

**FIRE SAFETY STANDARDS
FOR
PRIVATE RENTED SECTOR**

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Introduction

This document provides guidance primarily for the design of fire safety schemes for existing rented houses. However the sections in the guide relating to risk assessment and back to back houses apply equally well to owner occupied houses.

The guidance is focused in particular on houses in multiple occupation (HMOs), and self contained flats, and it suggests some fire safety schemes for a range of types of HMOs. The purpose of the guidance is to enable landlords to design such residential accommodation so as to reduce or eliminate fire and associated smoke risks so that enforcement action is not required under the housing health and safety rating system.

The guidance includes advice on how to carry out a fire safety risk assessment of properties in order to determine what fire safety measures, if any, are appropriate. No schemes are suggested for singly occupied properties as these tend to have the lowest fire risk. Landlords can use the guide's fire safety risk assessment system to decide on any precautions that may be appropriate.

However certain types of back to back properties have a high fire risk because of their layout. Accordingly the guidance includes suggested fire safety schemes for some of the more common types of back to back properties.

The emphasis of the guide is on risk assessment and design principles for fire safety schemes to reduce fire risks. Users of this guide will need to assess the fire risk in a particular situation when deciding on an appropriate fire safety scheme. Within this guide the use of asterisks ** next to a fire safety measure denotes that the provision or the extent of the measure, should be based on a risk assessment.

There will always be occasions when the particular circumstances of a property do not conveniently slot into one of the situations described within this guide. In these cases the designer of a fire safety scheme will need to assess the fire risk and make judgements based on the design principles contained within this guide.

In unusual situations where the design of a fire safety scheme is problematic, advice can be sought from the Council's Private Sector Housing Unit or from the West Yorkshire Fire and Rescue Service or from the council's Building Control Unit.

Fire safety works may be building work for the purposes of Building Regulations and require approval from the council's building consultancy. Also new buildings and changes of use of existing buildings to form new houses in multiple occupation or new self contained flats require approval under the 1991 & subsequent building regulations administered by the Council's Building Control Unit.

Where an HMO or building in self contained flats has been created after and in compliance with the building regulations 1991 or later, then subject to a risk assessment to identify any new fire safety hazards that may have arisen, the presumption can be made that the fire safety precautions are satisfactory. This document will be periodically revised and updated; therefore you are advised to check that this is the current edition before carrying out any of its suggestions.

GLOSSARY

Storeys

References to storeys are those at ground level and above.

Protected route of escape and fire doors

A protected route of escape requires walls and ceilings to stairs, including the structure separating ground and basement levels, to be of 30 minute fire resisting construction.

Sound lath and plaster can be regarded as being 30 minute fire resisting. If plaster is un-keyed or perished then renew or overboard.

Doors opening onto the escape route to be 30 minute fire doors (FD30S). The door or frame should be fitted with intumescent strips and the door with a smoke seal.

It is not recommended that existing doors be upgraded but that the door and frame be replaced with a new doorset (FD30S).

Doors and frames should not be upgraded unless they are of special architectural merit, in which case further professional advice should be obtained as how best to achieve this.

The final exit door(s) from HMOs/flats must be fitted with a lock that can be opened from the inside without the use of a key. Similarly the doors separating units of accommodation from the escape route must be capable of being opened from the inside without the use of a key.

Wall and ceiling surface coverings should be of a nature that will not assist the spread of flame.

Gas or electric meters located in cupboards that are large enough to be capable of storing potentially flammable materials and which are situated in the staircase enclosure, should be encased with materials with a 30 minute fire resistance.
Storage cupboards situated within the staircase enclosure should be kept shut and lined with material to provide 30 minute fire resistance and provided with a 30 minute fire door.

Inner Rooms

These are rooms within rooms e.g. one partitioned off from a larger room and therefore access to one is through the other, require special attention because of the higher risk of entrapment in the event of a fire. Does not include Ensuite & bathrooms.

An arrangement where an occupier has to pass from an inner room through a higher fire risk room in order to gain access to the escape route is normally unacceptable e.g. from a bedroom through a kitchen or living room and such arrangements should be discontinued as a matter of urgency e.g. by removing the structure enclosing the inner room.

Lighting

Whole stair lighting is where one switch illuminates all the lights in the stair. In the case of HMOs/flats with habitable basements, where a risk assessment has identified that whole stair lighting is needed and there is a habitable basement, then two lighting systems can be

installed, the first to illuminate all floors at ground level and above, and the second to illuminate the basement and ground floor levels.

Emergency Lighting Installations must comply with B.S. 5266 Parts 1 & 7.

Escape Windows

An acceptable minimum standard is an unobstructed window opening 750mm by 450 mm in any direction. The bottom of the window opening should be not more than 1100 mm and not less than 900 mm above the floor.

Automatic Fire Detection (AFD)

It is essential that the numbers of smoke alarms fitted and their siting are such that their sounding is readily audible within units of accommodation and capable of waking a sleeping person. 75 dBA at the bed head is a recommended standard. All detector heads should comply with BS5446 as a minimum.

Subject to a risk assessment, individual occupancies in shared self contained flats in multiple occupation e.g. student cluster flats, should be protected by the provision of a local, automatic fire alarm system i.e. not connected to the main system for the building. This should be designed to give warning only to the occupants of the flat so as to reduce when activated, the disruptive effects of false alarms elsewhere in the building.

Fire detectors are not required to be provided in bathrooms or WCs if there is no risk of a fire starting e.g. a bathroom or WC containing no source of ignition such as a wall mounted electric radiant fire. Note that electrically operated showers need not be regarded as a source of ignition. If a detector is required in a bath/shower room, it should be a heat detector/alarm.

Type and Grade

AFDs are described by 'type' and by 'grade'. The 'type' refers to the parts of a property that the AFD covers and the grade to the design of the system.

Type **LD1** systems cover all rooms in the property and the route of escape.

Type **LD2** systems cover the route of escape and all rooms that open directly onto it and including the entrance lobbies of self contained flats. This type is appropriate for higher fire risk properties as both the route of escape and the high fire risk rooms are protected by the system.

Type **LD3** systems cover the route of escape only. This is appropriate for lower risk situations.

Grade A systems are fully monitored systems with the use of a control panel, normally located in the ground floor hallway, that complies with BS5739 Part 4 and with the wiring, siting and type of detectors and sounders complying with BS5839 Part1.

BS5839 is the British Standard that covers the design, installation and maintenance of fire alarm systems. Fire alarm systems should be fitted in compliance with the recommendations of BS5839.

Monitored fire alarm systems are appropriate for higher risk HMOs as the control panel constantly monitors that the detectors and sounders are functioning properly. If a fault occurs, then the control panel will indicate this.

Grade D fire alarm systems have smoke/heat detectors and sounders incorporated in the same unit that is fixed to the ceiling and connected to the mains electrical wiring system. The detectors are then inter-linked so that when one detector is activated all the alarms will sound. Each detector/sounder should have a back up power supply i.e. an automatically rechargeable battery within the unit.

The Grade D detector/sounder units are the normal domestic battery operated smoke/heat detectors but manufactured to be capable of being mains wired and inter-linkable.

Grade D systems are less expensive to purchase and install than Grade A, however they are of a lower specification and therefore not suitable for higher fire risk HMOs.

Where cooking facilities are provided in a room, then a heat detector shall be fitted rather than a smoke detector in order to avoid false alarms.

Fire Fighting Equipment

It is recommended that a fire blanket is provided in each kitchen and situated sufficient distance away from the cooker so as to be safely removed from its housing in the event of a fire on the cooker.

Risk Assessment

In the case of self contained flats that are let as shared HMOs e.g. student cluster flats, the design of any appropriate fire precautions within the flat should be based on a risk assessment.

The use of asterisks **.. in this Guidance identify an issue which is dependant on risk assessment.**

THE PRINCIPLES OF RISK ASSESSMENT FOR FIRE SAFETY

The risk of death or injury from fire can be assessed by considering:

1. The likelihood of a fire starting
2. Factors that increase the risk of harm from fire

The likelihood of a fire starting

The two factors influencing likelihood are:

A. The vulnerability of the occupiers

The elderly, the young, people with personal challenges such as drug abuse, and people with low fire safety awareness e.g. young students, are more likely to be the cause of a fire through carelessness or lack of fire safety awareness.

B. Sources of ignition

The main sources of ignition include:

- Cookers
- Radiant space heaters
- Portable space heaters
- Smoking materials
- Non fire retardant fabrics and furnishings
- Electrical appliances
- Electrical wiring in poor condition
- Inadequate numbers of electrical power points causing overloading
- Candles
- Inappropriate drying of clothes

Factors that increase the risk of harm from fire

The main building characteristics that increase the risk of death or injury from a fire include:

- Number of occupiers
- Number of storeys
- Travel distance to evacuate the building
- Complex escape route
- Final exit doors needing the use of a key to be opened
- Location of kitchen
- Flammable materials within the escape route – wall coverings, furniture, fittings
- Size of rooms
- Security grilles fixed to windows and external doors
- Rooms where the means of escape is through another high fire risk room
- (e.g. through the kitchen)

Fire safety measures

The following fire safety measures will reduce the risk of death or injury from fire:

- The provision of a 30 or 60 minute fire protected route of escape
- Fire separation between units of accommodation including walls & ceilings
- Fire doors
- Cold smoke seals, intumescent strips and self closing devices fitted to doors & quick release locks
- Automatic and manual fire detection systems
- Emergency lighting
- Whole stair lighting – one switch turns all lights on
- Escape windows
- Sprinkler and mist systems
- Fire extinguishers and fire blankets
-

How to undertake a risk assessment

Landlords should consider the above information when undertaking a risk assessment at their property and decide:

A. What is the likelihood that a fire may cause death or injury?

B. What building characteristics are likely to increase the risk of harm?

C. Then decide what fire safety measures, from the list provided earlier, are needed to reduce the fire risk to a reasonably acceptable, or minimise the likelihood of harm should a fire start and including:

- Increasing tenant's safety awareness
- Removing potential sources of ignition
- Providing an early warning system
- Providing a safe route of escape
- Providing fire fighting measures

FIRE SAFETY SCHEMES FOR EXISTING HOUSES IN MULTIPLE OCCUPATION INCLUDING EXISTING SELF CONTAINED FLATS

SECTION A1. Bedsit and Flats (eg. hmos occupied as bedsits, non self contained flats and self contained flats)

These are HMOs where parts of the HMO are rented as individual lettings with exclusive use of certain rooms. Occupiers may share washing, WC and kitchen facilities, but do not usually have a communal living room. The occupiers of the HMO tend not to have the characteristics of a single household. The building is almost always let in parts with each individual/household having their own tenancy agreement that may specify the part of the accommodation that they occupy.

Examples:

- Single room bedsits – may have exclusive use of washing, WC and kitchen facilities or may share
- Flatlets – multi-room lettings sharing some washing, WC and kitchen facilities
- Non self contained flats - single or multi-room lettings with exclusive amenities
- Self contained flats - single or multi-room lettings with exclusive amenities and all behind the flat's exclusive entrance door

1. TWO STOREY BUILDINGS

No floor level exceeding 4.5 metres in height above ground.

30 minute route of escape

LD2 Grade D AFD

Emergency Lighting

Whole Stair Lighting

Risk assess whether needed and to what extent

NOTES

1. Basements and cellars

- i. ***If not occupied as habitable rooms*** - are required to be separated from the ground floor by a half hour fire resisting construction. The basement to be kept free from any storage and the entrance door thereto to be kept locked and the key kept by the manager. Smoke alarms interlinked with the main system to be provided to the underside of the ground floor escape route.
- ii. ***If occupied as habitable rooms*** - The same design principles for the entire HMO are to be followed as if the HMO was a three storey HMO as detailed in the following section. The exception to the above is in respect of emergency lighting and whole stair lighting. These need only be provided if a risk assessment identifies that there is a need.

2. Inner Rooms – See notes below.

Inner rooms can be satisfactory in some circumstances where they are served by a window of a sufficient minimum openable size and position so as to facilitate rescue by the Fire Service, and the inner and access rooms are provided with a mains wired interlinked fire detection system that complies with B.S. 5859 Part 6 Grade D.

THREE STOREY BUILDINGS (above ground level)

One or more floor level exceeds 4.5 metres above ground level.

30 minute route of escape

LD2 Grade A AFD

Whole Stair Lighting

Manual fire alarm

Emergency Lighting

Risk assess whether needed and to what extent

NOTES

1. Basements *not* occupied as habitable room:

are required to be separated from the ground floor by a half hour fire resisting construction. Smoke detectors should be provided in all rooms within the basement/cellar including circulation areas and any area beneath a route of escape on the ground floor.

2. Basements *occupied* as habitable rooms:

- a. The basement should be separated from the escape route from upper floors by materials having a minimum of 30 minutes fire resistance.
- b. The basement rooms should be provided with a 30 minute protected route of escape to the ground floor exit door(s). If a 30 minute route of escape from the basement cannot be achieved, then the basement should have its own final exit door (not located within a unit of accommodation) or alternatively escape windows provided to all habitable rooms within the basement.
- c. If the ground floor is separated from the basement stair by a structure containing a door, then the structure should be removed or the basement separated from the ground floor by two 30 minute fire doors, one at the head and one at the bottom of the stair. It may be necessary to provide a fire resisting partition at the bottom of the stairs in which to fit a fire door. The purpose of this is to prevent the basement to ground floor stairs becoming smoke filled. Note that in these situations it is not sufficient to have a single 60 minute fire door at the top or bottom of the stairs.
- d. Basement rooms in individual occupancies e.g. bedsit rooms, will need to be provided with 30 minute fire doors.

3. Inner rooms See glossary.

- a. These are not acceptable at second floor level
- b. Unless a fire protected route from the inner room to the protected stairway can be created, then the structure separating the two rooms should be removed and the two rooms made into one.

4. Self closing devices on fire doors

All fire doors in **Bedsits, Flats** (eg. hmos occupied as bedsits, non self contained flats and self contained flats) must be provided with self closing devices. This does not apply to storage cupboards clearly marked Fire door Keep Shut.

HOSTELS

This relates to HMOs generally referred to as hostels, guest houses, bed & breakfast provided for people with no other permanent place of residence. The category includes hostel and bed and breakfast establishments used by local authorities for housing homeless people, or similar establishments which provide accommodation for single people whose only financial support is state benefit and who would otherwise be homeless.

The fire safety design principles applying to hostel type accommodation are the same as those described previously with the exception of the type of automatic fire detection system to be provided.

In a three storey hostel, **all** rooms (excluding bathrooms and W.C.s containing no fire risk) are required to be provided with a fire detection system in accordance with B. S. 5839 Part 1, as opposed to the use of domestic type smoke and heat alarms. All the detectors are required to be linked into the same system i.e. there are no separate systems for the protection of the means of escape and individual occupancies.

In one and two storey hostels it is sufficient to use interlinked smoke and heat alarms in accordance with B.S. 5939 Part 6. All alarms require to be linked into the same system as described above. In larger hostels of one or two storeys the choice between a B.S. 5839 Part 1 or Part 6 system should be made in consultation with West Yorkshire Fire Service.

SECTION B: Shared Houses (shared HMOs e.g. student and young professional accommodation)

These are HMOs rented to a group of people, commonly students or young professional adults. Occupiers share personal washing, WC and kitchen/dining facilities and usually have a communal living room. The occupiers of the HMO tend to have some of the characteristics of a single household. The HMO is usually but not always let on a single joint contract.

GROUP A. PROPERTIES WITHOUT HABITABLE BASEMENTS

References to storeys are those above ground level.

1. Large shared HMO; 3 storeys; 7+ occupants

- 30 minute route of escape
- LD2 Grade A AFD
- ****Whole stair lighting****
- ****Manual fire alarm****
- ****Emergency lighting****

****Risk assess whether needed and to what extent****

2. Medium sized shared HMO; 3 storeys; 5 or 6 occupants

- 30 minute route of escape
- LD2 Grade D AFD
- ****Emergency lighting****

****Risk assess whether needed and to what extent****

3. Small shared HMO; 3 storey; 3 or 4 occupants

- fire doors on the kitchen and living room
- LD3 Grade D AFD (including kitchen and living room)
- ****30 minute route of escape****
- ****LD2 Grade D AFD****

****Risk assess the need for a 30 minute route of escape throughout the property and LD2 Grade D****

4. Small shared HMO; 2 storey; up to 6 occupants

- 30 minute fire door to kitchen and ****living room****
- LD3 Grade D AFD including the kitchen and ****living room****

****Risk assess the need for a fire door to be fitted to the living room; if not necessary then the AFD system does not need to include the living room****

NOTES

1. For all the fire precautions suggested above it has been assumed that there is no basement or cellar.
2. Where there is a basement or cellar that is only used for storage or occasional use e.g. containing a washing machine and/or drier, then in the case of a 2 storey property the AFD should be extended to cover the basement.
3. In the case of a 3 storey property the AFD must cover the basement; the use of the basement needs to be risk assessed to determine the need for 30 minute fire separation between the basement and the ground floor; at a minimum the underside of the ground floor route of escape should have 30 minutes fire resistance.
4. In the case of A.1 HMOs described above i.e. (3 storeys; 7+ occupants), all fire doors must be fitted with a hydraulic self- closing device. In the case of lower risk HMOs the need to fit self- closing devices should be based on a risk assessment.
5. Where, following a risk assessment, a manual alarm system is deemed to be necessary, then a break glass point need only be fitted adjacent to the final exit door(s).

GROUP B. PROPERTIES WITH HABITABLE BASEMENTS

1. Large shared HMO; 3 storeys plus habitable basement; 7+ occupants

- 30 minute route of escape
- If a 30 minute route of escape from the basement to a ground floor exit cannot be achieved, then the basement should have its own final exit door (not located within any individual unit of accommodation) or alternatively escape windows provided to all habitable rooms within the basement
- LD2 GRADE A AFD
- ****Whole stair lighting****
- ****Emergency lighting****
- ****Manual fire alarm system****

****Risk assess whether needed and to what extent****

2. Medium sized shared HMO; 3 storeys plus habitable basement; 5 or 6 occupants

- 30 minute route of escape
- If a 30 minute route of escape from the basement to a ground floor exit cannot be achieved then the basement should have its own final exit door (not located within any individual unit of accommodation) or alternatively escape windows provided to all habitable rooms within the basement
- LD2 Grade A AFD
- ****Whole stair lighting****
- ****Emergency lighting****

****Risk assess whether needed and to what extent****

3. Small shared HMO including habitable basement; 3 storey plus habitable basement up to 4 occupants or 2 storey plus habitable basement up to 6 occupants

- fire doors on the kitchen and living room
- LD3 Grade D AFD (including kitchen and living room)
- If a 30 minute route of escape from the basement to a ground floor exit cannot be achieved, then the basement should have its own final exit door (not located within any individual unit of accommodation) or alternatively escape windows provided to all habitable rooms within the basement
- ****30 minute route of escape****
- ****LD2 Grade D AFD****

****Risk assess the need for a 30 minute route of escape throughout the property and LD2 Grade D****

NOTE:

In the case of B.1 HMOs described above i.e. 3 storeys plus habitable basement; 7+ occupants, all fire doors must be fitted with a hydraulic self closing device. In the case of other lower risk HMOs the need to fit self-closing devices should be based on risk a assessment.

SECTION C: SUGGESTED FIRE PRECAUTIONS FOR BACK TO BACK HOUSES

The suggested fire precautions are for singly occupied back to back properties.

1. Two or three storey back to back property entered through the living room with a side kitchen directly off and to the side of the living room, and the stair to the upper floor(s) also off the living room

- Escape window at first floor level
- LD3 Grade D AFD
- Sound close fitting door between the living room and the stair

30 minute fire resistant fire door and frame to be fitted at the bottom of the stair if no door is present or if the existing door is not sound or close fitting.

2. Two or three storey back to back property entered through the living room with a side kitchen directly off and to the side of the living room, and the stair to the upper floor(s) off the kitchen

- Escape window at first floor level
- LD3 Grade D AFD with a heat detector in the kitchen
- Sound close fitting door between the living room and the stair

3. Two or three storey back to back with a single living room kitchen (combined) at ground floor level with the stair to the upper floor(s) directly off.

- LD3 Grade D AFD with a heat detector in the living room/kitchen
- Escape window at first floor level
- Sound close fitting door between the living room and the stair

NOTE

1. An alternative fire safety measure in the case of a stair leading off the living room, space permitting, is to create an escape corridor by partitioning off the living room.
2. Habitable basement rooms in back to back properties should have a protected route of escape to the ground floor exit or be provided with an exit door at basement level (not located within any individual unit of accommodation) or escape windows.
3. The design of fire safety precautions in back to back properties occupied as shared HMOs should be based on a risk assessment and the precautions outlined in Section B (shared HMOs) of this document.