



FIRE & RESCUE SERVICE



Bedford Borough Council

**A Guide to Fire Safety Standards
Within Multi- Occupied Residential Properties**

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Bedford Borough Council

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Where can I get more information?

The Private Sector Housing team at Bedford Borough Council will be pleased to receive your enquiry about any aspect of fire safety in rented property..

The Bedford Borough Council website contains more information about rented property, including housing advice, empty homes, housing strategy, homelessness and grants and loans. The address is <http://www.bedford.gov.uk> click "Housing" in the left hand menu.

Environmental Health
Private Sector Housing
Town Hall
Bedford
MK40 1SJ

01234 221763 (HMO hotline)
01234 227257 (Housing enquiries and complaints)
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Introduction

The Housing Act 2004 places new emphasis on Local Housing Authorities to risk assess and bring about improvements in the housing stock through the HHSRS (Housing Health and Safety Rating System). HHSRS comprises 29 categories of "hazard" that may cause harm in the home, ranging from cold and damp, which are familiar problems; through to hazards such as asbestos and radiation, health risks that are to be included for the first time in an assessment of housing deficiencies. Registered Social Landlords are exempt from certain parts of the Housing Act 2004 enforcement regime, but not Part 1, which applies across all tenures.

Fire safety is one of the risk categories which must now be included in any assessment, regardless of tenure. However, enforcement action to improve fire safety is only likely where there is a significant risk to the occupiers. The greatest risks are to be found in multi-occupied properties where there are 3 or more storeys. This may include houses that are converted into flats, hostels, managed or sheltered accommodation, purpose built multi-storey buildings and flats above shops. The risk rises with increased occupancy, multiple ignition sources (cookers, heaters, fires, smoking), vulnerable occupants, poor construction and lack of fire prevention measures. Analysis of national fire statistics have concluded that you are six times more likely to die in a fire if you live in any house in multiple occupation (HMO), compared with a single family house. The risk increases to sixteen times more at risk of fatal injury if you live in an HMO which is 3 or more storeys high.

These standards aim to recommend fire safety solutions that are effective, practicable and appropriate for the existing local stock and the likely occupants. HHSRS and the enforcement options available in the Housing Act 2004 emphasise the requirement to take into account the vulnerable group for a particular hazard when assessing the risk category and solutions should do likewise, but may also take other factors into account. For fire safety assessment purposes, the vulnerable group is considered to be the over 60's, because of mobility problems and the potential for pre-existing health conditions that may be adversely affected by smoke and fire. Vulnerable individuals with mental health needs, substance dependency or disabilities may require special provisions that should be built into proposed schemes of work.

These standards apply to both traditional HMOs and purpose built high, medium and low rise buildings as well as converted buildings and single houses, so that the guidance is appropriate for use across the whole spectrum of residential dwelling houses that may require fire safety solutions. The escape standard is a night time standard, so the fire precautions and detection solutions are designed with this in mind.

Legislative background

The main powers for local Councils are derived from the Housing Act 2004, Part 1 which confer on Local Housing Authorities extensive duties and powers to remedy hazards within residential property. Councils work together with local fire and rescue services which enforce fire safety legislation.

The Regulatory Reform (Fire Safety) Order 2005, replaces the two major pieces of fire safety legislation, the Fire Precautions Act 1971 and the Fire Precautions (Workplace) Regulations 1997 as amended. The Order consolidates the fire safety provisions of other legislation under one simplified set of goal based requirements. Risk assessment will be used as the basis for compliance and the responsible person on the premises is held liable in the case of any breach.

What is a HMO and why is fire safety important?

Definition of an HMO:

“House in Multiple Occupation” means a building, or part of a building (e.g. a flat):

- which is occupied by more than one household who share an amenity (or the building lacks an amenity) such as a bathroom, toilet or cooking facilities; or,
- which comprises of converted self contained flats and the standards of conversion does not meet the 1991 Building regulations and at least one third of the flats are occupied under short tenancies; or,
- A combination of these

And is “occupied” by more than one household as their only or main residence, or:

- as a refuge by persons escaping domestic violence, or,
- during term time by students, or,
- for some other purpose that is prescribed in regulations

And the households comprise:

- families (including single persons and co-habiting couples (whether or not of the opposite sex), or,
- any other relationship that may be prescribed by regulations, such as domestic staff, or fostering, or carer arrangements.

Why is fire safety important?

HMO accommodation has often been created by sub division of larger properties into smaller units and this often increases the risks that a fire will occur. In addition, the means of escape may have been compromised in the process of redevelopment making it less likely that occupants will get out of the building safely should a fire occur. Death and injury from fires in HMOs are more likely than in single family homes.

The main reasons for insisting on fire precautions in Houses in Multiple Occupation (HMOs) is to provide early warning, and to stop the smoke and fire spreading to parts of the property before other residents have the chance to escape.

Alternatives to these standards will be considered if they provide a sufficient level of protection to residents. It may be necessary to undertake a fire risk assessment to demonstrate this. The Council and the Fire Service must agree to any alternative solutions. An example of alternative fire safety precautions is installation of a sprinkler system (details in section 1).

The most important action a property manager can take is to try and prevent fires. Whilst the advice given in this guide is mainly concerned with methods of warning residents of a fire and preventing the spread of the fire to enable them to escape; fire precaution measures can never guarantee absolute safety for residents, or prevent extensive property damage.



Section 1

General Fire Resistance Standards

Definitions and Specification:

1.1 Definition of minimum standard	This standard sets out the minimum level of protection throughout the building, (buildings are grouped together according to construction and risk) and focuses on entering a "protected staircase" down which occupants would exit the premises in the event of fire. The minimum standard would be required for all premises. The "protected staircase" replaces the requirement for an alternative or secondary escape route.
Protected staircase	Where acceptable secondary escape staircases exist, each will be assessed on its merits, but generally, removal will not be required unless there is a safety deficiency in the secondary escape.

Fire resisting	<p>The term "fire resisting" means walls, screens, partitions, doors, glazing and any other construction which, when tested in accordance with relevant British Standard or equivalent European Standard, achieves a minimum half hour standard of fire resistance. All such doors should be positively self closing onto suitable rebates and fitted with approved smoke seals and intumescent strips. Rising butt hinges are not considered suitable as self closing devices and only hydraulically operated self closing devices, designed for the purpose, should be used. It is recommended that dual action self closing devices that close quickly but latch slowly are the most suitable devices for fire doors and are the most "user friendly".</p> <p>Any cupboard doors, such as those to service cupboards or store rooms which are required under these standards to be fire resisting, need not be self closing provided that they are kept locked shut at all times and a suitable KEEP LOCKED SHUT notice is affixed to the door.</p>
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1.2 Fire resisting walls	The minimum standard of fire protection is 30 minutes, in the case of walls this could consist of 72 x 37mm softwood timber studs at 600mm centres and faced with 12.5 mm of plasterboard with joints taped and filled. 30 minute fire doors are usually bought off the shelf and constructed in accordance with BS 8214 and conform to BS 476.
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Section 1 – General Fire Resistance Standards

<p>1.3 Fire Resist- ance of floors</p>	<p>A fire resisting floor will depend upon floor construction and ceiling finish, however 30 minutes protection can be achieved by using tongue and groove softwood of not less than 15mm thickness on 37mm timber joists, with a ceiling below of one layer of plasterboard to a thickness of 12.5mm with joints taped and filled and backed by supporting timber.</p>
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<p>1.4 Fire resisting glazing</p>	<p>Where glazing is required in a fire resisting structure, it must afford the same level of resistance. The most common type of glazing is 6mm Georgian wired glazing, alternatively clear glazing can be used it is far more expensive and much be etched with the approved mark to confirm its fire resistance. If no marking is provided then some other form of conformation will be required.</p> <p>Installation of the glazing is critical as it should be fitted in a proven intumescent glazing system incorporating glued and screwed beading</p>
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<p>1.5 One hour fire protect- ion</p>	<p>This is generally referred to as lobby/double door protection, and can be achieved by the provision of a 30 min fire door on the stairs which leads into a lobby or corridor with 30 min fire rated doors on the individual units of accommodation. The 2 doors and 2 sets of studwork give an effective one hour protection of the staircase from the risk rooms. Ceilings should also provide one hour protection. This level of separation is also prescribed for basement ceilings and between shops/offices and residential accommodation.</p>
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<p>1.6 Sprinkler systems</p> <p>Sprinkler systems</p>	<p>Design Freedoms: Residential Sprinklers</p> <p>The publication of the British Standard (BS 9251:2005) has seen the introduction of residential sprinkler systems to the UK. These systems are designed to mitigate and protect occupants and buildings against the effects of fire. A sprinkler system will detect, give warning, control, contain or even extinguish a fire.</p> <p>The provision of a sprinkler system can mitigate the need for certain fire safety measures, examples include:</p> <ul style="list-style-type: none"> • Reduced fire resistance of doors • Increase in travel distance by 25% • Reduced coverage and standard for Automatic Fire Detection • Eliminates need for intumescent strips
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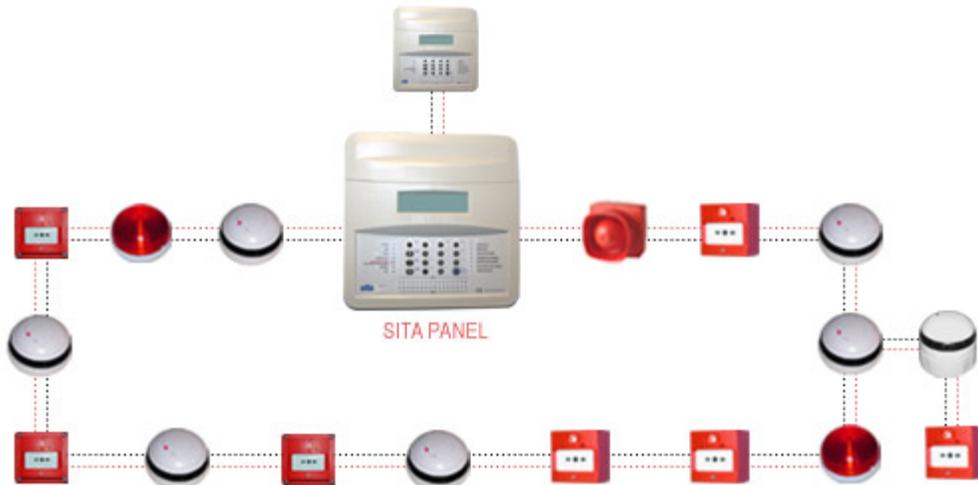
Section 1 – General Fire Resisting Standards

cont.

All proposed installations of residential sprinkler systems must be made subject of the approved procedure by the enforcing authority and fire authority. This will determine the appropriate standards to satisfy the fire safety measures applicable for the specific premises or building, taking into account the following: -

- The layout of the premises or building.
- The number & nature of occupants.
- The condition of the premises or building.
- The standard of management or landlord control of the premises or building.

Consideration should also be given to the Approved Document issued to support the Building Regulations and any other relevant standards.



Fire alarm system for larger premises

Section 2

Purpose Built: High, Medium and Low Rise Accommodation

This section details the specific fire protection works that are considered appropriate for the majority of accommodation in this category. Typical examples are:

- General needs accommodation, no special needs or vulnerable groups;
- Purpose built, designed to be non combustible construction;
- High rise (6+ storeys) blocks with one or more stairways and lifts;
- Medium rise (4+ storeys) blocks with one or more stairways and lifts;
- Low rise (up to 3 storeys) one or more stairways, with/without lifts;

This category deals only with fully self contained units.

2.1 Fire resistance standards	All dedicated escape routes will consist of a protected route providing a minimum of 30 minutes fire resistance; this includes any screens and or doors forming the staircase enclosure. Entrance doors to the flats within a protected route will afford the same standard of resistance. This package provides 1 hour fire resistance between each unit and the escape staircase but does not include any fire resistance within the individual flats. Standards of resistance should be as detailed above.
Flat entrance doors	Flat entrance doors are often changed when flats are sold. As such it is vitally important that the doors maintain the specified level of fire resistance and that any alterations made to the doors must not materially affect this level of resistance.
Internal Layout	The layout of the internal flats can vary and is often poor with the kitchen located in such a position that it would have to be passed to exit the flat in the event of a fire. Inadequate fire resisting glazing and wedged open fire doors to the kitchen cause concern for safe evacuation of individual tenants. The provision of Automatic Fire Detection will significantly improve the situation (see standard below). Future consideration especially, when renovation work is planned, should be given to the internal design of flats.
Balconies	Where flats have the provision of a balcony escape as an alternative, access doors should be locked without the use of a key (e.g. thumb turn). Doors that are not in practical locations should be assessed on an individual basis with consideration being given to security.

<p>2.2 Chutes and ducts</p>	<p>Consideration should be given to ensuring that and any ducts and bin chutes are appropriately fire stopped. Especially within high rise buildings there can be hidden ducting (e.g. interlinked extractor fan ducting from bathrooms, services in communal areas), these need to be checked and maintained on a regular basis.</p> <p>Bin chutes can be prone to vandalism and well as wear and tear of the seals on the chute hatches. An inspection and maintenance program should be put in place to identify and rectify and problems.</p>
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<p>2.3 Fire alarm standards</p> <p>Circulation areas</p> <p>Individual flats</p>	<p><i>(See Appendix A for definitions)</i></p> <p>In the event of a fire, staircases are likely to be commandeered by the fire service for fire fighting purposes. With the standards of fire resistance detailed above, a stay put policy for the occupiers not in the affected flat should be adopted. In order for this to work, there is little benefit in providing Automatic Fire Detection in the common areas. However, existing systems not be stripped out without prior agreement of Fire Safety Manager.</p> <p>Mains operated smoke and heat alarms, to BS 5839 Part 6, Grade D, to be fitted in individual flats, depending on layout, with remote hush and test facility. Detectors to be interlinked to overcome poor layout and additional risks within flats.</p> <p>System depends on the structural fire precautions and occupiers or their neighbours taking action in the event of a genuine fire alarm in a flat.</p>
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<p>Bin rooms</p> <p>Detection</p> <p>Sprinklers</p>	<p>It is recommended that all bin rooms are provided with Automatic Fire Detection conforming to BS 5839 Pt 1, Category L5. Each system should be connected to an Alarm Receiving Centre to ensure the fire service is called when the alarm is activated.</p> <p>Consideration should be given to the provision of a specific Sprinkler system for any bin room that is prone to regular arson attacks which subsequently causes smoke logging of the circulation areas for the flats. Further information can be obtained for the local Fire and Rescue Service.</p>
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<p>2.4 Emergency lighting</p>	<p><i>(see appendix A for definitions)</i></p> <p>Emergency Lighting to BS 5266 Pt 1 may be required in circulation areas if the amount of borrowed light provided by street lighting is insufficient.</p>
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	It is recommended that the Emergency Lighting system is tested on a monthly basis with a record of the test maintained.
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2.5 Dry rising mains	<p>A maintenance programme should be put in place for all dry risers in high rise flats. British Standard 5306: Part 0 covers the servicing and maintenance of dry risers and recommends that any dry rising mains are checked every 6 months to ensure the valves are fully serviceable. A wet pressure test should be undertaken annually to ensure there is no leakage.</p> <p>Worthy of note is that this will become a requirement upon the introduction of the Regulatory Reform (Fire Safety) Order 2005.</p>
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2.6 Fire fighting equipment	<p>Considering the design of the buildings (sterile staircases, no usable "common areas" off the staircases, no carpets or any fire loading) and the limited interaction between residents, then the provision of fire fighting media in the common areas is not considered appropriate.</p> <p>Note that any specific workplaces, e.g. office will require fire fighting equipment under the current fire safety legislation.</p> <p>Fire fighting equipment for individual flats is the responsibility of the occupier, the provision of a fire blanket is recommended.</p>
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2.7 Evacuation procedure	Evacuation of the individual affected flat with a stay put policy for the other occupants in all high, medium and low rise blocks. Managed evacuation by Fire Service will be undertaken as necessary.
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2.8 Managing fire safety	<p>Every tenant must be informed about the action to be taken in the event of fire. This information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy of the Fire Escape Procedure should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions.</p>
Routine Checks	<p>Routine checks of fire safety standards in the common areas should be established (in addition to those relating to the Fire Alarm System). Employees responsible for undertaking the checks should be trained so that they can identify problems and are provided with a clear and effective mechanism that</p>

	allows rectification of the problems quickly. E.g. breaches of fire resistance, combustibles in staircase enclosures, Fire Service access and operation of dry risers.
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Section 3

Section 3 - Purpose Built: Hostel and Sheltered Accommodation

This section details the specific fire protection works that are considered appropriate for the majority of accommodation in this category. Typical examples are:

- Blocks of self contained flats with resident or non resident warden;
- Sheltered accommodation where there are communal areas and resident wardens/staff;
- Very sheltered accommodation with frail residents and resident staff;
- Buildings to be purpose-built of non combustible materials or to current Building Regulations Standards.

<p>3.1 Fire resistance</p>	<p>Multi storey accommodation usually serviced by a minimum of two staircases with protected lobbies and 30 minute fire doors on flats. Doors onto the main staircases/corridors should afford a fire resistance of 30 minutes. Where there is a requirement, due to occupancy type, for fire doors to be held open on the escape routes, then the use of an approved automatic release mechanism activated by the fire alarm system can be provided (advice from the Fire Authority should be sort prior to installation). Such devices must be checked for operation in conjunction with the weekly fire alarm tests</p>
<p>3.2 Fire alarm standards</p> <p>Communal areas</p> <p>Routine tests</p>	<p><i>(see appendix A for definitions)</i></p> <p>There is a subtle difference between purpose built blocks of flats and hostel / sheltered accommodation in terms of occupancy and fire loading in common areas, as such a higher standard of detection is required.</p> <p>Automatic Fire Detection to BS 5839 Pt 1, Category M / L4 should be provided, this incorporates manual call points and fire detection in the circulation spaces e.g. corridors, staircases as well as any communal rooms that lead directly off a corridor. Rooms that are likely to produce false alarms should be fitted with heat detection e.g. communal kitchens, laundry rooms. The alarm should be connected to an Alarm Receiving Centre (ARC).</p> <p>Fire Alarm systems in common areas that confirm to BS 5839 Pt 1 and incorporate break glass call points and /or automatic doors closers should be checked on a weekly basis. A different call point can be used for each successive test. The duration of a test need only be sufficient to check that the system operators satisfactory. Any defects must receive immediate attention and the record of the tests maintained.</p>

Section 3 - Purpose Built: Hostel / Sheltered Accommodation

<p>Individual flats</p>	<p>Independent Automatic Fire Detection within each accommodation unit should be provided and consist of a minimum provision of a single point optical smoke detector/sounder conforming to BS 5839 Pt 6, Type LD3, Category D (mains operated with rechargeable battery back up). A remote hush / test switch located at a convenient height would enhance residents' testing regime as well as reducing false alarms.</p>
<p>Disabled occupants or visual/hearing impaired</p>	<p>An assessment of the occupancy should be undertaken on an individual basis to ensure the standards detailed in the British Standard can be met for example, sound levels of 75 db at the bed head (with doors shut) should be achieved. Additional measures to compensate for particular disabilities should also be considered such as vibrating cushions, strobes as well as any specific need that warrants connection of the alarm to a care call system should the occupier have difficulties in responding to the local alarm.</p>
<p>Maintenance of detectors</p>	<p>A maintenance programme incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with the Alarm Engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or preferably replaced on change of tenure.</p>

<p>3.3 Emergency lighting</p>	<p><i>(see appendix A for definitions)</i></p> <p>An Emergency Lighting system conforming to BS 5266 Pt 1 should be provided illuminating stairways, corridors, and other exit routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply.</p> <p>The system should be non maintained with a duration period of 2 hours (standard NM/2). It is recommended that the Emergency Lighting system is tested on a monthly basis with a record of the test maintained.</p>
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<p>3.4 Signs and notices</p>	<p>Fire doors other than entrances to the individual flats should be clearly marked "Fire Door Keep Shut". Those that are required to be locked should be clearly marked "Fire Door Keep Locked". Clearly visible EXIT signs should be provided to indicate escape routes from the building. All signs should conform to BS 5499 Pt1 or equivalent European Standard.</p>
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Section 3 - Purpose Built: Hostel / Sheltered Accommodation

<p>3.5 Fire fighting equipment</p>	<p>The nature of the premises is such that they can be classified as a place of work with or without a 24 hr warden (especially under the Regulatory Reform (Fire Safety) Order which became law in the Autumn of 2006) therefore the provision of fire fighting equipment is required.</p> <p>The Fire Service recognise the potential problems with hose reels, (e.g. mode of operation, obstruction of fire doors etc) as such it is acceptable to replace hose reels with a suitable and sufficient number of portable fire extinguishers.</p> <p>The following guidance should be used to determine minimum levels required.</p>
<p>Water extinguish- ers (13A rating)</p>	<p>Minimum one per floor or one for every 200 square metres and no more than 30 metres apart. Additional extinguishers may be required in specific risk areas e.g. offices although careful consideration of the general location can help reduce the number required.</p>
<p>Carbon Dioxide extinguish- ers (21B Rating)</p>	<p>Located where there is a specific electrical risk e.g. laundry room, kitchen. Note that one carbon dioxide extinguisher can cover more than one room if located appropriately.</p>
<p>Fire blanket (min size 1 sqm)</p>	<p>The provision of a Fire Blanket conforming to BS 6575 (or equivalent) should be provided in each kitchen mounted on a the wall 1.5m high adjacent to an exit door away from the cooking facility.</p>
<p>Mainten- ance of fire fighting equipment</p>	<p>All fire fighting equipment should conform to BS EN 3 and BS 7863. Arrangements should be made for the extinguishers to be inspected once a year in accordance with the current BS 5306 Pt 3 or European Standard by a competent person qualified under British Approvals For Fire Equipment (BAFE) – National Approvals Scheme for the servicing of Fire Equipment, or an equivalent accredited third party conformance standards. Record of tests should be maintained for future inspection.</p>
<p>3.6 Staff training</p>	<p>Where fire fighting equipment is provided, any staff who may have cause to use it should be trained in its use.</p>

Section 3 - Purpose Built: Hostel / Sheltered Accommodation

3.7 Evacuation Procedure	Evacuation of an individual affected flat with a stay put policy for the other occupants would be appropriate. Managed evacuation by Fire Service personnel will be undertaken as necessary.
3.8 Managing fire safety Routine checks	<p>Every tenant must be informed about the action to be taken in the event of fire. This information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy of the Fire Escape Procedure should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions.</p> <p>Routine checks of fire safety standards in the common areas should be established (in addition to those relating to the fire alarm system, emergency lighting and fire fighting equipment). Employees responsible for undertaking the checks should be trained so that they can identify problems and are provided with a clear and effective mechanism that allows rectification of the problems quickly. E.g. breaches of fire resistance, combustibles in staircase enclosures, Fire Service access and operation of dry risers.</p>
3.9 Fire risk assessment	Warden controlled premises will require a fire risk assessment to be carried out in accordance with current fire safety legislation. If 5 or more people are employed then the assessment should be written down.



Alarms for the hearing impaired

Section 4

Houses Converted into Self Contained Flats

This section details the specific fire protection works that are considered appropriate for the majority of accommodation in this category. Typical examples are:

- Large 3+ storey properties converted into self contained flats;
- Large 2 storey properties converted into self contained flats;
- Mixtures of flats/maisonettes;
- Some properties will have new build extensions/additions;
- Mixture of tenures, long leases and owner occupied, leased and sublet on short tenancies, registered social landlord stock;
- Mixture of fire separation standards depending on the age of conversion.

In general, on conversion, these premises would have been will be provided with a minimum structural fire protection of 30 minutes providing 60 minutes between flats (with each flat door giving 30 minute fire protection) and 30 minutes between lettings and the protected staircase. With little management control of the internal layout of flats and the likelihood that fire doors may have been removed or are propped open, the fire alarm and detection system will become a design feature that should compensate for this potential problem.

4.1 Fire Resist- ance Standards	<p>Structural fire protection should be a minimum 30 minutes for all elements. The doors to each flat in a converted building must maintain 30 minutes fire resistance. In practice these doors will remain firmly shut at night for security, so self closers are not necessary, however, smoke seals and intumescent strips should be incorporated. 25mm door stops can be effective smoke and fire stops so should be retained. Any holes, gaps or damage to fire doors must be effectively repaired.</p> <p>Where the property has a mixed tenure with some units in owner occupation/leasehold and some units tenanted it is vital that the front flat entrance doors are maintained as 30 minute fire resisting doors, as above. For social landlords, retention of the ownership of such doors allows control over this potential problem.</p> <p>All glazing that forms part of the escape route should be 30 minutes fire resisting.</p> <p>Cellars/basements should be separated by 60 minutes fire resistance and the doors should be either self closing or kept locked shut. The staircase should be under drawn to afford the same level of resistance.</p>
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Section 4 - Houses Converted into Self Contained Flats

4.1 Cont	<p>If access to the basement is required on a regular basis (e.g. electric pay meter in basement) then the fire resisting door must be self closing.</p> <p>Cupboards in the escape route should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked.</p> <p>Electric meters in the escape route should be enclosed in a fire resisting cupboard, preferably top hung, so as to be self closing.</p> <p>No storage of any kind should be permitted in the escape route.</p> <p>Where properties have external escape stairs, they should have suitable weather protection and be properly maintained with at least an annual check programmed to ensure they remain in good condition.</p> <p>All final exit doors (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key.</p>
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4.2 Fire Alarm Standards	<p><i>(see appendix A for definitions)</i></p> <p>A fire alarm system conforming to BS 5839 Part 6, Grade D, category LD 2, comprising optical smoke detectors on each landing level of the staircase, plus a single point heat detector in the circulation space of each flat, should be provided.</p> <p>An additional single point optical smoke detector conforming to BS 5839 Part 6, Grade D, category LD 3, should be provided in the circulation space of each flat. This will allow for occupants to silence false alarms without disturbing other residents, but in the event of a more serious fire or if the flat is empty at the time, the heat detector will activate and sound throughout the building for an evacuation to take place.</p> <p>Poor layout within the flat where an occupant has to pass through a risk room to exit to safety should be resolved using appropriate additional detection in the flat, interlinked with the proposed LD3 system in the flat itself. The system should remain separate from the alarm system in the communal areas.</p> <p>Occupants with disabilities should be provided with appropriate specialist features such as vibrating pillows or</p>
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	strobe lights etc.
Section 4 - Houses Converted into Self Contained Flats	
4.2 Cont	<p>especially where rooms have high ceilings.</p> <p>The method of interlinking using "Radio link" may be considered where interlinking is required to existing systems but the additional wiring is not installed. Note however that the battery life of a Radio Link unit is 5 years so a replacement program must be put in place to ensure the system continues to operation satisfactorily.</p> <p>A maintenance programme incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with the Alarm Engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or preferably replaced on change of tenure.</p>
Existing Automatic Fire Detection Systems.	Existing panel controlled Automatic Fire Detection systems conforming to BS 5389 Pt 1 in premises where a BS 5839 Pt 6 system is recommended and which remain operable need not be replaced, however if there are problems with vandalism and false alarms then replacement should be considered. Long term, a replacement programme should be planned.
4.3 Emergency Lighting	<p><i>(see appendix A for definitions)</i></p> <p>A converted house may need emergency lighting to be provided in the escape staircase. This will depend upon the amount of borrowed light from outside, the proximity of streetlights and the staircase layout. However the likelihood is that the actual conversion into flats impede natural or street light getting into the staircase, so this must be considered.</p> <p>Where emergency lighting is required it should conform to BS 5266 Pt 1 and illuminate stairways, corridors, and other exit routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply.</p> <p>The system should be non maintained with a duration period of 2 hours (standard NM/2).</p>
4.4 Evacuation Procedure	<p>Full evacuation of the premises should be undertaken upon actuation of the principle fire alarm system.</p> <p>Every tenant must be informed about the action to be taken in the event of fire and designate responsibility for calling the</p>

	Fire Service.
Section 4 - Houses Converted into Self Contained Flats	
4.4 Cont	Information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy of the Fire Escape Procedure should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions.
4.5 Fire Fighting equipment	The provision of a Fire Blanket conforming to BS 6575 (or equivalent) should be provided in each kitchen mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.



Smoke detection equipment

Section 5

Single Dwellings

Structural fire resistance not generally required in dwellings of single occupancy.

5.1 Fire Alarm Systems	<p><i>(see appendix A for definitions)</i></p> <p>BS 5839 Part 6, Grade D category LD3 mains operated detector/sounder, either optical smoke or ionisation, dependant on siting the detector away from kitchens/cooking equipment, to be installed in the ground floor level of the staircase as a minimum requirement. Additional detection would be required within the circulation spaces on each floor should the premises consist of two or more floors.</p> <p>A maintenance programme incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with the Alarm Engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or preferably replaced on change of tenure.</p>
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Low voltage smoke alarms for single dwellings

Section 6

Houses in Multiple Occupation (HMOs) 3 storey and above (or complex 2 storey*)

Introduction

HMO accommodation provides housing for those individuals who are on the bottom rung of the housing ladder, it is traditionally low cost and flexible, but has a reputation for poor standards and management, which is not always borne out in practice. Examples are:

- Traditional bedsits with shared facilities;
- Hostels, with or without full time supervision;
- Bed and breakfast establishments for residents who have no other home;
- Houses where there is no sharing of facilities, but lettings are not self contained;
- Self contained flats that do not meet current Building Regulations and more than 1/3 are let out;
- Students sharing, but, living as a group;
- Professional sharers who live as a group;
- Rooms let out with a residential landlord;

*Large, complex 2 storey HMOs with long travel distances from any bedroom to the final exit, unusual or complex layouts shall be considered to fall into this category for the purposes of deciding the level of fire precautions to be required.

HMOs of 3 storeys and above with 5 or more residents require a licence to operate. Fire safety is separate from HMO licensing and will be dealt with using the Housing Health and Safety Rating System (HHSRS) as detailed earlier in this guide. HHSRS will apply regardless of licence or number of storeys or lettings.

Each HMO will be assessed according to the Housing Act 2004 hazard rating system. A determination of risk will result in a category 1 or 2 hazard or below. Action to either prohibit, improve or inform will be determined by the category of hazard, the Council's enforcement policy and the judgement of the inspecting officer.

6.1 Standards of	All dedicated escape routes will consist of a protected staircase providing a minimum of 30 minutes fire resistance, this will provide all lettings access to a place of safety.
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Fire Resistance:	Compartmentalisation of parts of the premises may be required to a standard of one hour fire resistance to allow for
Section 6 – 3 storey Houses in Multiple Occupation (HMOs)	
6.2 Fire Alarm Standards	<p>Installation of an automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade A, LD2. Modifications may be considered appropriate. These could include repeater panels, anti vandal devices, use of radio interlinking as permitted by the British Standard but will depend upon occupancy type and assessed fire risk. Where there is a mixture of residential and commercial then modifications to the system may include, mixing Part 1 and Part 6 systems. Post 1991 dwellings operating as HMOs with mains interlinked detectors installed will generally be permitted to extend the existing system. Risk assessment applies in all cases.</p> <p>In the case of non-complying self contained flats, the option is also to require works of compartmentalisation and fire detection to bring building up to current Building Regulations standard, with additional works deemed necessary depending on hazard rating and risk category.</p>
6.3 Emergency Lighting	<p><i>(see appendix A for definitions)</i></p> <p>A converted house may need emergency lighting in the escape staircase. This will depend upon the amount of borrowed light from outside, the proximity of streetlights and the staircase layout.</p> <p>Where emergency lighting is required it should conform to BS 5266 Pt 1 and illuminate stairways, corridors, and other exit routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply.</p> <p>The system should be non maintained with a duration period of 2 hours (standard NM/2).</p>
6.4 Evacuation Procedure	<p>Full evacuation of the premises should be undertaken upon actuation of the principle fire alarm system.</p> <p>Every tenant must be informed about the action to be taken in the event of fire and designate responsibility for calling the Fire Service.</p> <p>Information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy</p>

	of the Fire Escape Procedure should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to
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Section 6 – 3 storey Houses in Multiple Occupation (HMOs)

6.5 Fire Fighting equipment	The provision of a Fire Blanket conforming to BS 6575 (or equivalent) should be provided in each kitchen mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
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6.6 Maintenance and Management	<p>All fire detection and emergency lighting systems require maintenance and testing. Results of the tests should be recorded and made available for any inspecting officer of the Council or the Fire Authority.</p> <p>Maintenance and tests should be in accordance with the current British Standard.</p> <p>No works of any kind should be authorised that interfere with or damage the fire safety measures.</p> <p>Any officer visiting any premises, for any reason, should satisfy themselves that the fire safety measures that can be checked as part of that visit, are in good working order. Any deficiencies should be reported as a matter of urgency.</p> <p>No access at all, other than for residents and their guests, should be permitted into the common parts of the building. Trade entrance buttons should be disabled. Post should be delivered either to a secure lockable letter-box outside the house or through the front entrance door to a secure container.</p>
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Fire alarm panel and detectors/call points.



2 storey Houses in Multiple Occupation

Examples: as before

While 2 storey HMOs are not “licensable” under the Housing Act 2004, regard should be had to factors such as overall size and number of lettings, unusual layouts, long corridors, travel distances to final exit and high risk uses.

6.7 Standards of fire resistance	All dedicated escape routes will consist of a protected staircase providing a minimum of 30 minutes fire resistance, this will provide all occupants easy access to a place of safety. Compartmentalisation of parts of the premises may be required to a standard of one hour fire resistance to allow for higher risks, or other uses (over the shop, basements etc).
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6.8 Fire Alarm Standards	Installation of an automatic fire alarm and detection system in accordance with British Standard 5839 Part 6 Grade D LD2, or 3 for lower risk categories of HMO.
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Variations/relaxations for lower risk 2 storey premises ('student standard')

Why relax the 2 storey standard? Evidence shows that the risk to occupiers is in a similar range to that of a family house, provided there are no higher risk factors present.

In formulating any recommendation for works that constitute a relaxation of the prescribed standard for 2 storey HMOs, regard must be had to:

- The hazard rating score under HHSRS and to whether the rating gives a Category 1 hazard, Category 2 hazard or lower.
- The enforcement policy of the Council in respect of the above.
- Any current or future **vulnerable** residents
- The agreed standard works for the HMO based on number of storeys, complexity, size and number of lettings.

Once these have been considered and in premises that have generally travel distance of 18 metres or less from the farthest bedroom in the house to the

final exit, with standard layout and no special risks, a relaxation of the fire resistance standard may be considered. In such cases, well fitting internal quality doors (with smoke seals if gaps are greater than 3mm) would be appropriate in place of 30 minute fire resisting doors.

In such cases a modified fire alarm system conforming to then BS 5839, Grade D, LD3 system would be adequate (Detectors in hall, stairs and landings, with a heat detector in the kitchen).

In general, this standard will only apply if 6 individuals or less occupy a house. Groups of people such as students who occupy under one contract or professional sharers that are deemed to be 'living as a family' may fulfil this criteria. Higher levels of occupancy may not be considered for this 'student' standard and may be assessed to require a higher level of fire protection.

Full evacuation of the premises should be undertaken upon actuation of the principle fire alarm system. Every tenant must be informed about the action to be taken in the event of fire and there should be designated responsibility for calling the Fire Service.

Information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy of the Fire Escape Procedure should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions.

NOTE: HMOs where there is kitchen/cooking equipment in the rooms cannot be considered for relaxation of standards. This 'student standard' can only apply to HMOs where the layout is as a normal family house and there are no additional ignition sources added to the house by virtue of the HMO occupation.

Summary of permitted variation from 2 storey HMO standard

<p>6.9 Structural fire safety</p>	<p>Well fitting internal flush doors that close and latch properly and are fitted with smoke seals. 60 mins between shops/other uses and HMO. Doors to letting rooms and final exit doors must be openable without the use of a key (recommended mortice escape locks) Electric meters within the staircase to be enclosed in a fire resisting cupboard/housing. Escape route to be kept free from combustible materials and obstructions.</p>
<p>Fire alarm system</p>	<p>Mains operated fire alarm and detection system designed and installed to British Standard 5839 Part 6 2004 Grade D and category LD3 (detectors in escape routes and a heat detector in the kitchen), detectors to be</p>

	interlinked together to form one system. Remote hush/test switches recommended. Optical smoke detectors in hallways and landings etc and heat detectors in kitchens or rooms where there is cooking equipment.
Emergency lighting	Not normally required, unless there is significant lack of borrowed lighting within staircase enclosure and layout/changes of level present exit difficulties in the event of a fire.
Fire blanket	Minimum fire blanket in every kitchen.
Maintenance and testing:	Fire alarm should be tested weekly by landlord or tenant. Remote test switch allows for easy testing. An annual check by a competent person to comply with BS5839 Part 6 2004 should include cleaning in accordance with manufacturers recommendations. Each detector head should be replaced every 10 years (guaranteed life of the standby battery). If the building has been unoccupied or the mains power has been disconnected, the system should be tested to ensure the operation of the power supply and standby supply.

General statement of limitations

While the standards in this document represent the level of fire safety within the different categories of HMO, there will be instances where premises require a higher level of fire safety because of vulnerable occupants or unusual and higher risk internal layouts or increased combustion risks. In such cases, an individual risk assessment will be made to determine the works that are required to improve fire safety measures to an acceptable standard.

Every attempt has been made to categorize the typical types of residential accommodation found in the local area, but there exists the possibility that houses may not fit neatly into one group. In such cases the house in question will be assessed individually and appropriate recommendations made for improvement.

Get out, stay out and call the fire brigade out



Section 7

Appendix A - Glossary of Terms:

BS 5839 Pt 1 2002: Fire Detection and Fire Alarm Systems for Buildings: Code of Practice for system design, installation, commissioning and maintenance.

Category M: Manual call points

Category L: Automatic fire detection systems intended for life safety.

Category L4: System providing Automatic Fire Detection within those parts of an escape route comprising circulation areas and circulation spaces such as corridors and stairways. Additional detection can be provided in specific areas e.g. communal rest rooms.

Category L5: System providing Automatic Fire Detection to satisfy a specific fire safety objective. E.g. Bin rooms

BS 5839 Pt 6 2004: Fire Detection and Fire Alarm Systems for buildings: Code of Practice for the design and installation of fire detection and alarm systems in dwellings.

Grade D: A system of one or more mains powered smoke alarms each with an integral standby supply.

Category LD: Automatic Fire Detection and alarm system intended for the protection of life in dwellings.

Category LD2: A system incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling, and in all rooms or areas that present a high fire risk to occupants.

Category LD3: A system incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling e.g. the individual flats.

BS 5266 Pt 1: 1999 Code of practice for the emergency lighting of premises other than cinemas and certain other specified premises used for entertainment.

Maintained lighting (M): Emergency lighting system is energized continuously using normal supply source with a battery backup supply on interruption of the main supply.

Non maintained Lighting (NM): Emergency lighting systems are not normally energized. An automatic monitoring and switching system is provided to switch on the lighting if the normal supply is interrupted.

Duration: An emergency lighting system is designed to supply the required load for a desired period of time, is usually between 1-3 hours.

Hence, a system conforming to NM/2 is a Non Maintained system of 2 hour duration.