencies observed:

Lightning protection system inspected and tested South West Lightning Protection, last test date 24/02/2022

13. HOUSEKEEPING

- 13.1 Is the overall standard of housekeeping adequate? Yes ☒ No ☐

13.2 More specifically:

- a) Do combustible materials appear to be separated from ignition sources? Yes ☒ No ☐
- b) Is unnecessary accumulation or inappropriate storage of combustible materials or waste avoided? Yes ☒ No ☐
- c) Are gas and electricity intake/meter cupboards adequately secured and kept clear of combustible materials? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- Combustible waste from individual flats is disposed of by means of bin chutes serving each floor. These leads to bin rooms located on the lower ground floor. The industrial bins in the bin stores are emptied regularly. Any bulky combustible waste is disposed of by residents directly into the bins provided on the ground floor.
- There are 2 x large resident's storerooms (sheds) on the ground floor level. Storage is kept within individual wired cages. Each cage may have a range of combustible materials stored. Tenants are not allowed to store combustible liquids or gas cylinders in this area. A fire resisting door protects the lift lobby area from a fire in the resident's storage area.
- A good standard of housekeeping was noted at the time of the assessment. Communal areas are checked regularly by staff, and they have instructions to remove or arrange for immediate removal any combustible or unauthorised items.
- There is an onsite ranger who maintains the standard of housekeeping and follows a PCH approved cleaning programme.
- A 'managed use' approach has been introduced for communal areas, which allows low level non-slip door mats outside flats in the lobby.
- This policy is communicated to all residents.
- An inspection of the electrical intake and gas rising main cupboards was carried out during the assessment, which confirmed that all of the electrical and gas cupboards were clear of combustible materials and kept in a locked position.

14. HAZARDS INTRODUCED BY OUTSIDE CONTRACTORS AND BUILDING WORKS

- 14.1 Is there satisfactory control over works carried out in the building by contractors? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- All works in common areas are supervised by means of work permits and in-house maintenance teams.
- Works within resident's flats are generally by approved contractors apart from leasehold flats and self-sourced minor works contractors.
- Residents and leaseholders have been reminded that all works by external contractors must not compromise fire safety, in particular, holes drilled in walls to feed cables for broadband, TV and smart meter cables must be filled with non-combustible (intumescent) materials.

15. DANGEROUS SUBSTANCES²⁾

- 15.1 Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises³⁾?

N/A ☒ Yes ☐ No ☐

Relevant information and deficiencies observed:

- No dangerous substances are used or stored in the areas covered by this risk assessment.

16. OTHER SIGNIFICANT FIRE HAZARDS THAT WARRANT CONSIDERATION

- 16.1 Hazards:

None.

Relevant information and deficiencies observed:

None.

²⁾ 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.

³⁾ Small quantities with negligible impact on the appropriate fire precautions need not be taken into account.

FIRE PROTECTION MEASURES

17. MEANS OF ESCAPE

- 17.1 Is the design and maintenance of the means of escape considered adequate? Yes ☐ No ☒
- 17.2 More specifically:
- a) Are there reasonable distances of travel:
- where there is escape in a single direction? N/A ☐ Yes ☒ No ☐
 - where there are alternative means of escape? N/A ☐ Yes ☒ No ☐
- b) Is there adequate provision of exits? N/A ☐ Yes ☒ No ☐
- c) Do fire exits open in the direction of escape, where necessary? N/A ☐ Yes ☒ No ☐
- d) Are the arrangements provided for securing exits satisfactory? N/A ☐ Yes ☒ No ☐
- e) Is the fire-resisting construction (including any glazing) protecting escape routes and staircases of a suitable standard and maintained in sound condition? N/A ☐ Yes ☒ No ☐
- f) Is the fire resistance of doors to staircases and the common areas considered adequate, and are the doors maintained in sound condition? N/A ☐ Yes ☒ No ☐
- g) Are suitable self-closing devices fitted to doors in the common areas? N/A ☐ Yes ☒ No ☐
- h) Is the fire resistance of doors to meter cupboards/storerooms/plant rooms in the common areas considered adequate, and are they adequately secured and/or fitted with suitable self-closing devices? N/A ☐ Yes ☒ No ☐
- i) Is the fire resistance of flat entrance doors considered adequate, and are doors maintained in sound condition? N/A ☐ Yes ☒ No ☐
- j) Are suitable self-closing devices fitted to flat entrance doors and, where fitted, maintained in good working order? N/A ☒ Yes ☐ No ☐

- | | |
|--|--|
| k) Is all glazing to flat entrance doors appropriately fire rated? | N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> |
| l) Are fan lights above flat entrance doors appropriately fire rated? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| m) Are side panels to flat entrance doors appropriately fire rated? | N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> |
| n) Are letterboxes satisfactory?
(State only if missing, damaged or uPVC) | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| o) Are there adequate smoke control provisions to protect the common escape routes, where necessary? | N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| p) Are all escape routes clear of obstructions? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| q) Are all fire exits easily and immediately openable? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| r) Is it considered that the premises are provided with reasonable arrangements for means of escape for disabled people? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Relevant information (including description of arrangements and deficiencies observed):

- This is a purpose built block of flats, the design of which has been based on the principle of the 'Stay-Put' policy, as such the occupants of the flats, other than those in which a fire occurs, should be able to remain in their flats in relative safety unless their flat is affected by fire or smoke or they feel it's unsafe to remain, or are directed to evacuate by the Fire and Rescue Service.
- All flat entrance doors are FD60S doors. All doors protecting the single staircase are metal FD60S. All ancillary fire resisting doors are FD30S.
- Lobby protection to staircase with FD30S fire resisting doors from the lift lobby then metal FD60S fire resisting doors onto single staircase.
- Main entrance doors are secure and held closed on electromagnets, these failsafe to open on power failure. Final exit door from the single staircase at lower ground floor level is openable using a thumb turn lock.
- No long corridors
- Concrete floors are provided throughout with non-slip flooring within the lobbies and the main entrance. Some flats have low non-slip mats at thresholds, which are in accordance with PCH management of communal areas policy.
- The escape route from the lower ground exit, accessed from the protected staircase, leads away from the building directly towards the adjacent road. The exit via the main entrance leads to a public road, the secondary access/ egress on ground floor level leads out above the lower ground car park and then to the road along the side of the building. All exits lead to a place of ultimate safety.
- The protected staircase is permanently ventilated to fresh air via an open lattice blockwork wall open at all floor levels. Environmental mechanical venting is provided to the lift lobbies on each floor (fitted with intumescent grilles)

Flat Entrance Doors



- All PCH FD60S flat entrance doors were fitted with a self-closing device, intumescent strips and cold smoke seals when installed and are subject to a visual inspection during the annual gas safety check and when repairs operatives attend the dwelling. Leasehold properties are not subjected to this annual inspection, for these properties PCH's leasehold team contact the leaseholders and follow an approved process for managing the responses and dealing with non-cooperation.
- All flats were fitted with similar FD60S rated flat entrance doors.
- All of the flats had an appropriately fire rated and certificated transom above the entrance door. There were no side panels fitted to any of the flat entrance doors. There were no glazing panels fitted to any of the flat entrance doors during this assessment.
- Flats numbered 204, 230, 280, 288, 318, 350 and 366 are leasehold properties and require an inspection to confirm if a working self-closing device is fitted.
- All flat entrance doors are deemed to provide, at least, the minimum requirement of 30 minutes fire resistance.

Communal Fire Doors

These doors were inspected by a BMTRADA certificated inspector in July-August 2021, works identified from this survey were completed as part of rolling risk based programme. This included the replacing of all doors leading from the lift lobbies to the escape corridors on every habitable floor

Additional actions identified by this fire risk assessment.

Communal door from stair on floor 4 has damage to cold smoke seal, this should be repaired



The smoke seals on the laundry doors on the ground floor are damaged and should be repaired.



18. MEASURES TO LIMIT FIRE SPREAD AND DEVELOPMENT

18.1 Is it considered that there is/are:

a) Adequate levels of compartmentation between floors and between flats and the common escape routes?

Yes ☒ No ☐

b) Reasonable limitation of linings to escape routes that might promote fire spread?

Yes ☒ No ☐

N/A ☐ Yes ☒ No ☐

- c) As far as can reasonably be ascertained, reasonable fire separation within any roof space?
- d) Adequately fire protected service risers and/or ducts in common areas that will restrict the spread of fire and smoke? N/A ☐ Yes ☒ No ☐
- 18.2 As far as can reasonably be ascertained, are fire dampers provided as necessary to protect critical means of escape against passage of fire, smoke and products of combustion in the early stages of a fire^{4), 5)} N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

This is a purpose-built block of flats, and it is understood that the design principles embodied in the building legislation/regulations applicable at the time of construction included adequate compartmentation.

- Compartment walls and floors are provided at each level.
- Risers are half hour fire protected at each floor level along with FD30S fire resisting doors opening onto the lift lobbies.
- Electrical meters and associated equipment is contained in riser cupboards within each lift lobby. These have 30 minutes fire resistance and are fitted with FD30S fire resisting self-closing doors.
- All riser cupboards have recently had remedial works undertaken to remove foam filler used to fill gaps caused by cables or other penetrations in separating walls, ceilings or floors; with the foam being replaced with a fire rated stopping material.
- A 'C' duct providing air for gas hot air heating passes through the building from the Recycling area, tenants stores and the Ranger's storage area. This is protected at each floor level by means of a 2-hour fire resisting access panel within the flat bathroom areas. All panels were inspected and confirmed as being in place in June 2017.
- Concrete flat roof. Residents do not have any access to this area. Access is by means of a secure hatch in the fifteenth-floor lift lobby and via lift motor room. The lift motor room is housed in a concrete block structure on the flat roof. A door from this structure leads to the flat roof. There were no visible defects or concerns over the compartmentation in this area.
- 4 'C' Ducts run through all 15 floors and provide airflow to the flats heating installations. C-ducts do not have dampers but are located in a 120 minute protected concrete shaft and are separated from the flats by 120 minute fire resistant access panels. Intake air is located on the ground floor and terminates at roof level. A 'C' duct runs from ground floor lift lobby and via grilles in the wall provide air exchange from ground floor to roof, creating a negative pressure while operating. The grilles are protected at each lobby floor with intumescent grilles, designed to seal the lobby from heat and hot gases in the event of a fire.
- Painted, plaster block walls and plastered concrete ceilings. All class 0 surface spread of flame.
- There are no soft furnishings or combustible items within the common areas. Soft furnishings within flats have not been considered.
- Two fireman's lifts are provided with one lift accessing even numbered floors and the other odd numbered floors, opening in the flat lobby area. It is understood that the lifts were renewed in 1998. The lifts were allowed in flat lobby areas at the time of construction provided flat entrance doors were within 4.5 metres of a staircase. Distances vary from between 1 and 5.2 metres. All flat entrance doors are FD60S fire resisting doors. This arrangement is deemed acceptable.

- From a visual inspection only, there were no obvious signs to indicate that there is a concern over the compartmentation between the individual flats and between the common parts.

There was no evidence to suggest that the existing compartmentation would not support a 'stay put' strategy.

19. EMERGENCY ESCAPE LIGHTING

19.1 Has a reasonable standard of emergency escape lighting been provided⁴⁾?

N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- Non-maintained emergency lighting is provided throughout the communal areas of the premises. After a visual inspection only all units appear to be in good working order.
- The emergency lighting that is provided will produce sufficient coverage for the size and occupation level of this building.
- In line with guidelines provided in BS5266-1:2016, the emergency lighting units are subject to monthly and annual tests, which are carried out by PCH approved contractor AWL. The last annual test was carried out December 2021.

20. FIRE SAFETY SIGNS AND NOTICES

20.1 Is there a reasonable standard of fire safety signs and notices?

N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- The premises had a sufficient amount of directional fire exit displayed throughout the common areas of the premises.
- 'Fire Door Keep Locked Shut' signs were displayed on all doors where required (those without a self-closing device and were kept locked).
- 'Fire exit' signs were displayed above all designated fire escape doors.
- Fire action notices were displayed on each entrance to both of the stairwells (all floors). At the time of the assessment fire safety signs and notices were in good condition and clearly visible

⁴⁾ Based on visual inspection, but no test of illuminance levels or verification of full compliance with relevant British Standards carried out.

21. MEANS OF GIVING WARNING IN CASE OF FIRE

- | | | |
|------|--|--|
| 21.1 | Is a reasonable fire detection and fire alarm system provided in the common areas, where necessary ⁵⁾ ? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 21.2 | If there is a communal fire detection and fire alarm system, does it extend into the dwellings? | N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| 21.3 | Where appropriate, has a fire alarm zone plan been provided? | N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 21.4 | Where appropriate, are there adequate arrangements for silencing and resetting an alarm condition? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 21.5 | Is separate domestic hard-wired smoke/heat alarm within the flats installed to a suitable standard? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Relevant information (including description of arrangements and deficiencies observed):

- In line with guidance given in 'Fire Safety in Purpose Built Block of Flats' and as this is a 'General Needs' purpose built block of flats with a 'Stay Put' strategy, no communal fire alarm system is appropriate.
- The sprinkler system is linked to a fire alarm panel, in the entrance lobby. This includes detection in the electrical intake room (the only area not covered by sprinklers), and the Ranger's office.
- This system is maintained and tested by AWL. There are weekly and quarterly as well as annual services. The last quarterly check was in May 2022
- All flats have working smoke and heat alarms.
- All flats are checked for fire alarm provision as part of a rolling programme. They are checked as part of the annual gas safety check. Regular ongoing checks are carried out by housing officers.
- Information gained from PCH's electrical team indicate that the separate domestic system fitted within the flats in this block is a BS5839 Pt. 6 compliant, grade D1 category LD2 alarm system with smoke alarm units installed in the hallway, heat alarms and Carbon Monoxide detection units in the kitchen.
- Leaseholders are advised to fit the same standard of domestic system within their properties.

Relevant information on false alarm experience (if known):

⁵⁾ Based on visual inspection, but no audibility tests or verification of full compliance with relevant British Standard carried out.

22. MANUAL FIRE EXTINGUISHING APPLIANCES

- 22.1 Is there reasonable provision of manual fire extinguishing appliances? N/A ☐ Yes ☒ No ☐
- 22.2 Are all fire extinguishing appliances readily accessible? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- Firefighting equipment is provided in risk rooms only, lift motor room, ranger's room electrical intake room. The sprinkler system has been installed to cover the whole building other than the garage and electrical intake room. It can be supplemented by the inlet breaching.
- All extinguishers were appropriate for the hazards in the vicinity.
- All extinguishers are subject to an annual servicing and maintenance programme. This is carried out by PCH approved contractor Universal Fire and Security. Date of next test October 1st 2022.

23. RELEVANT AUTOMATIC FIRE EXTINGUISHING SYSTEMS⁶⁾

- 23.1 Type of fixed system:

Fire sprinkler system complying with BS 9251 2014 installed. Full coverage apart from the basement car park and electrical intake room

Relevant information and deficiencies observed:

A sprinkler breaching inlet valve is located outside the basement entrance at the lower ground floor level to augment the sprinkler supply if required. Each flat and landing is provided with sprinkler 'isolation' valves secured by a universal padlock. The sprinkler stop valve is located in the undercroft.

Sprinkler system is connected to an alarm receiving centre by an auto dialler unit linked to the fire alarm panel. Sprinkler activation will trigger the 'silent alarm'. The sprinkler system is subject to a routine annual service, the last service was October 2022

⁶⁾ Relevant to life safety and this risk assessment (as opposed to property protection).

24. OTHER RELEVANT FIXED SYSTEMS AND EQUIPMENT⁷⁾

24.1 Type of fixed system:

- The premises is provided with a dry riser installed within protected staircase.
- The inlet valve is located inside the basement entrance on the lower ground floor.
- There are outlets on all half landings of the protected staircase serving all floors of the building.
- No wet riser or firefighting lift installed.
- Two Fireman's lifts are provided with override controls only.

Relevant information and deficiencies observed:

As part of this FRA; a visual inspection including opening and closing of each dry riser outlet was completed. The outlets operated satisfactorily.
The dry riser main is subject to a regular inspection, testing and maintenance programme which is carried out by PCH approved contractor Fire Defence Servicing Limited. Records held electronically to support this. The last annual test was completed March 2022.

- 24.2** Are there appropriately sited facilities for electrical isolation of any photovoltaic (PV) cells, with appropriate signage, to assist the fire and rescue service? N/A ☒ Yes ☐ No ☐

Relevant information (including description of arrangements and deficiencies observed):

None installed in the premises at the time of this assessment.

MANAGEMENT OF FIRE SAFETY

25. PROCEDURES AND ARRANGEMENTS

25.1 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:

Fire safety Manager

⁷⁾ Relevant to life safety and this risk assessment (as opposed to property protection).

25.2 Fire safety at the premises is managed by⁸⁾:

PCH staff including – the Tower Liaison Officer, the onsite Rangers and Housing Officer's assigned to the premises.

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

Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- All records held, monitored and maintained electronically.
- Each resident receives an information pack on arrival which contains general fire safety advice.
- A Premises Information Box (PIB) aka 'Gerda' box, is located near the entrance lobby for use by the Fire and Rescue Service. This contains a vulnerable person's list, a tactical firefighting plan, plans of the premises and keys for the building.

25.4 Evacuation strategy

- ☒ Stay put
- ☐ Simultaneous evacuation
- ☐ Other (please specify below)

A 'Stay Put' strategy is in place and appropriate for this premises. There are fire action notices in place throughout the premises that reinforce this policy.



25.5 Are procedures in the event of fire appropriate and properly documented, where appropriate⁹⁾?

Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

⁸⁾ 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.

⁹⁾ Based on brief review of procedures at the time of this fire risk assessment. In-depth review of documentation is outside the scope of this fire risk assessment, unless otherwise stated.

- All residents are issued with an information pack on arrival, containing information on actions in the event of a fire.
- Fire action poster also displayed in the premises reinforcing the actions to take in the event of a fire.
- There are fire action notices in place throughout the premises, such as lift lobbies, that reinforce this policy.

25.6 Are routine in-house inspections of fire precautions undertaken (e.g. in the course of health and safety inspections)? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

The onsite Rangers undertake daily inspections of all communal areas of the premises, visual checks of the fire safety arrangements are included in these inspections.

26. TRAINING AND DRILLS

26.1 Are all staff given adequate fire safety instruction and training? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- Housing Officers and mobile rangers have fire awareness training on induction and annually thereafter.
- Rangers complete the 'Fire Warden's' course, which includes fire extinguisher training

26.2 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 ☐

Relevant information (including description of arrangements and deficiencies observed):

External contractor works are supervised by works permits or in-house teams.

27. TESTING AND MAINTENANCE

27.1 Is there adequate maintenance of the premises? Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

The premises are subjected to regular rolling maintenance programmes and repairs can be reported by residents or staff to be completed by approved contractors or by in-house teams.

27.2 Is weekly testing and periodic servicing of the fire detection and fire alarm system undertaken? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- The fire warning system linked to the sprinkler system and evacuation system is tested weekly, quarterly and annually by AWL.
- Residents are responsible for testing their own smoke/heat alarms on a regular basis.

27.3 Are monthly and annual testing routines in place for the emergency escape lighting? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

In line with guidelines provided in BS5266-1:2016, the emergency lighting units are subject to monthly and annual tests, which are carried out by PCH approved contractor AWL. The last annual test was carried out December 2021.

27.4 Is annual maintenance of fire extinguishing appliances undertaken? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- The fire extinguishers are subject to a visual monthly inspection by the onsite Ranger and serviced by PCH approved contractor Universal Fire and Security annually. The last recorded annual service was carried out October 2021.

27.5 Are six-monthly inspection and annual testing of rising mains undertaken? N/A ☐ Yes ☒ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- The dry rising main is subject to regular inspections and testing, which are carried out by PCH approved contractor Fire Defence Servicing Limited. Records to support this held electronically. The last annual test was carried out March 2022.
- A six-monthly inspection was completed at the time of this FRA by the Fire Safety Manager

27.6 Are weekly and monthly testing, six-monthly inspection, and annual inspection and testing undertaken of lift(s) provided for use by firefighters or evacuation of disabled people (evacuation lifts)? N/A ☒ Yes ☐ No ☐

Relevant information (including description of arrangements and deficiencies observed):

- There are no firefighter's lifts or evacuation lifts installed in the premises.
- Two Fireman's lifts are provided with override controls, these are inspected every six months and maintained annually by PCH approved contractors RJ Lifts. All records to support this held electronically. The last recorded test was carried out May 2021.

27.7 Other relevant inspections or tests:

Lightning protection system is fitted and is subject to a regular maintenance contract along with visual inspections –last test 24/02/2022

Relevant information (including description of arrangements and deficiencies observed):

A new lightning protection system has been attached to the Building Maintenance Unit (BMU) and was the responsibility of the main contractors to maintain and test until all building works were completed (Autumn 2021). The lightning protection system will be regularly maintained and serviced annually by PCH approved contractor South West Lightning Protection.

28. RECORDS

28.1 Are there appropriate records of:

- | | |
|--|--|
| a) Fire alarm tests (where relevant)? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| b) Emergency escape lighting tests? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| c) Maintenance and testing of other fire protection systems and equipment? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Relevant information (including description of arrangements and deficiencies observed):

All records held, monitored and maintained electronically.
K:\Building Services\Operation - Repairs\Electrical\Planned Maintenance

29. PREMISES INFORMATION BOX

- | | |
|---|--|
| 29.1 Is there a suitably located premises information box for the fire and rescue service? ¹⁰⁾ | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 29.2 Are there arrangements to keep the premises information box up to date? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Relevant information (including description of arrangements and deficiencies observed):

- There is a Premises Information Box located on the ground floor in the lift lobby of the premises. The Fire Service have been given door entry fob and the key safe combination to the Premises Information Box to assist in their initial entry.
- The information in the Premises Information Box is regularly updated by the Housing Officers assigned to the premises.

30. ENGAGEMENT WITH RESIDENTS

- | | |
|---|--|
| 30.1 Has information on fire procedures been disseminated to residents? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 30.2 Is fire safety information disseminated to residents? | N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Relevant information (including description of arrangements and deficiencies observed):

- Relevant information is contained in the Residents' Welcome Pack, which is issued to all new tenants.
- Fire procedure notices are prominently displayed on the ground floor of the communal stairwell.
- Seasonal fire safety information is shared with residents via online posts to the Plymouth Community Homes' website.

RELEVANT INFORMATION

¹⁰⁾ Normally applicable only to sheltered and extra care housing.

31. ADDITIONAL RELEVANT INFORMATION

Relevant information (including description of arrangements and deficiencies observed):

None.

FIRE RISK ASSESSMENT

The following simple risk level estimator is based on a commonly used risk level estimator:

Potential consequences of fire → Likelihood of fire ↓	Slight harm	Moderate harm	Extreme harm
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:

Low ☐ Medium ☒ High ☐

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:** Normal fire hazards (e.g. potential ignition sources) for this type of occupancy, with fire hazards generally subject to appropriate controls (other than minor shortcomings).
- High:** Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.

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 outside the flat of origin.
- Moderate harm:** Outbreak of fire could foreseeably result in injury (including serious injury) of one or more occupants, but is unlikely to result in multiple fatalities.
- Extreme harm:** Significant potential for serious injury or death of one or more occupants.

Accordingly, it is considered that the risk to life from fire at these premises is:

Trivial ☐ Tolerable ☒ Moderate ☐ Substantial ☐ Intolerable ☐

Comments:

None.

A suitable risk-based control plan should involve effort and urgency that are proportional to risk. The following risk-based control plan is based on one advocated for general health and safety risks:

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.

ACTION PLAN

It is considered that the following actions should be implemented in order to reduce fire risk to, or maintain it at, the following level:

Trivial ☐ Tolerable ☒

Definition of priorities (where applicable):


Priority	Description	Timescale
Immediate	When an immediate and unacceptable fire safety risk is present.	Dealt with at time of assessment. Follow up within 48 hours
Immediate managerial	When an immediate and unacceptable fire safety risk from managerial issues are found to be present.	Dealt with at time of assessment. Follow up within 48 hours
A	Urgent fire safety issues found but not concerning life safety.	3 Months
B	These items are regarded as important but a lead time to organise is recognised to be necessary.	Within 9 months
C	Where an immediate risk to fire safety is not present but improvements/actions are necessary to maintain the essential systems & standards.	18 months
D	Works to be considered in future improvements or ongoing/rolling maintenance programmes.	Programme inclusion
M	Relates to continuing managerial responsibility or recognised best practice guidance.	6 months
Pr (A-D)	Previous recommended (in last FRA) and not yet completed.	Work understood to be programmed


ACTION PLAN

It is considered that the following actions should be implemented in order to reduce fire risk to, or maintain it at, the following level:

Trivial ☐ Tolerable ☒

Definition of priorities (where applicable):

Item	Report Ref.	Recommendation	Transferred to	Priority
1.	17.2(j)	Flats numbered 204, 230, 280, 288, 318, 350 and 366 are leasehold properties and require an inspection to confirm if a working self-closing device is fitted.	Leasehold	B
2.	17.2(o)	Communal door from stair on floor 4 has damage to cold smoke seal, this should be repaired 	Fire door team/contractor	B

Item	Report Ref.	Recommendation	Transferred to	Priority
3.	17.2(o)	<p>The smoke seals on the laundry doors on the ground floor are damaged and should be repaired.</p> 	Fire door team/contractor	B
Future Considerations (where appropriate)				
4.	17.2	The door and opening leading to the recycling store is to be widened to prevent the reoccurring damage to the wooden fire doors. This is scheduled for late summer/autumn 2022	Fire safety team/contractor	Pr

REFERENCES

Guidance in Support of Fire Safety Legislation

England and Wales

HM Government Guides to Fire Safety Risk Assessment, DCLG:

- Sleeping Accommodation.
- Means of Escape for Disabled People.

Guidance in Support of Building Regulations

England and Wales

Approved Document B Vol 2, 2019 edition (as amended).

Local Government Association's *Fire Safety in Purpose-Built Blocks of Flats*

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.*

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 79-2:2020 *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.