

IMPORTANT NOTE

This purpose of this document is to advise inspecting officers, installers and landlords on the requirements under the various pieces of legislation, British Standards and advice documents.

It is not comprehensive in all the details as stated in legislation and the Blackpool Council can accept no responsibility for any such omission in this guidance.

All fire precautionary works undertaken in any house in multiple occupation must be done in consultation with the Blackpool Council, Environmental Services Division.

Fire Precautions

These guidance notes have been produced following consultation between Environmental Health Officers, Building Control Officers and Fire Officers from Lancashire and Greater Manchester.

This document is primarily a practical technical guide, the use of which should ensure consistency of approach in Lancashire and Greater Manchester.

The guidance does not provide fire safety solutions for any one property, as all properties are different. It does describe works that will contribute to fire safety for compliance with the legislation.

Properties that are being converted to an HMO must comply with the Blackpool Council Supplementary Planning Guidance Note 10 “ Change of use of holiday accommodation and conversion of properties to permanent residential use and holiday flats” and with approved Document B of the Building Regulations. It is for these reasons that the notes are intended for existing HMOs and not those properties for conversion to HMOs.

Whilst advice is given on multi storey buildings these notes are primarily for HMOs served by a single stairway and where the highest floor is not more than 11metres above ground level. In Blackpool, this is normally HMOs no higher than four storeys.

The guidance must never be used for situations where the residents are unable to escape unaided in the event of a fire.

INDEX

- 1.0 **PREMISES CONVERTED INTO SINGLE UNITS OF ACCOMMODATION**
- 1.1 Escape from a unit of accommodation.
- 1.2 Travel Distances
- 1.3 Escape from the accommodation entrance door to the final exit
- 1.4 Stair enclosures

- 2.0 **HOSTEL ACCOMMODATION**
- 2.1 Horizontal escape
- 2.2 Widths

- 3.0 **MIXED USER BUILDINGS**

- 4.0 **STAIRWAYS**
- 4.1 Internal Stair Enclosures
- 4.2 External Stairways
- 4.3 Stairway to Basement
- 4.4 Width of Stairs
- 4.5 Access lobbies and corridors
- 4.6 Exits from protected Stairways
- 4.7 Ropes/ladders etc
- 4.8 Lifts

- 5.0 **BASEMENTS**
- 5.1 Occupied Basements
- 5.2 Basements and Housing Health and Safety Requirements
- 5.3 Defined Zones of Fire Resisting Construction

- 6.0 **FIRE RESISTING DOORS**
- 6.1 Intumescent Strips
- 6.2 Smoke Seals
- 6.3 Ironmongery
- 6.4 Glazing
- 6.5 Self-Closing Devices

- 7.0 **FIRE RESISTANCE**
- 7.1 Floors
- 7.2 Upgrading and existing floor to provide half hour fire resistance
- 7.3 Upgrading an existing floor to provide one hour fire resistance
- 7.4 Walls and Partitioning
- 7.5 Fire Resisting Glazing

- 8.0 **AUTOMATIC FIRE DETECTION INSTALLATION**
- 8.1 Two Storey HMOs
- 8.2 Three or more Storey HMOs
- 8.3 General Provisions

- 9.0 **EMERGENCY LIGHTING**
- 9.1 One and Two Storey HMOs
- 9.2 Three and Four Storey HMOs
Examples of Room Layouts and Detector/Alarm Locations

- 10.0 **FIRE FIGHTING EQUIPMENT**

- 11.0 **NOTICES SIGNS AND INFORMATION**

MEANS OF ESCAPE.

This incorporates fire resistance and alarm/fire detection measures and is based on the full evacuation of the building in the event of a fire.

1.0 PREMISES CONVERTED INTO SINGLE UNITS OF ACCOMMODATION

Appropriate for Bedsits, shared facility flats and self contained flats. In exceptional circumstances some buildings may have been converted with the benefit of Approved Document B and the may contain some fire engineering solutions which should not be altered without careful consideration.

1.1 Escape from a unit of accommodation.

Inner rooms are unacceptable in that they present an unacceptable hazard to the tenants. The only acceptable layout is when the inner room is a:

- ✓ Kitchen
- ✓ Laundry or utility room
- ✓ Dressing room
- ✓ Bathroom, WC or shower room.

The problem of inner habitable rooms (bad arrangement) may be overcome by the provision of an escape window provided that no other solution is possible and it does not create a hazard that would result in injury to the occupier in the event of a fire. Under no circumstances are escape windows permitted above the first floor level. See section 5.1 for dimensions of escape windows.

In basements it may be acceptable to have inner rooms provided a suitable alternative means of escape from that room is provided. See section 5.1

'Inner inner rooms', i.e. rooms entered through more than one access room are not permitted.

In the case of self-contained flats entered through an entrance lobby the enclosure must have 30 minutes fire resistance. If fire detection is provided in the rooms off the lobby the doors should be fitted with flexible smoke seals. If fire detection is provided in the lobby the doors should **not** be fitted with flexible smoke seals.

Entrance doors into units of accommodation immediately off the common means of escape must be 30 minutes fire resisting and fitted with flexible smoke seals and intumescent strips.

1.2 Travel Distances

The travel distances given are considered to be the maximum for most circumstances, but some flexibility can be considered when this advised maximum is exceeded particularly when other factors affecting the means of escape should be taken into account.

- Habitable room – from any point within the room to the exit 9 metres
- From any exit from a room to the entrance of the accommodation 7.5 metres
- From the accommodation entrance door to the nearest stairway 7.5 metres

1.3 Escape from the accommodation entrance door to the final exit

In 2 storey HMOs it is necessary only to ensure that the stairway and any associated exit route is protected.

Hard wired smoke detectors should be provided in 2 storey HMOs see section 8.1

In HMOs with 3 or 4 storeys, in addition to a protected route it is necessary that a fire detection/alarm system be installed

In HMOs with 5 or more storeys an alternative means of escape other than a single protected staircase may be necessary and advice must be sought.

1.4 Stair enclosures

Refer to section 4.0 for guidance.

2.0 HOSTEL ACCOMMODATION

The guidance is not suitable for residential care homes and similar establishments.

For premises to which the Fire Precautions Act relates e.g. bed and breakfast permanent accommodation the Fire Authority **must** be consulted to determine who the enforcing authority shall be.

2.1 Horizontal Escape.

The number of escape routes will depend on both the number of occupants on a particular floor level and the travel distance to the nearest exit.

Where buildings have more than one staircase, initial dead ends may be permitted provided the single direction travel distances are adhered to for the dead end and there is access to another staircase.

Alternative exits will also be required from

- a room occupied by more than 30 people
- a room from which the travel distance is excessive

Inner rooms are only acceptable under the following circumstances:

- The occupant capacity does not exceed 30
- It is not a bedroom
- The escape from the inner room passes through only one access room
- Travel distances are within those described in table 1
- The access room is not be an area of a higher fire risk
- When there is no smoke detection in the access room vision panels are provided between the inner room and the access room.

Corridors used for means of escape that connect staircases or give access to or from part of an escape route should be protected corridors.

Corridors in excess of 12 metres in length which connect escape routes should be sub divided by self closing fire doors fitted with flexible smoke seals so that:

- No length of undivided corridor is common to two exits from a storey
- The fire doors are positioned to protect the route from smoke, having regard to the layout of the corridor and to any adjacent fire risks.

Table 1

Maximum Travel Distances

<u>Room/area use</u>	<u>One Direction Only</u>	<u>More Than One Direction</u>
Bedroom/sleeping area	9m	18m
Bedroom Corridors	9m	35m (max.includes 9 or 18 in room)
Elsewhere	18m	35m (max includes up to 18 in room)

Note

In areas of higher fire risk the distances should be reduced to 6m (dead end) and 12m (alternative) within the room and 12m and 25m respectively for the total travel distance.

2.2 Widths

The width of any corridor or exit on the escape route must not be less than 750mm. In larger premises where there are between 50 and 110 people being accommodated the minimum width is 850mm.

Exit routes should never reduce in width towards the final exit.

3.0 MIXED USER BUILDINGS

In this type of building there may be an increased risk to the occupiers of the residential part of the building.

In buildings of no more than 4 storeys it will be acceptable for stairs to serve both the residential and non-residential uses, provided that protected lobbies separate the stairs from each occupancy at all levels.

Any fire detection and alarm system, with alarm audible within residential unit, see section 8, should cover both the residential and non residential if the different uses are not fully compartmented for one hour fire separation

In buildings having more than 4 storeys mixed use will only be acceptable where a high standard of means of escape and other fire precautions are provided in accordance with the following considerations

- An independent alternative escape route is essential from the residential areas
- Compartmentation must be provided between each use.
- Stairs, if acceptable, should be separated from other uses at lower levels by the provision of protected lobbies

4.0 STAIRWAYS

4.1 Internal Stair Enclosures

All escape stairways should be constructed as a protected staircase and consequently be separated from the remainder of the building by fire resisting construction and fire doors.

The layout should be such that occupants should not have to pass through a protected stairway to reach another stairway or an alternative escape route. Where there is a communication through a stair enclosure to other parts of the building at the same level there is a risk that fire doors may be wedged open and this arrangement should be avoided.

In a single stairway, which continues uninterrupted from ground to the top floor, it would be advantageous for ventilation to be provided to vent smoke from the stair enclosure in the event of fire. The minimum openable area should be either 1 sq m or 5% of the cross sectional area of the stair enclosure, whichever is the greater.

Unacceptable items on the stairway enclosures include:

- Portable heaters
- Heaters with unprotected naked flame
- Heaters using a gas bottle
- Oil heaters
- Cooking appliances
- Upholstered furniture
- Wardrobes, coat racks or other storage furniture
- Gas meters other than those installed in accordance with the Gas Safety Regulations
- Electric meters or consumer units unless encased in materials to give 30mins fire resistance. New meters or units to be sited in accordance IEE Regulations and never in the common areas.

4.2 External Stairways

Where in the case of fire an external stairway is provided it must be protected from smoke and flame issuing from the building below and adjacent to the it. All doors onto the stairway below the top level must be self-closing fire doors. Any groundfloor external doors sited below the stairway must also be a self-closing fire door. Windows within 1.8m horizontally should be of the fixed type and have 30 minutes fire resistance. All weather lighting to the stairway might also be necessary.

4.3 Stairway to Basement

Where there is no fire detection in a basement there must be 1 hour fire separation between the basement and the ground floor. The stairway should be protected by a 30 minute self closing door at groundfloor level and a 30minute self closing fire door at basement level.

Ideally a stairway serving upper floors should not extend to the basement.

4.4 Width of Stairs

The width of the stairs must not be less than the doors or exit opening on to them.

4.5 Access lobbies and corridors

Protected escape stairs should be accessed from either a protected corridor or protected lobby in a single staircase building over 2 storeys in height. Where this is not practicable existing single staircase buildings may be permitted up to 3 storeys in height without lobby or corridor approach providing a fire detection system as described in section 8.0

4.6 Exits from protected Stairways

Protected stairways should lead directly to a final exit or by way of a protected passageway to a final exit.

4.7 Ropes/ladders etc

These are unacceptable in an HMO

2.8 Lifts

Unless a lift shaft is situated within a protected stairway enclosure, it should be in a protected lift shaft with close fitting fire resistant doors.

Expert advice should be sought when considering lifts.

5.0 BASEMENTS

Products of combustion rise and there is a danger that tenants attempting to escape from a fire in a basement would find that they had to move into a layer of smoke. Basements require special consideration.

5.1 Occupied Basements

Occupied basements in excess of 150 sq metres should be provided with at least two escape routes to a safe place at ground level.

In addition, inner habitable rooms must be provided with an alternative means of escape. This escape route may be by way of a window or door complying with the following requirements:

- It must have an unobstructed opening that is at least 0.33 sq m and at least 450mm high and 450mm wide and the bottom of the window opening should not be more than 1100mm and not less than 900mm above the floor.

It should enable the person escaping to reach a place of safety away from the fire. If this were into a rear yard or courtyard from which there is no exit other than through other buildings, this area would have to at least as deep as the dwelling to be acceptable.

5.2 Basements and Housing Health and Safety Requirements

The appropriate housing health and safety requirements must be borne in mind when fire related works are being undertaken. In particular the provision of a glazed area to a habitable basement room should total not less than one tenth of the floor area of the room. As a guide the window should be positioned such that from any point on the window a line can be drawn upwards at an angle of 30 degrees to the horizontal without striking an obstruction within 3 metres – this may cause difficulties where external escapes are provided.

Problems can arise when fire protection works to a basement ceiling reduce the average floor to ceiling height to less than 2.1 metres.

5.3 Defined Zones of Fire Resisting Construction

Where occupied basement windows are within 1.8 metres of a sole exit from the HMO then 1.8 metres on either side of the exit should be treated as a fire resistant zone in respect of the basement only. It will therefore be necessary for 30 minute fire resisting glazing to be provided in the 1.8 metre area.

Where an automatic fire detection system, which meets the standards in section 8.0, is provided to give extended coverage to separate areas within the basement, then the basement ceiling shall provide a minimum of 30 minutes fire resistance.

Where extended detector coverage is not provided then the ground floor shall be separated from the basement by 60 minutes fire resisting ceiling.

6.0 FIRE RESISTING DOORS

Historically fire doors are likely to have a finished thickness of either 44mm for Half hour or 54mm for one hour fire resistance. With developing technology this will not always be the case and if there is any doubt through the absence of identification on the door then certification evidence must be required.

Upgrading of existing doors should be discouraged as it is difficult to monitor the upgrading and it is difficult at a future date to determine if a door has been upgraded. If it is proposed to upgrade a door the detailed specification of the work and evidence of how the works will meet the required standard must be provided and when completed certification provided by the person carrying out the works.

Attention should be given to the effective fire stopping between existing or new woodwork and existing walling. Intumescent paste should be used to provide protection for small voids.

For half hour fire doors the frame shall have a minimum depth of 12.5 mm which can be formed from the solid or built up with a stop of a minimum 12.5mm X 35mm

One hour fire doors shall be fitted to a new solid frame and have a 12.5mm rebate. Stops must be worked from the solid and have a minimum depth of 35mm, the overall width of the frame including stop to be a minimum of 44.5mm.

The gaps between the doors and frames shall be as small as possible to accommodate intumescent strips and smoke seals, where appropriate allowing the door to close freely. The gap should never be greater than 4mm.

6.1 Intumescent Strips

Intumescent strips must not be painted over.

Where practicable intumescent strips should not be interrupted and so should for example be offset from or bypass hinges and latch plates. This may be possible with thicker one-hour fire doors, however, for half hour doors the limited advantage might be outweighed by risk of damage to the door.

With half hour fire doors the intumescent strip can be fitted to either the door or the frame.

With one-hour fire doors an intumescent strip must be fitted to both the door and the frame. The strips must be offset and not fitted directly opposite one another.

6.2 Smoke Seals

Smoke seals will normally be of the brush or bubble type and comply with the relevant British Standard.

The gap between the door and the frame should be as small as possible without restricting the door from closing.

Although it is possible to paint over some types of smoke seals they should not however be painted over as this can present difficulties when trying to identify the type of seal used.

6.3 Ironmongery

All fire resisting doors must be hung on three 100mm steel butt hinges.

All fire resisting doors must be capable of being opened from the inside without the use of a key. Locks that are fitted may be cylinder roller bolt or mortise locks with internal thumb turn. Five lever internal thumb turn mortise locks with latch and lever handles are recommended with respect to any security or insurance consideration.

The door stops must not be cut away to facilitate any lock or latch.

Voids around the locking mechanisms must be to a minimum and filled with intumescent paste or be encapsulated with a proprietary intumescent product.

Letter plates to individual letting should be discouraged as they rarely provide half hour fire integrity to a door. If a letter plate has to be fitted it must have an inner steel plate with a generous overlap. The letter plates must be higher than 800mm and not more than 1000mm above floor level.

6.4 Glazing

Fire glazing may be permitted in certain circumstances over fire doors. See Section 7.5

6.5 Self-Closing Devices

All fire doors shall be fitted with a proprietary automatic self closing device fitted to both the frame and door capable of closing the door into its keep in one operation.

Only overhead hydraulic closers are acceptable as they do not require additional ventilation in certain cases to allow the door to close properly and they prevent the door from slamming shut with the consequential hazard of trapping a child fingers and reduce impact noise. Both of these circumstances lead to fire doors being wedged open.

Rising butt hinges and spring devices are not acceptable on any fire door.

In some circumstances elderly and disabled people may have difficulties in opening fire doors fitted with a self closer. There are devices available which only become self closing when the fire detection system is activated. This sort of situation requires individual consideration and account should be taken of other fire safety features.

7.0 FIRE RESISTANCE

7.1 Floors

Where a comprehensive fire detection system is installed consisting of smoke and heat detectors in premises of 3 storeys and above or in a 2 storey with a fire detection system complying with BS 5839, floors affording half hour fire resistance will be adequate.

In 2 storey premises with a basement where there is no fire detection, a floor affording one hour fire resistance to the ground floor must be provided.

Where a fire resistant floor is required the floor shall afford the minimum fire resistance specified and be either:

- An existing floor construction which meets the criteria for the fire resistance required, or
- An existing floor construction which has been upgraded to meet the fire resistance required.

Where a floor is to be upgraded the existing construction must be established. Upgrading a floor may be achieved by applying alternative or additional ceiling protection or by applying additional or alternative protection from above.

7.2 Upgrading an existing floor to provide half hour fire resistance.

a) Additional Ceiling Protection

Where an existing floor comprises of (minimum 21mm) plain edge boarding or badly fitting tongued and grooved boarding on timber joists 44mm thick and where the existing ceiling construction is of timber lath and 16mm plaster, apply expanded metal lath or chicken wire nailed to joists separately to support existing ceiling plaster with 12.5 mm fire rated plasterboard nailed to joists with 40mm nails at 150mm centres. All cuts and ends to be supported on noggins.

b) Fixing to open joist ceilings

Where the joists are open and the existing floor comprises (minimum 15mm) tongued and grooved floor boarding on timber floor joists 44mm thick then apply a single board of 12.5 mm fire rated plasterboard nailed to joists with 40 mm nails at 150mm centres. All cuts and ends to be supported on noggins.

c) Additional Protection from above

Where existing floors comprise plain edge boarding or badly fitting tongue and grooved boarding on timber floor joists 38mm thick at 400mm centres and where the existing ceiling construction is in good condition and of timber lath and plaster then apply additional 3.2 mm minimum hardboard to the whole of the floor surface nailed to 150 mm centres in line with joists.

Where the existing floor comprises 25 mm boarding or 15 mm plywood or chipboard tongued and grooved, on timber floor joists 38 mm thick at 400 mm centres and where the existing ceiling construction is of 9.5 mm plasterboard with a gypsum finish, then apply not less than 60mm mineral fibre insulating material laid between joists and fixed to the joist sides. Nails should penetrate into the joist sides to a minimum of 20mm.

7.3 Upgrading an existing floor to provide one-hour fire resistance

a) Where direct fixing to joists can be achieved

Floors with open joists (38mm minimum) to receive a first layer of 12.5mm proprietary fire insulating boarding direct to joists with a second layer fixed with all joints staggered. All joints between boards and between the board edge and the wall are to be filled with plaster, scrimmed and skimmed to ensure resistance to the passage of fire.

Floors with open joists (50mm) to receive 2 layers of 12.5 mm plasterboard with staggered joints, scrimmed and skimmed to provide a minimum overall thickness of 30mm

b) Existing lath and plaster ceiling

Where the existing floor consists plain edged boarding or badly fitting tongue and grooved boarding on timber joists of a minimum width of 38mm and at a maximum of 400mm centres and where the existing ceiling is lath and 16mm plaster in good condition, apply additional 13mm lightweight aggregate gypsum plaster on a metal lath fixed at 10mm centres with galvanised clout head nails spaced away from the background by some suitable means, to give a 6mm gap.

Alternatively apply chicken wire to the ceiling with galvanised clout head nails, into joists. Batten off existing joists (minimum of 38mm x 25mm) to receive a first layer of 12.5 mm proprietary fire insulating board and a second layer of 12.5mm proprietary fire insulating board with all joints staggered.

It is recommended that service pipes and cables are not encased during upgrading as future maintenance or alteration to the services may disturb the integrity of the fire protection.

Due to the difficulties and labour involved in upgrading existing lath and plaster ceilings to one-hour fire resistance, most contractors remove the existing ceiling and double board.

c) Additional protection from above to give additional fire protection

Where existing floors comprise plain edged boarding with floor joists (38mm minimum width) at 400mm centres and where existing ceiling construction is lath and 16mm plaster then apply 4.8 mm (minimum) medium or high density hardboard or similar nailed at not more than 150mm centres in line with the joists. Prior to this

apply 25mm lightweight plaster trowelled between the joists in conjunction with expanded metal lathing or chicken wire turned up and nailed to the joist sides. Plastic sheeting can be applied beforehand to prevent staining to the ceiling below.

Where the existing floor consists of good tight fitting 21mm minimum tongue and grooved boarding on timber joists (38mm minimum) at 400mm centres with a lath and 16mm plaster ceiling, apply 25mm lightweight plaster as described above and renew any boards with defective tongues on relaying.

7.4 Walls and Partitioning

It is necessary that all fire-resisting walls are continuous between floor levels and are of the same fire resistance to any associated fire doors.

On unplastered walls all joints should be taped and filled using joint compound and any gaps between the walls and surrounding structures must be filled flush using joint compound.

Half hour fire resistance

- a) Brick or blockwork unplastered 100mm thickness (load bearing)
Brick or blockwork unplastered 75mm (non load bearing)
- b) Timber frames, non load bearing, 75mm x 50mm minimum with studs at minimum 600 centres faced on each side with 12.5 mm plasterboard, unplastered or, 12.5 mm fire rated plasterboard or, 12 mm proprietary fire resisting insulation board.

One hour Fire Resistance

- a) Brick or blockwork unplastered 100mm
- b) Timber frames, non load bearing, 75 mm x 50 mm minimum with studs at minimum 600 centres, faced on each side with two layers of 12.5 mm plasterboard, unplastered with staggered joints, or, two layers of 12.2 mm fire rated plasterboard with staggered joints
- c) Timber frame 100mm x 50 mm (non load bearing) studs at 600 mm centres with facing on each side 15mm fire rated fireboard.

7.5 Fire Resisting Glazing

Before any fire resisting glazing is installed it must be ensured that it complies with the Building Regulations Approved Document N, Glazing- materials and protection. Any fire resisting glazing installed in critical locations must be safety glass.

The design data of glazing in different frames are given below and are applicable to windows, glazed partitions and panels in doors.

Metal frames

All frame members should have a melting point in excess of 900° C. Where there are no beads or where metal beading is used the glass must be held in place by a fixing method, which has been shown by test to be satisfactory.

Wood Frames- 30 minutes Fire Resistance

A variety of methods are available for fixing glazing into wood frames, general points to be borne in mind are:

- frame members or dividing bars should be not less than 56mm deep and 44mm wide,
- frame members or dividing bars should have the rebate worked from solid material and a minimum depth of 15mm,
- wood beading should be hardwood and not less than 15mm wide,
- non combustible beads may be used providing that they do not melt or disintegrate at temperatures up to 900°C,
- the glass should sit on a setting block and an in tumescent strip placed between the glass and the bead.

Wood Frames – 1 Hour Fire Resistance

Specialist advice is required to upgrade a window opening to I hour fire resistance.

8.0 AUTOMATIC FIRE DETECTION INSTALLATION

HMOs statistically present a higher risk from fire than single occupied houses, with casualties often occurring in the room of origin of fire. Emphasis is placed on the interplay between passive and active measures, for this to be effective the design of the fire detection and alarm systems requires careful consideration.

Regard should be had to the rise and direction of spread of the fire plume when considering the spacing of sensors. A smoke detector will cover an area of radius 7.5 metres and a heat detector 5.3 metres.

Where the smoke detector is linked to the common parts detection system and is located within an internal lobby, the internal doors to the lobby should not have smoke seals.

If a fire detection and alarm system has been correctly designed and installed false alarms will be kept to a minimum. Only 2% of false alarms are due to equipment failure. Most false alarms are caused by the actions or omissions of the tenants in the premises. It is the responsibility of the user to ensure that appropriate steps are taken to reduce the number of false alarms from the system.

8.1 Two Storey HMOs

All HMOs up to 2 storeys shall be fitted with an automatic fire alarm system with detector heads complying with BS 5446. Part 1.

The system is of interlinked, mains wired, self-contained smoke and heat alarms limited to a maximum of 12 detectors, within each unit of accommodation.

Consideration should be given to the type of head to be installed to minimise the risk of false alarms.

All wiring may be surface wired and protected against mechanical damage by the fixing of trunking.

The minimum acceptable sound pressure level (audibility) at the bed head is 75 dB (A) and 65Db (A) or 5 dB (A) above the background level in the other rooms.

To achieve these levels it is probable that a sounder will have to be fitted in each bedroom.

There is merit in the power supply being off the normal domestic lighting circuit

The alarm shall give an audible fault warning if there is a failure in the power supply to the sensor or alarm.

All alarms should have a silencing facility which will allow the system to be silenced when in alarm mode. Once in the alarm silenced condition should another interconnected smoke/heat alarm go into the alarm condition, this shall trigger the silenced alarm and it shall operate as normal.

8.2 Three or More Storey HMOs

All HMOs of 3 or more storeys shall be fitted with an automatic fire detection system, category L2, which complies with BS 5839-1

Location

- Smoke detectors should be fitted at the highest point on a staircase and on all intervening landings leading to the ground floor.
- A suitable detector shall be positioned behind the door of a letting, which gives access to the common escape route. This is normally a heat detector.
- Further detectors may be necessary in high-risk areas of a letting.
- In unoccupied basements a heat detector may be necessary in each room/compartments as smoke detectors are vulnerable to dust and may cause false alarms.

Detectors

- Smoke detectors must comply with BS 5446 Part 1 and can be of the optical or ionisation type.
- Consideration should be given to the type of head used to minimise the risk of false alarms.
- Heat detectors should be provided where appropriate. Heat detection is required in all rooms where cooking takes place and consideration should also be given to fitting in boiler rooms.

Sounders

- At the bed head within rooms in which the fire alarm system is intended to awaken people from sleep the sound pressure level must not be less than 75dB (A).
- At no time shall the sound pressure level exceed 120dB (A) in any accessible area.

Indication Panel

- The indication panel must comply with BS 5839, Part 4 and be sited within the ground floor hallway.
- The panel must be provided with a visual and audible warning of any fault in the system.

Manual Alarm Activation Point (Call Point)

- Call points shall be of the “break glass type” and be located on all floors and close to the indication panel and adjacent to all exits.
- Where a window has been designated, as an escape window to overcome any “Bad Arrangement” a call point must also be sited adjacent to the window in addition to those described above.

Power Supply

- The power supply to the fire detection system shall be from the normal mains supply with a standby supply capable of maintaining the system in full operation for at least 24 hours after which sufficient capacity must remain to provide an evacuation alarm for at least 30 minutes.

Wiring

- All wiring shall be in accordance with BS 5839-1 and installed by a competent person.

Maintenance

- The installation shall be inspected and tested in accordance with BS 5839-1 by a competent person.
- A logbook shall be completed containing details of the installation inspections and retained for examination by an enforcing officer.
- A single person should be appointed as the named responsible person to ensure that the installation is maintained in full working order.
- Where necessary visual alarm signals should supplement audible signals and used where people with impaired hearing live.

Certification

- On completion of design, installation and commissioning a separate certificate must be issued for each of these three processes, confirming compliance with the recommendations as set out in BS 5839-1.
- The certificates must only be signed by a competent person.

8.3 General Provisions

There shall be continuity of supply to the fire detection and emergency lighting systems together with the lighting circuits to the communal areas. **Pre-payment electricity meters of whatever kind serving these installations are unacceptable.**

A major principle of room layout is that escape must not involve travel from a lower risk room through a higher risk room.

Cooking facilities shall be safely situated and should not be located immediately adjacent to room exits.

9.0 EMERGENCY LIGHTING

9.1 One and Two Story HMOs

- Emergency lighting should be provided if the escape route is complex or lengthy. Where it is provided then it shall conform to 9.2 below

9.2 Three and Four Storey HMOs

- Emergency lighting must be provided throughout the escape route and in communal rooms.
- Emergency lighting must be installed and maintained to comply with BS 5266 Parts 1 and 7, Code of Practice and BS EN 1838 for the Emergency Lighting of Premises.
- The number and positioning of luminaries will be dependant on the layout of the premises but it must not only indicate clearly the exit route it should also highlight any hazards such as staircases, changes in floor level or changes of direction.
- The horizontal luminance at floor level along the escape route must not be less than 0.2 lux.
- The wiring to the system must be in accordance to the current IEE Regulations.
- There are several different emergency lighting systems available. However, a maintained, self contained system, which provides lighting for a minimum of one hour, will be acceptable.

Examples of Room Layouts and Detector/Alarm Locations

Diagram A - Indicates a 2 room letting with no lobby

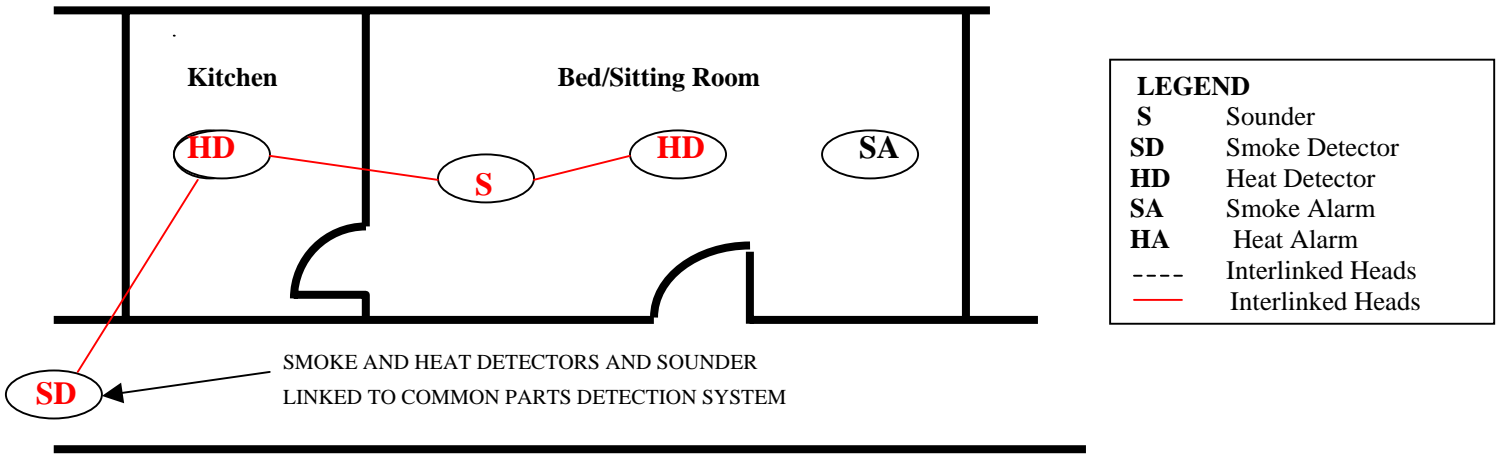


Diagram B – Indicates a 2 room letting with lobby

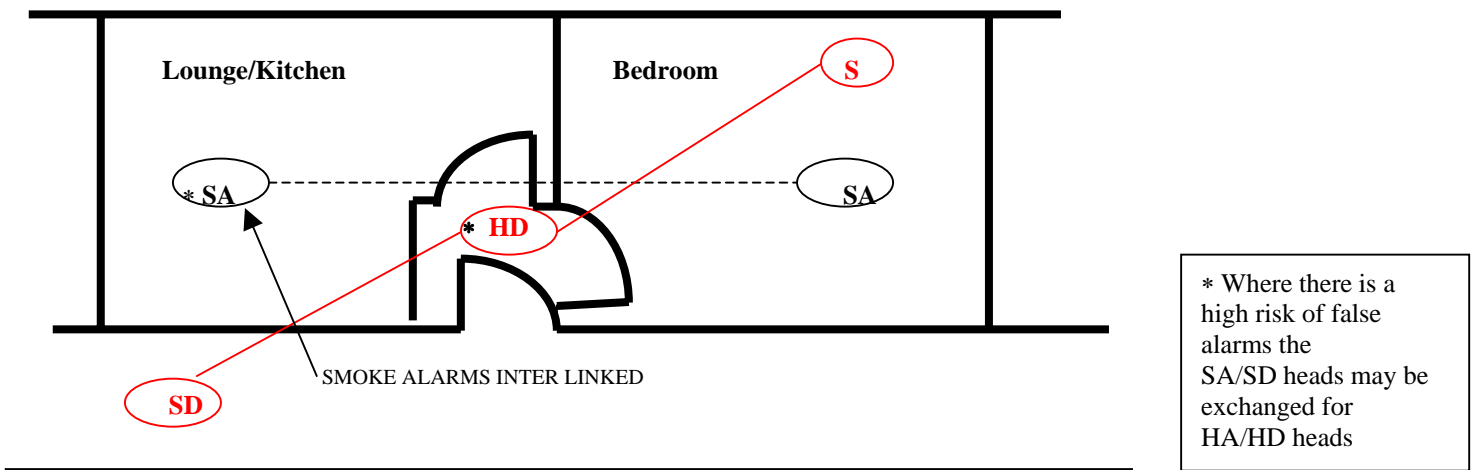
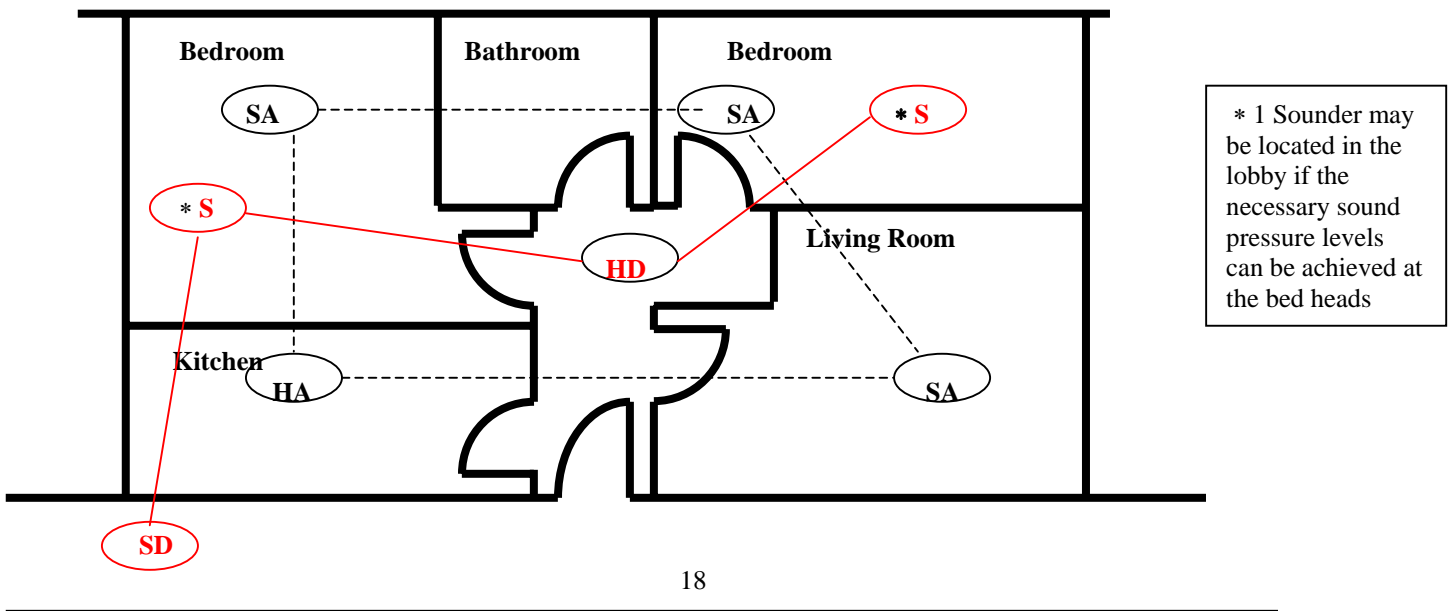


Diagram C – Indicates a 3 room letting with lobby



10.0 FIRE FIGHTING EQUIPMENT

Fire fighting equipment shall be provided in all HMOs.

The provision shall be:

- Multi-risk fire extinguishers of a total minimum rating 13A/55B situated on each floor level and in each communal kitchen.
- A fire blanket in each room used for cooking.

It is important that fire-fighting equipment remains in good order and maintained in accordance with manufacturers instructions.

All equipment must have adequate instruction for use.

Fire extinguishers must conform to BS EN3 and be maintained as outlined BS 5306; Part 3. Fire blankets must comply with BS EN 1869.

Although fire-fighting equipment must be provided all residents should be advised that they should only be utilised for extinguishing small fires and should only be operated by persons competent in their use. The general advice to residents should be to “get out, stay out and call the fire services out.”

11.0 NOTICES SIGNS AND INFORMATION

All fire safety signs, notices and graphic symbols should conform to BS 5499: Fire Safety Signs

Fire door signs need not be displayed on the entrance doors to each occupied room in a hostel or on the doors to or within self-contained units.

