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HOUSING – FIRE SAFETY

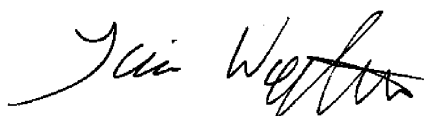
Guidance on fire safety provisions
for certain types of existing housing

Foreword by Communities and Local Government ministers

Fire safety within the home is an extremely important issue, especially in mixed use premises and where unrelated occupiers, who live independently from one another, share common areas of the same building. This area of law is covered by both the Housing Act 2004 and the Regulatory Reform (Fire Safety) Order 2005.

We welcome this guidance which helps to manage the relationship between the Housing Act 2004 and the Fire Safety Order by offering advice and assistance to enforcers, landlords, managing agents and tenants, amongst others, on ways to make residential buildings safe from fire, regardless of which piece of legislation is relevant. When it comes to fire safety, everyone involved has an interest.

So we would encourage all those with an interest in these types of premises to read this guidance, ensure they are aware of their responsibilities to carry out a fire risk assessment, and make sure their property has adequate and appropriate fire safety measures in place.



Iain Wright MP
Under Secretary of State
with responsibility for housing



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In preparing this guidance, LACORS wish to make it clear that:

- (i) Legislation may change over time and the advice given is based on the information available at the time the guidance was produced. It is not necessarily comprehensive and is subject to revision in the light of further information;
- (ii) Only the Courts, the Residential Property Tribunal or Lands Tribunal can interpret statutory legislation with any authority; and
- (iii) This advice is not intended to be a definitive guide to, nor a substitute for, the relevant law and independent legal advice should be sought where appropriate.

Part A: Introduction

1. Purpose of this guidance

- 1.1 This document contains guidance for landlords and fire safety enforcement officers in both local housing authorities (LHAs) and in fire and rescue authorities (FRAs) on how to ensure adequate fire safety in certain types of residential accommodation. It offers practical advice on fire risk assessment and contains case studies with suggested fire safety solutions. Appendix 1 provides an overview of the legal framework in relation to fire safety, but landlords should be able to comply with fire safety requirements without a detailed knowledge of the legal framework. Where necessary, advice on enforcement matters can be sought from the LHA, FRA or appropriate landlord associations. The content of this document is intended as guidance only. Definitive interpretation of the legislative requirements can only be made by the relevant court or tribunal. The guidance applies to England, but Welsh statutory requirements are very similar and so the general guidance on fire risk assessment may also be relevant in Wales.
- 1.2 This guidance does not introduce new standards or regulations but builds upon existing good practice and guidance currently in place around the country. It aims to provide landlords and enforcing officers with assistance in complying with the legislative requirements in a consistent and reasonable manner. The guidance was subject to an extensive consultation exercise and the final content has received input from a large number of LHAs, FRAs and landlords as well as Communities and Local Government and the Chief Fire Officers Association.
- 1.3 This document does not set prescriptive standards but provides recommendations and guidance for use when assessing the adequacy of fire precautions in these types of premises. Alternative fire risk assessment methods may be equally valid in order to comply with fire safety law, and alternative approaches to individual fire safety solutions may be acceptable.
- 1.4 There is currently no national guidance available to landlords to help them understand and comply with the regulatory framework. This document aims to provide that assistance. It also offers guidance to enforcing officers on both the regulatory framework itself and on recommendations for some fire safety solutions which will comply with that framework. The regulatory framework is summarised in paragraphs 1.6-1.8 and a more comprehensive explanation is offered in Appendix 1.
- 1.5 The guidance will be kept under review and further guidance may be issued. Any comments or enquiries should be addressed to LACORS at housing@lacors.gov.uk. Please note that LACORS will be unable to respond to queries from individual landlords and managing agents. Landlords with queries about fire safety regulation should contact their local council or fire and rescue authority.
- 1.6 The Housing Act 2004 brought in a new system of regulation for fire safety in existing residential premises by way of the housing health and safety rating system (HHSRS), licensing provisions for houses in multiple occupation (HMOs) and management regulations for HMOs. In practice the HHSRS is the principal tool used to assess and regulate fire safety standards, but HMO licensing conditions will reflect HHSRS assessments. The responsible person for the purposes of fire safety provision and maintenance at the residential accommodation is the person having control – usually the landlord, or alternatively in HMOs the manager. Previous fire safety guidance for HMOs contained in the Department of Environment Circular 12/92 has been withdrawn.
- 1.7 Alongside the Housing Act 2004, the Regulatory Reform (Fire Safety) Order 2005 (FSO) introduced duties in relation to fire safety in the common areas of HMOs ^{note 1}, flats, maisonettes and sheltered accommodation in which personal care is not provided. The duty is placed on the responsible person, who is required to carry out a fire risk assessment and take specific action to minimise the risk of fire in the common parts. ‘Responsible person’ means “the person who has control of the premises in connection with the carrying on of a trade, business or other undertaking”. In practice this will usually be the landlord, but in the case of absentee landlords where the “carrying on of the business” is undertaken by a managing agent it may be the managing agent. These provisions are enforced by fire and rescue authorities.

note 1: the order will not apply to some HMOs which are occupied as ‘shared houses’ – see paragraph 35 for further guidance.

- 1.8 There is therefore a dual enforcement regime in place in multi-occupancy premises. In order to avoid duplication and the potential for conflict, the Fire Safety Protocol established a framework for joint working arrangements between these two sets of authorities and is being adopted locally around the country to good effect. The protocol is included in this guidance at Appendix 2. In premises occupied by single households, only the HHSRS (housing health and safety rating system) will apply.
- 1.9 Guidance to fire and rescue authorities under the FSO has been issued in the HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide, published by Communities and Local Government (CLG) in May 2006. Guidance for local housing authorities under the Housing Act 2004 is contained in the HHSRS Operating Guidance and HHSRS Enforcement Guidance, both issued by CLG in February 2006. In order to underpin the fire safety protocol and offer practical guidance to enforcing authorities and landlords, several local and regional guides have also been developed around the country. Some excellent work has been done in this respect, but it has been widely recognised that a single set of national, risk-based guidance is needed to bring together and build upon this regional work and inform LHAs, FRAs and landlords in their application of fire safety solutions. Such guidance will help to simplify the dual enforcement approach and bring some national consistency. However, it should be noted that housing design varies across the country and there are certain types of houses specific to certain regions which require a specialist solution. In such cases, local guidance may be more comprehensive than that contained in this guide.
- single household properties;
 - shared houses;
 - bedsit HMOs;
 - purpose-built flats and buildings converted into self-contained flats to a standard not in compliance with the Building Regulations 1991;
 - sheltered accommodation in which personal care is not provided; and
 - small hostels to which the HM Government Sleeping Accommodation Guide is inappropriate (application will be determined by the LHA and FRA jointly under the terms of the Fire Safety Protocol).
- 2.2 It should be noted that the guidance applies to the above types of premises regardless of tenure (i.e. whether owner-occupied, social housing or private rented sector).
- 2.3 This guidance does not apply to properties constructed or converted to a standard in compliance with the Building Regulations 1991 or later (and which still comply). Buildings converted and maintained to a standard meeting those regulations will not require additional fire safety measures unless occupied in a manner other than intended under the original construction or conversion scheme (for example occupation of a single household flat as a flat in multiple occupation or where some other additional risk has been subsequently introduced). Where a building did comply but has deteriorated significantly through lack of maintenance, damage or other alteration then it may require additional measures and this guidance should be applied. Where building regulation standards are subsequently raised it is not currently envisaged that further works would be necessary.

LACORS has produced this guidance in partnership with the Chief Fire Officers Association and the Chartered Institute of Environmental Health in order to meet the above objectives. The guidance has undergone extensive consultation and received input from many LHAs, FRAs and landlord associations as well as individual landlords, housing and fire professionals.

2. Scope of this guidance

- 2.1 This fire safety guide is intended for buildings which have been constructed or adapted for use as domestic dwellings, and covers a range of existing residential premises including:

- 2.4 This guidance is also not intended to apply to:
- guest houses and bed and breakfast accommodation used by tourists/visitors. However, this type of accommodation is sometimes used to accommodate single homeless persons as their sole home. In such cases this guidance may apply and the terms of the Fire Safety Protocol should be adhered to determine enforcement responsibilities (see Appendix 2);
 - hotels and motels;
 - large hostels for which the HM Government Suite of Guidance is more appropriate (see note in 2.1 above);
 - refuges such as family accommodation centres and halfway houses;

- residential health and beauty spa centres;
- residential conference, seminar and training centres;
- student halls of residence (including those managed by commercial providers) and areas of sleeping accommodation in other training institutions including military barrack-style quarters;
- areas of buildings in boarding schools that provide sleeping accommodation;
- seminaries and other religious colleges;
- sheltered accommodation where personal care is provided;
- residential care homes;
- holiday chalets and complexes, camping and caravan parks (except privately owned individual units); and
- areas in workplaces where staff 'sleeping-in' is a condition of employment or a business requirement, as in hotels; but not including tied accommodation such as separate flats, houses, apartments, HMOs and accommodation above pubs.

These types of accommodation fall under the Regulatory Reform (Fire Safety) Order 2005 and detailed fire safety guidance for them is contained in the HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide.

3. Intended readership and layout of the guidance

3.1 This guidance is aimed at those who manage, give advice, enforce standards or live in existing residential accommodation falling within the scope of this guide.

Typically this will include:

- private sector housing providers (landlords);
- social housing providers;
- managing agents or facility managers;
- enforcement officers in local housing authorities;
- enforcement officers in fire and rescue authorities;
- advice agencies;
- residential leaseholders;
- owner-occupiers (where appropriate);
- freeholders (where appropriate); and
- tenants in the accommodation types covered by the guidance (where they have an enquiry or dispute relating to fire safety standards in their home).

3.2 The guidance is laid out as follows:

Part A: the introduction should be read by everyone using the guide as it lays out the purpose, scope and application of the guidance and the intended readership.

Part B: outlines the principles and methodology of fire risk assessment. This is particularly aimed at landlords and is intended to offer them guidance and assistance in a simple format in order to de-mystify the fire risk assessment process. It may also be useful to new enforcement officers or those returning to this area of work.

Part C: outlines the general principles of fire safety in residential accommodation. This part informs the reader how various fire safety precautions may be applied to reduce risk, and is a useful guide to all readers as it explains why the various fire safety precautions are recommended.

Part D: offers example case studies for various types of premises. The studies are intended to bring the principles in Part C to life. The studies given are examples of fire safety solutions. Other solutions may be equally valid. The studies must not be used as 'off-the-peg' solutions and should always be read in conjunction with Part C.

The appendices are intended as a reference source for all readers and include:

- a detailed explanation of the regulatory framework for fire safety;
- the Fire Safety Protocol which establishes the principles and describes the joint working arrangements between LHAs and FRAs; and
- an example form for recording the findings of the fire risk assessment which landlords may find particularly useful.

The glossary is intended as a plain English guide to some terms used in the guidance.

The bibliography offers sources of further reading for those seeking greater detail or researching the source of some of the guidance.

Part B: Fire risk assessment

4. Introduction

- 4.1 Where it applies the Regulatory Reform (Fire Safety) Order 2005 (FSO) places a duty on the responsible person to take general fire precautions to ensure, as far as is reasonably practicable, the safety of the people on the premises and in the immediate vicinity. 'Responsible person' means "the person who has control of the premises in connection with the carrying on of a trade, business or other undertaking". In practice this will usually be the landlord, but in the case of absentee landlords where the "carrying on of the business" is undertaken by a managing agent it may be the managing agent.
- 4.2 The responsible person must carry out a fire risk assessment for the purpose of identifying the general fire precautions and other measures needed to comply with the FSO. Although under the FSO this requirement only applies to the common parts of premises, in practice the responsible person will need to take into account the entire premises – including, to some extent, the units of accommodation themselves. While the FSO has limited application to certain types of property (see paragraph 35), the principles of fire safety risk assessment apply across the board, and their application should ensure compliance with all the legislation.
- 4.3 Having identified the general fire precautions that are necessary and having implemented them, the responsible person must put in place a suitable system of maintenance and appoint competent persons to implement any procedures that have been adopted. This could, for example, be a premises manager or agent, who need not necessarily be permanently on the premises but would ensure that the responsible person's duties were observed.
- 4.4 Guidance on fire risk assessments follows in this section. More detailed guidance can be found in HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide, which is available on the CLG website at www.communities.gov.uk/firesafety.

5. What is a fire risk assessment?

- 5.1 A fire risk assessment is an organised and methodical look at the premises, the activities carried on there and the likelihood that a fire could start and cause harm to those in and around the premises.
- 5.2 Most premises covered by this guide will be relatively small and will have a straightforward and simple layout, and little fire safety expertise is likely to be required to carry out the risk assessment. In larger buildings or where the building contains different uses (for example, residential accommodation alongside or above a separate commercial use) then specialist advice may be required.
- 5.3 The aims of the fire risk assessment are:
 - to identify the fire hazards;
 - to reduce the risk of those hazards causing harm to as low as reasonably practicable; and
 - to decide what physical fire precautions and management arrangements are necessary to ensure the safety of people in the premises if a fire does start.
- 5.4 The terms 'hazard' and 'risk' should be understood in the context of this guidance:
 - hazard: anything that has the potential to cause harm
 - risk: the chance of that harm occurring.

6. Suggested method for carrying out a risk assessment

- 6.1 The guidance offered here follows the general methodology contained in HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide, but alternative approaches may be equally acceptable.
- 6.2 The assessment method suggested in this guide shares the same approach as that used in general health and safety legislation, and it can be carried out either as part of a more general risk assessment or as a separate exercise.
- 6.3 The fire risk assessment should be carried out in a practical and systematic way and enough time must be allocated to the exercise. In some larger premises and those with mixed uses, it may be helpful to divide the

building into rooms or a series of assessment areas using natural boundaries (for example kitchens, offices and stores; and corridors, stairways and external routes).

6.4 The process can be broken down into five steps:

1. Identify fire hazards (paragraph 6.5).
2. Identify people at risk (paragraph 6.10).
3. Evaluate, remove or reduce risk and protect against remaining risk ^{note 2} (paragraph 6.14).
4. Record, plan and inform or train (paragraph 6.20).
5. Review (paragraph 6.25).

note 2: Part D of this guidance contains various example case studies which may help inform on appropriate precautions to remove, reduce and protect against risk.

6.5 **Step 1: identify the hazards within the premises**

6.6 For a fire to start, three things are needed: a source of ignition, fuel and oxygen. If any one of these is absent, a fire cannot start. Taking measures to avoid the three coming together will therefore reduce the chances of a fire occurring.

6.7 Sources of ignition: identify potential sources of ignition, i.e. sources of heat which could get hot enough to ignite any materials around them. In premises covered by this guide they may include:

- smokers' materials such as cigarettes, matches and lighters (if people smoke within the premises);
- naked flames, for example candles and night lights;
- electric, gas or oil-fired heaters (fixed or portable);
- boilers;
- cookers, toasters and other kitchen equipment (especially when shared);
- faulty or misused electrical equipment;
- electric blankets, computers, TVs, washing machines and dryers;
- lighting equipment (fixed and movable), for example halogen lamps and table lamps;
- the electrical installation itself ^{note 3};
- the gas installation ^{note 3};
- arson attack; and
- in larger or mixed use properties, any plant rooms, lift motor rooms and so on.

6.8 Sources of fuel: anything that burns is fuel for a fire.

Things that will burn reasonably easily and are in large enough quantity to provide fuel for a fire or cause it to spread to another fuel source are potential hazards. In premises covered by this guide they may include the following, but this list is not exhaustive:

- furniture, furnishings, textiles, bedding, clothing and curtains ^{note 4};
- laundry;
- accumulations of unwanted mail, waste paper, cardboard, newspapers and magazines (including that awaiting recycling collection);
- waste storage and refuse containers;
- flammable liquid-based products such as paint, varnish, thinners, adhesives, white spirit, methylated spirit and cooking oils;
- liquefied gas (LPG), paraffin, heating oils and petrol;
- paper products, packaging materials, stationery, advertising material and books;
- decorations for seasonal and religious occasions;
- plastics and rubber such as videotapes, polyurethane foam-filled furniture and polystyrene-based display materials; and
- wall, floor and ceiling coverings and surface finishes.

note 3: electrical and gas installations and appliances are subject to regulations which impose installation and maintenance requirements (the Gas Safety (Installation and Use) Regulations 1998 and the Electrical Equipment (Safety) Regulations 1994) (see Appendix 1, paragraphs A.67 and A.73). Compliance with these regulations will reduce the risk presented by some of the items listed above.

note 4: furniture and furnishings are subject to the Furniture and Furnishings (Fire) (Safety) Regulations 1988 (see Appendix 1, paragraph A.61). Compliance with these regulations will reduce the risk these items present.

Particular care should be taken when premises are undergoing alteration, repair or redecoration. During such times flammable materials that would not normally be present may be stored in the premises, possibly in escape routes or in rooms which are otherwise unused. Care should be taken as to where and how these products are stored. Premises which normally have good fire precautions and present a low fire risk may have their fire safety compromised by temporary careless storage of these products or by the disabling of fire precautions during the period of the works.

- 6.9 Sources of oxygen: in premises covered by this guide the oxygen source will be the air in the building. Where only normal natural domestic ventilation is provided the risk will generally be normal.
- 6.10 Step 2: identify people at risk**
- 6.11 It is necessary to identify those who will be at risk if there is a fire and where they are likely to be found. In premises covered by this guide these will generally be residents and their visitors and anybody working in the premises such as a caretaker or cleaner and any visiting contractors. Only in buildings with mixed residential and commercial use are there likely to be other people to consider.
- 6.12 The risk assessment should consider people at risk, who may include:
- people asleep (who will be disorientated and slow to respond);
 - people who are unfamiliar with the premises (guests and visitors);
 - people with disabilities (including mobility impairment and hearing or vision impairment);
 - people who may have some other reason for not being able to leave the premises quickly (such as parents with young children);
 - people who are sensorially impaired due to alcohol, drugs or medication;
 - unaccompanied children and young people;
 - anyone working in enclosed, isolated parts of the building; and
 - anyone who has difficulty understanding English.
- 6.13 In evaluating the risk to people with disabilities it may be necessary to discuss their individual needs with them or seek professional advice.
- 6.14 Step 3: evaluate, remove or reduce risk and protect against remaining risk**
- 6.15 Hazards should be removed where it is practicable to do so, and where they cannot be removed they should be reduced as far as possible. What is considered reasonable in a particular case will depend on an evaluation of the potential to cause harm and the chance of that harm occurring. Some simple examples are given below:
- replace portable heating appliances with fixed convector heaters or a central heating system;
 - ensure electrical sockets are adequate in number and sited appropriately to avoid overloading and trailing leads;
 - ensure electrical, mechanical and gas equipment is installed, used, maintained and protected in accordance with the manufacturer's instructions;
 - ensure all furniture complies with the Furniture and Furnishings (Fire)(Safety) Regulations 1988;
 - ensure combustible items such as furniture, laundry and decorations are stored properly and are kept away from potential ignition sources such as cookers, heaters and boilers;
 - ensure refuse is properly stored and disposed of; and
 - in crowded accommodation, provide adequate shelving and cupboard space so that everyday items are not in proximity to cookers, heaters and so on.
- 6.17 Having taken measures to remove or reduce fire hazards as far as is practicable, arrangements need to be put in place to protect people from the remaining fire risk as far as is reasonably possible by ensuring that adequate fire precautions are in place to warn people in the event of a fire and to allow them to escape to a place of safety.
- 6.18 The general principles of fire risk reduction are outlined in Part C, where guidance is also given on what measures should be implemented and to what standards, based on overall fire risk assessment.
- 6.19 Case studies of various types of premises and how these precautions could be employed to reduce fire risk are given in Part D.
- 6.20 Step 4: record, plan, inform, instruct and train**
- 6.21 It is a good idea for everyone to keep a written record of their fire safety risk assessment. If you have five or more employees (including any who work part-time and not necessarily at the particular premises being risk-assessed), and if the premises are licensed, or if an alterations notice is in force (see Appendix 1, A.57) the law says you must make a written record of your risk assessment. In these cases it is the "significant findings" of the risk assessment that must be recorded. Significant findings are the actions to be taken as a result of the assessment and details of anyone at particular risk. Significant findings should include details of:
- the fire hazards that have been identified (but ignore trivial things such as a tin of solvent-based glue);
 - the actions taken, or which will be taken, to remove

or reduce the chance of a fire occurring (preventive measures);

- persons who may be at risk, particularly those especially at risk;
- the actions taken, or which will be taken, to reduce the risk to people from the spread of fire and smoke (protective measures);
- the actions people need to take if a fire occurs. This will include any special arrangements made with staff such as housekeepers or others (the emergency plan);
- any information, instruction and training identified as being needed, and how it will be given; and
- any discussions that have taken place with residents (or, if appropriate, with staff).

It is recommended that a record of the significant findings of the fire risk assessment is kept in all cases, even where it is not a requirement to do so. An example template is shown in Appendix 3 – however, any alternative format will be acceptable provided it contains the information above.

6.22 An appropriate emergency plan should be put in place. In most residential accommodation this is unlikely to extend beyond advising residents what to do in the event of a fire or fire alarm and how to contact the fire and rescue service. In large or mixed use premises a more sophisticated plan may be necessary.

6.23 The responsible person must provide any employees with appropriate information and training on risks identified in the risk assessment and information on fire safety measures and procedures for the premises.

6.24 There is no requirement under the FSO to provide training to residents, but providing them with basic information on fire precautions is a simple and effective way of reducing fire risk in the premises.

6.25 Step 5: review

6.26 The risk assessment and the general fire precautions in the premises should be reviewed regularly. There is no specific timescale for this other than where there is a reason to suspect that it is no longer valid or where there has been a significant change in the premises.

6.27 In practice the fire precautions should be kept under constant review. Where problems are identified they should be dealt with as soon as possible.

Part C: General principles of fire risk reduction

7. Introduction

7.1 Existing residential accommodation comprises a wide range of property types, occupancy arrangements and occupier type. Fire risks in rented accommodation, and in particular in houses in multiple occupation (HMOs), can be complex. HMOs often provide accommodation for people from a wide range of backgrounds and may house vulnerable or disadvantaged groups. In some HMOs there is a high occupancy turnover rate with little social interaction or cohesion between occupiers. The mix of often poor-quality, low-cost housing and vulnerable occupants can lead to a higher than normal fire risk.

7.2 With these varying factors applying it is not credible to offer a single solution to fire safety which can be applied broadly. Fire safety solutions must instead be based on the level of risk presented by an individual property and its mode and level of occupation. Often alternative solutions are available which will provide an equally acceptable level of fire safety for a particular property, and sometimes identical properties may need different approaches due to differences in the types of occupation or the needs of the occupants.

7.3 This risk-based approach is enshrined in current fire safety legislation, in particular the housing health and safety rating system and the Regulatory Reform (Fire Safety) Order 2005 (see Appendix 1, paragraphs A.7 and A.51).

7.4 However, some basic fundamental principles apply to fire safety generally, and these must be applied flexibly to meet the needs of a particular property. These principles are outlined in this chapter and are brought to life in the case studies in Part D.

7.5 A risk assessment carried out on premises constructed or converted to a standard which would meet the requirements of the Building Regulations 1991, approved document B is unlikely to conclude that additional fire safety measures are required. Premises constructed/converted to that standard and subsequently maintained as such are likely to have adequate fire safety measures. The exception is where the premises are occupied in a manner other than that intended under the original construction

or conversion scheme (for example, occupation of a single household flat as a flat in multiple occupation, or where some other additional risk has been subsequently introduced). Where a building did comply but has deteriorated significantly through lack of maintenance, damage or other alteration it may require additional measures and this guidance should be applied.

- 7.6 In view of the type of properties falling within the scope of this guide, the fire safety approach adopted is to provide early warning of any fire to all occupiers and to ensure that they can safely evacuate the building to a place of permanent safety (total evacuation). Blocks of flats which were constructed or converted in compliance with the Building Regulations 1991, approved document B or equivalent may adopt a different approach such as 'stay-put' as the level of compartmentation means there will be a low risk of fire spreading beyond its unit of origin.

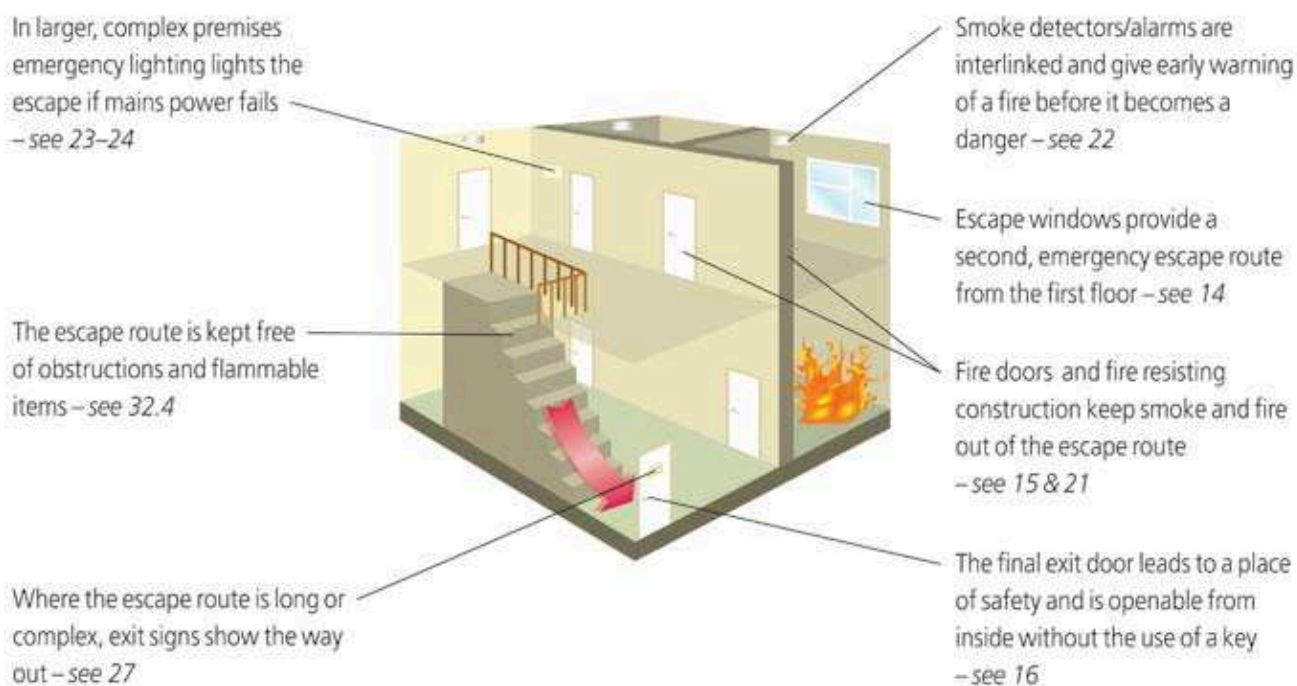
8. General fire safety principles

Figure C1 (below) illustrates some general principles which underpin fire safety in a residential context.

9. Escape routes

- 9.1 This section provides guidance on the general principles relating to escape routes along with examples of typical escape route solutions for different building layouts. Most residential premises covered by this guide will be considered as 'normal' risk. This is based on the general assumption that the occupants are able-bodied and will be capable of using the means of escape unaided to reach a place of ultimate safety, and that there are no unusually high risk elements. If this is not the case or there are other factors which present a higher than normal risk then additional measures may be required.
- 9.2 Layout of accommodation units themselves must be considered. Poor layout within a unit of accommodation can present a fire risk to the occupant before he or she is able to reach the escape route. Ideally, sleeping areas or rooms should be closer to the exit door to the accommodation than living areas or kitchen facilities (see also paragraphs 12 and 13 regarding inner rooms and galleries).
- 9.3 Wherever possible, fire risks such as the storage of significant quantities of flammable materials and ready

figure C1: some general principles of fire safety



sources of ignition should be removed or reduced. If it is not possible to do so, the risk should be regarded as 'higher' and the property may need a higher level of fire safety protection than normal. Other examples of higher risk might include very large premises, premises where there are integral commercial uses, and those with unusually poor levels of construction or with complicated layouts. Similarly, the occupancy of the building may present a higher than normal risk, thereby warranting a higher level of protection – for example where significant numbers of occupiers have limited mobility or are unable to move without assistance, or premises catering for people subject to alcohol or substance misuse.

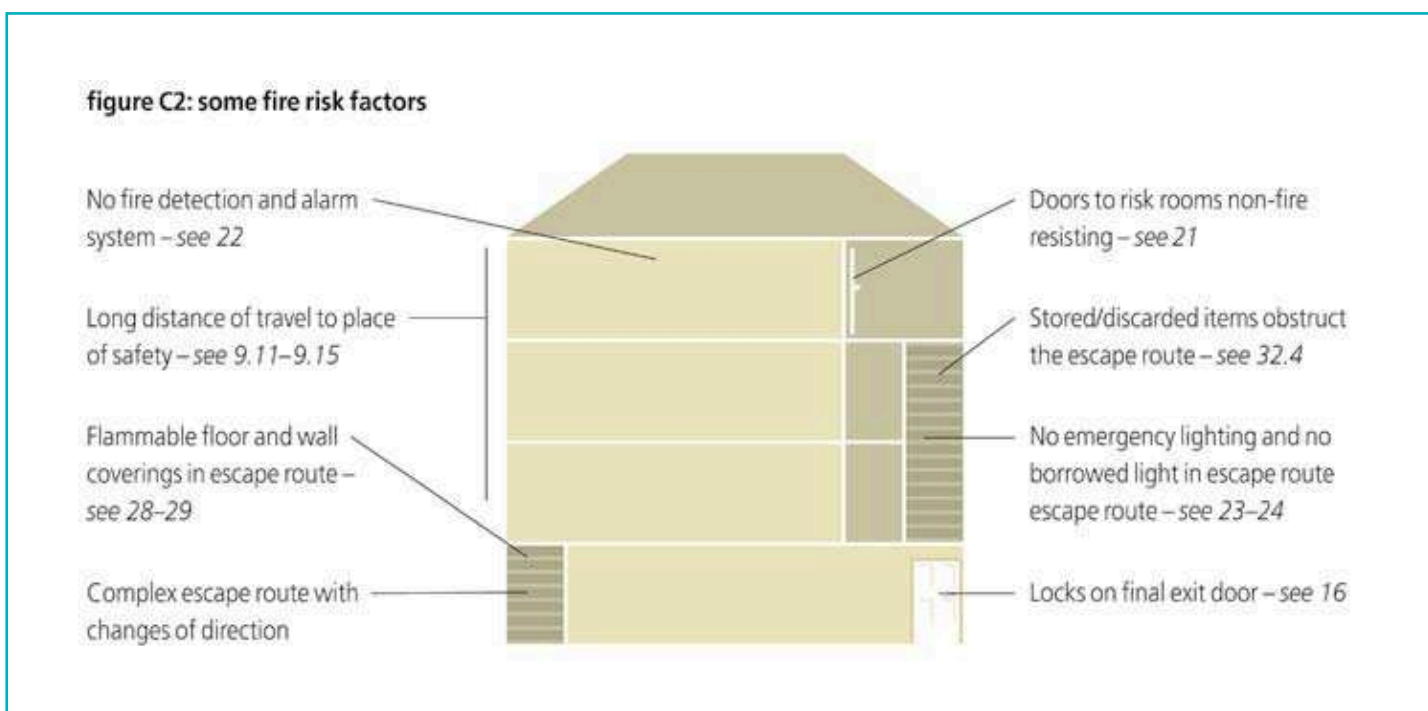
- 9.4 Conversely, some premises present a risk which can be regarded as 'low'. Examples may include premises with all of the following characteristics:
- a low occupancy level and all the occupants are able-bodied and capable of using the means of escape without assistance;
 - very little chance of a fire occurring and few, if any, highly combustible or flammable materials or other fuel for a fire;
 - where fire cannot spread quickly throughout the property and will be quickly detected so people can make their escape; and
 - where there is more than one acceptable escape route.
- 9.5 The guidance on acceptable standards for escape routes in this document is based upon 'normal' risk.

9.6 When considering the safety of the existing escape route, in addition to the occupant profile it is necessary to consider:

- the layout and complexity of the route;
- the travel distance to a place of safety;
- the type of construction and state of repair; and
- the presence of other fire safety measures such as automatic fire detection and warning systems, emergency lighting or fire suppression systems.

Figure C2 (below): Some risk factors to consider

- 9.7 In all buildings a fully protected escape route (staircase) offering 30 minutes fire resistance is the ideal solution and it will usually be appropriate for all bedsit-type accommodation. However, in lower risk buildings (i.e. single household occupancy of up to four storeys and low risk shared houses), due to the lower risk and shorter travel distance to the final exit, this need not be insisted upon as long as all the following conditions are met:
- the stairs should lead directly to a final exit without passing through a risk room;
 - the staircase enclosure should be of sound, conventional construction throughout the route;
 - all risk rooms should be fitted with sound, close-fitting doors of conventional construction (lightweight doors and doors with very thin panels should be avoided); and
 - an appropriate system of automatic fire detection and warning is in place (see table C4).



- 9.8 An alternative solution is possible in low risk two-storey shared houses. Where the first floor is no more than 4.5 metres above ground level, rooms used for sleeping could be provided with access to a suitable escape window from the first floor leading to a place of ultimate safety. In this situation consideration of the internal escape route is not essential. The option of escape windows will only be acceptable if they meet the requirements of paragraph 14, and, where they do not, the provisions of paragraph 9.7 should be usually applied. If it is necessary to pass through the common escape route to reach the escape window, consideration should be had to the travel distance involved. Where the common escape route is not a protected route, unusually long travel distances may be unacceptable and other fire precautions may be necessary (this will not usually be the case in conventional houses).
- 9.9 In the worst-case scenario, it may be that the requirements of paragraphs 9.7 and 9.8 cannot be provided and the only exit internally is through a risk room. Whilst this should always be avoided where possible, in some cases it may be impracticable to do so. Where this is the case it may exceptionally be possible to accept exit via a risk room provided the exit from the bottom of the staircase at ground floor level is possible in more than one direction (i.e. via either the front or the rear rooms). 30-minute fire resisting construction and FD30S fire doors between each of the ground floor rooms and the staircase will be required alongside an enhanced system of automatic fire detection. Where escape from the bottom of the staircase is only possible in one direction, a further alternative might be the installation of a water suppression system. These arrangements will generally be unsuitable for bedsit-type occupation.
- 9.10 When a fire starts, if there are no fire safety measures in place then the time that people have to escape before they become affected or trapped is extremely limited. The presence of fire safety measures extends this time. In practice this means the installation of some form of fire warning and detection system and an escape route which will remain unaffected by the fire for sufficient time to allow people to reach a place of safety. By necessity, the travel distance along the escape route must be limited.
- 9.11 Limiting the travel distance from rooms to a place of safety reduces the risk of people being trapped by a fire on their escape route. This guidance does not set a maximum travel distance, as this should be considered in the context of overall risk. However, previous standards have suggested maximum safe distances. For example, nine metres was considered the maximum acceptable distance from a room exit door to a place of relative safety. This is a useful reference but need not be applied as a rigid standard, and may be increased or decreased depending upon the level of risk once the appropriate fire prevention measures have been put in place. When assessing travel distances, the distance should be considered from all parts of the premises to the nearest place of relative safety, which is:
- a protected stairway enclosure (storey exit);
 - a separate fire compartment from which there is a final exit to a place of ultimate safety; or
 - the nearest available final exit.
- 9.12 If there is a suitable second staircase or exit or if there are additional fire safety measures (an enhanced system of fire detection and warning, for example, or a water suppression system), the premises may be considered lower risk and the travel distances and levels of protection may be adjusted accordingly where this lower risk can be demonstrated.
- 9.13 In single room units or other accommodation which has an exit door leading directly to a protected stairway enclosure or a separate fire compartment from which there is a final exit to a place of ultimate safety, it will only be necessary to consider the travel distance from the furthest point within the unit to that exit door. It is unlikely that in the types accommodation covered by this guide the distance will be so large as to have any impact on safety, but if such cases do arise then additional safety measures may be appropriate. In any event, cooking facilities within these rooms should, wherever possible, be sited away from the exit door so as not to prejudice it in the event of fire.
- 9.14 In units with more than one room leading off an internal lobby or hallway (flats), the travel distance within that lobby/hallway will need to be considered. If it is unusually large or there are a large number of rooms leading off it (for example a large flat in multiple occupation), the travel distances may necessitate making the internal lobby/hallway a fire protected route; or it may necessitate the provision of an alternative exit or additional fire safety measures such as an enhanced fire detection and warning system or an automatic water suppression system. Doors to sleeping rooms within the unit should, wherever possible, be closer to the exit door than

doors to higher-risk rooms such as kitchens and communal living rooms.

- 9.15 In more complex buildings, such as those with more than one escape route or with complex layouts, greater attention to travel distances will be required. Such situations will not usually be encountered in the type of premises covered by this guide, but if so then the guidance contained in HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide should be followed.

10. Habitable basements

- 10.1 Consideration needs to be given to the fire risk presented to occupiers of any storey below the main entry/exit level of the house and the risk that storey poses to the remainder of the house. Such storeys may be true basements or lower ground floors where the main house entry level is raised above ground and accessed via steps.
- 10.2 Ideally, the fire separation between the basement and the ground floor (including the staircase soffit and spandrel) should be 30 minutes fire resisting, and a 30-minute fire resisting door should be fitted at the head of the basement stairs.
- 10.3 For single household occupancy or low-risk shared houses of no more than two other storeys (not counting the basement), it should be possible to accept existing construction provided it is of sound, conventional construction (such as plasterboard or lath and plaster ceilings) and is in good condition. In this situation it should also be possible to accept existing, well fitted and constructed solid doors within the basement, providing they are in sound condition and self closing. Solid timber doors and panelled doors of substantial construction may be adequate in these lower risk situations, but flimsy constructions and hollow infill-type doors (commonly known as 'egg-box') would not be. This can be difficult to assess and expert advice may be required.
- 10.4 In larger shared houses and other multi-occupied premises, full 30 minutes fire separation between the basement and ground floors should be expected, with a self-closing 30-minute fire resisting door with intumescent strips and smoke seals fitted at the head of the stairs to the basement. In some very large occupied basements, it may be appropriate to have two FD30S doors (top and bottom of the basement

staircase) to ensure that escaping occupiers do not have to escape up through a trapped layer of smoke and heat.

- 10.5 The standard of fire resistance of individual room partitions and of doors to rooms should be the same as for the remainder of the house.
- 10.6 Ideally, a separate exit to an ultimate place of safety should be provided from the basement level. If this is not possible then escape windows should be provided to all habitable rooms. To be acceptable, escape windows should comply with paragraph 14, and where they do not (security measures may preclude it or there may be no escape from the basement well) then a 30-minute protected route should be provided within the basement up to the ground floor. However, for single household occupancy and in low-risk shared houses of no more than two other storeys (not counting the basement), it should be possible to relax the 30-minute standard as in paragraph 10.3 above.
- 10.7 In all cases the same level of automatic fire detection and warning system should be installed in the basement as in the remainder of the house.

11. Unoccupied basements/cellars

- 11.1 Unoccupied basements and cellars are often neglected or used for storage. They usually contain electrical wiring and possibly electric or gas meters, and they often receive little attention. The basement/cellar may be one open void without partitioning. Alternatively there may be rooms but they may not have substantial doors, the doors may be left open or may be in disrepair. In either case, any fire will quickly attack the basement/ground floor partition and door. Because of its location the fire will spread rapidly upwards and prejudice the escape route from the ground floor. For these reasons, generally the fire separation between the basement and the ground floor (including the staircase soffit and spandrel) should be 30 minutes fire resisting, and a 30-minute fire resisting door should be fitted at the head of the basement stairs. However, for two-storey single household occupancies and two-storey, low-risk shared houses, if the basement is well maintained and managed it may be possible to apply the same relaxation in fire separation as in paragraph 10.3 above. In all cases the same level of automatic fire detection and warning system as in the remainder of the house should be installed in the basement.

12. Inner rooms

12.1 A room where the only escape route is through another room is termed an 'inner room' and poses a risk to its occupier if a fire starts unnoticed in the outer room (sometimes termed an 'access room'). This arrangement should be avoided wherever possible. However, where unavoidable it may be accepted where the inner room is a kitchen, laundry or utility room, a dressing room, bathroom, WC or shower room.

12.2 Where the inner room is any other type of habitable room (for example a living room, sleeping room, workroom or study) it should only be accepted if:

- the inner room has access to a suitable door opening onto an alternative safe route of escape, or it is situated on a floor which is not more than 4.5m above ground level and has an escape window leading directly to a place of ultimate safety;
- an adequate automatic fire detection and warning system is in place (see paragraphs 22-25); and
- a fire-resisting door of an appropriate standard is fitted between the inner and outer rooms (typically FD30S standard for non-high-risk outer rooms).

12.3 Escape windows are only acceptable if they meet the requirements of paragraph 14.

12.4 In addition to the precautions outlined in paragraphs 12.1-12.3 above, in all cases the following additional requirements must apply for the arrangement to be acceptable:

- outer rooms should be under the control of the same person as the inner room;
- nobody should have to pass through more than one

outer room while making their escape; and

- ideally the outer room should not be an area of high fire risk, but if this is impracticable and there is no other option it could be accepted in this situation as exit via an escape window provides an alternative.

Figure C3 (below): Inner rooms

13. Galleries

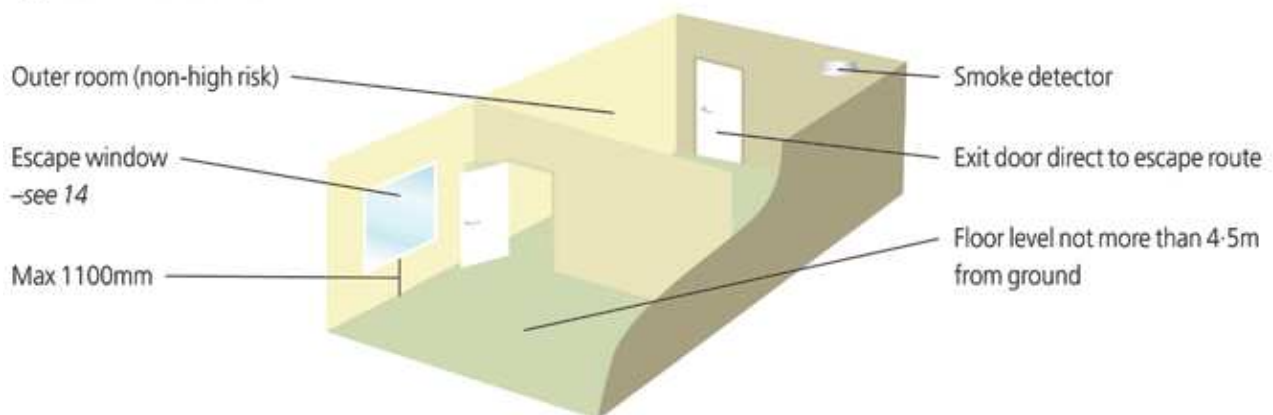
13.1 Gallery accommodation has become popular in open plan studios and elsewhere where space is at a premium. To be acceptable a gallery should:

- ideally be provided with an alternative exit leading to a place of safety; or
- where the gallery platform is not more than 4.5m above external ground level it should have an escape window leading to a place of safety. Escape windows will only be acceptable if they meet the requirements of paragraph 14.

13.2 Where an alternative exit or suitable escape window is not possible, the gallery should comply with all of the following:

- at least 50% of the floor area of the room should be unobscured by the gallery;
- the distance from the foot of the egress stair from the gallery to the room exit should not be excessive (approximately three metres is a suggested reasonable maximum); and
- any cooking facilities within the room should be enclosed within fire-resisting construction or be sited remote from the room exit and gallery egress stair.

figure C3: inner rooms



13.3 In all cases a suitable automatic fire detection and warning system should be in place (see paragraphs 22-25).

Figure C4 (below): Gallery where escape window is not possible

14. Requirements for escape windows

14.1 Any window provided for emergency escape purposes should have an unobstructed openable area that is at least 0.33m² and have a minimum 450mm height and 450mm width. The bottom of the openable area should not be more than 1,100mm above the floor.

14.2 Escape windows can only be considered if satisfied that it would be safe to use them in an emergency. They should meet the following criteria:

- they serve rooms whose floor level is no more than 4.5m from the ground;
- every room served by the escape window has access to it without entering another habitable room with a lockable door (unless of a type that can be overridden from outside the room without the use of a key, tool or numerical code) and any tenancy agreement should ideally prohibit the fitting of alternative or additional locks. (This will usually be achievable in single household occupancies and most shared houses, but is unlikely in a bedsit-type HMO);
- If it is necessary to pass through the common escape route to reach the escape window, consideration should be had to the travel distance involved. Where

the common escape route is not a protected route, unusually long travel distances may be unacceptable and other fire precautions may be necessary (this will not usually be the case in conventional houses);

- occupiers are able-bodied individuals with no specific high-risk characteristics and who can reasonably be expected to exit via the window unaided;
- there is no basement well or other encumbrance beneath the window such as railings or a conservatory;
- the escape window is openable from the inside without the use of a removable key; and the ground below is level and free of obstructions; and
- the window or door should lead to a place of ultimate safety, clear of the building. However, if there is no practical way of avoiding escape into a courtyard or back garden from where there is no exit, it should be at least as deep as the building is high.

Figure C5 (see page 17): Minimum requirements for escape windows

14.3 If any of the above requirements cannot be met, the use of the escape window should not be accepted and an alternative solution should be adopted.

15. Protected routes/stairs

15.1 A protected route is designed to remain free from smoke and fire for a time adequate to allow occupiers of the building to pass safely along it to a place of

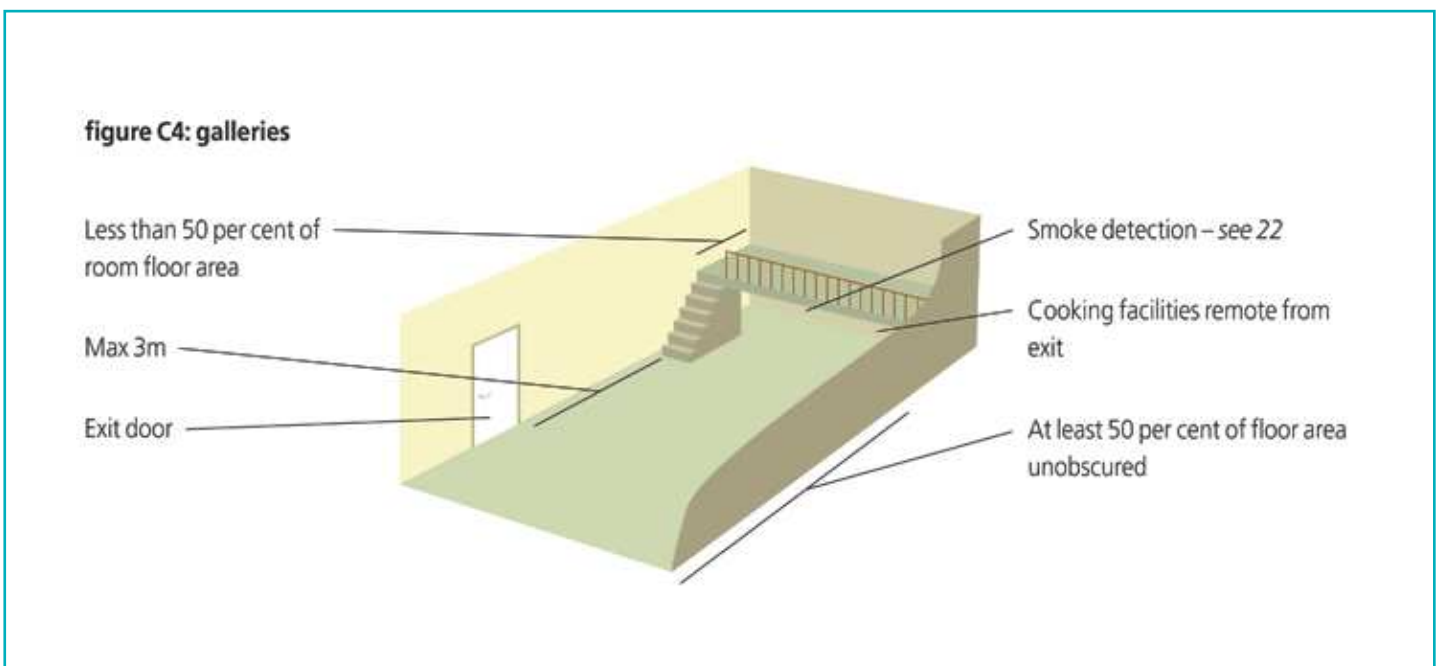
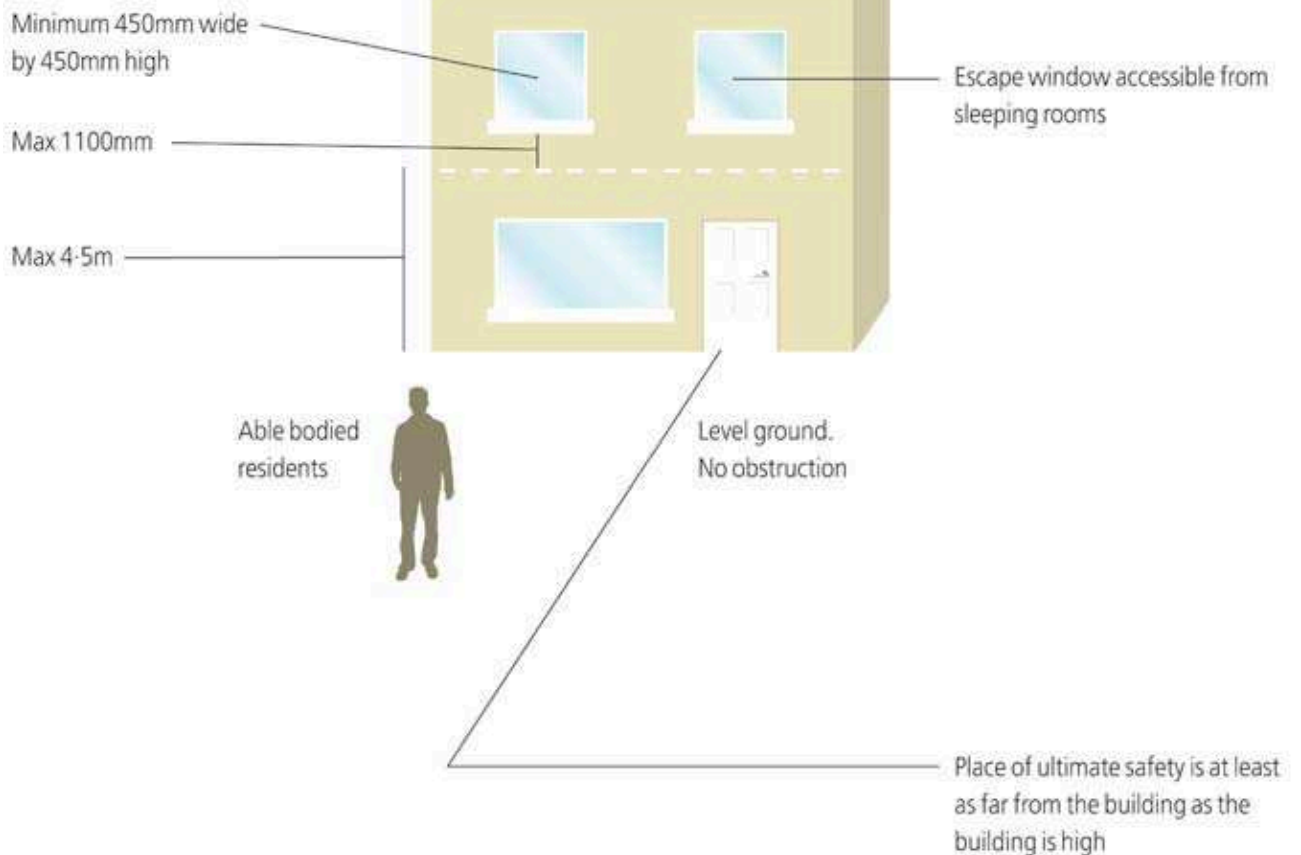


figure C5: requirements for escape windows



safety. The level of fire separation required between the protected route and rooms presenting a fire risk is determined by risk assessment.

15.2 Ideally the recommended standard of fire resistance enclosing a protected route is 30 minutes for normal risk premises. However, subject to risk assessment, in lower risk properties (average single household occupancy or low risk shared houses) with automatic fire detection this may be relaxed (see paragraph 9.7). In such cases it may be sufficient to accept sound, conventional construction throughout the route. Larger properties, however, will require 30 minutes protection including fire doors. Areas of high fire risk may require 60 minutes protection. Examples of 60-minute requirement include:

- walls, ceilings and doors separating commercial uses from residential parts;
- walls, ceilings and doors separating areas of high fire risk, for example commercial kitchens, large boiler rooms or large stores;
- separating walls between buildings; and

- basement areas or cellars without automatic fire detection.

Further guidance on protected routes is given in the remainder of this section, and case study examples of suitable fire safety solutions are given in Part D.

15.3 The protected route should be maintained free of any obstructions and/or fire risks. In particular, the stairway should not contain:

- any portable electric, gas or oil heaters;
- any fixed heaters using a portable heating source such as liquefied gas;
- any cooking facilities; and
- any furniture or storage.

15.4 Storage cupboards should not be located in protected routes unless they are fire resisting and kept locked shut and smoke alarms/detectors are fitted within them (as appropriate). The exception is for all single-household accommodation and shared houses of not

more than two storeys, for which in most situations cupboards can be adequately managed so as not to present an additional risk and can be accepted.

15.5 Gas or electric meters and/or distribution boards should ideally not be sited in escape routes. However, it should be possible to relax this providing any gas meter is installed in accordance with the gas safety regulations and any electric meter is installed and sited in accordance with current IEE regulations. It is considered best practice to enclose such equipment in fire-resisting construction.

15.6 There is usually no requirement to provide protection to bathrooms and shower rooms which open onto protected routes. Properly installed and maintained central heating boilers, electric showers or water heaters and room-sealed gas water heaters pose little additional risk. However, if the room contains open flame or electric bar space heaters, storage cupboards or other risk items then either the storage cupboards or the room itself, as appropriate, should be protected to the appropriate standard in the same way as the remainder of the route.

16. Exit doors

16.1 Ideally, final exit doors from all premises should be fitted with locks/catches which are openable by the occupiers from the inside without the use of a removable key. This should always be the case in HMOs, including shared houses. Where security locks are fitted they should be of the type with a suitable internal thumb-turn to facilitate this. To safeguard security any glazed panels within the door or adjacent to it should be replaced with protected glazing of some kind or protected in another way from intruders.

16.2 It is strongly recommended that the exit door from each unit of accommodation (bedsit or flat) is also openable from the inside without the use of a removable key.

16.3 Electrically operated locks must fail to safety (open) or have a manual over-ride in the event of power failure.

17. Secondary means of escape

17.1 In certain larger buildings and those with certain higher risk characteristics, a secondary means of escape will be required (for example in a six-storey bedsit-type HMO or

a five-storey bedsit-type HMO which does not have fire protecting lobbies to the risk rooms).

17.2 For the purposes of this guidance the term 'secondary means of escape' refers to a second, alternative means of escape from the building other than the usual escape route usually used to enter or exit the premises.

17.3 Typically a secondary means of escape will comprise an external staircase down the rear or side of the building. In some situations this may prove impracticable, and as an alternative a secondary means of escape could be achieved by creating a door through a separating wall or across a roof walkway into the common parts of another building which itself has a protected route leading to a place of safety. Such arrangements are undesirable and should be 'designed out' wherever possible. If no other arrangement is possible then this is usually only acceptable when the two adjoining buildings are under the same ownership/management or where the arrangement is reciprocal and a strictly enforced, legally binding agreement is in place. In an ideal situation, access to the secondary escape would be possible from every floor. However, this is usually impracticable, and access solely from the top floor will be acceptable provided the other fire safety precautions recommended in this guide are in place. In five and six-storey buildings, to protect the upward escape route at fourth and fifth floor levels from any fire on the floors below, there should be 30 minutes fire separation across the staircase between the fourth and fifth floors.

17.4 To be acceptable a secondary means of escape should meet the following requirements:

- have access from the common parts of the building, not solely from rooms, bathrooms or WCs (where this is impracticable, special arrangements may be made with the agreement of the LHA);
- terminate at ground floor level at a place of ultimate safety;
- the entire length of the secondary means of escape to be passable without the use of a key or other tool;
- access preferably by a standard door, but where impracticable via an opening of at least 800mm x 540mm;
- fixed walkways will be required across any roofs and the roof area beneath should be 60 minutes fire resisting;
- walkways and staircases should have conventional and emergency lighting throughout the route to the standards outlined in paragraphs 23 and 24.

17.5 Stairs comprising secondary means of escape should comply with the following:

- clear width (minimum 600mm, preferred 800mm);
- pitch 30-42 degrees from horizontal (optimum 35 degrees);
- going (depth of tread from front to back) 225-300mm (optimum 250mm);
- rise (vertical distance between treads) 100mm-220mm (optimum 175mm);
- treads to be flat and non-slip;
- handrails required on both sides (840-1000mm height);
- minimum headroom clearance 1.5m (2m perpendicular height preferable).

Further details are contained in BS 5395, parts 1 and 3.

17.6 Fixed or removable vertical ladders, pull-down ladders and unconventional devices such as lowering lines and cradles are not suitable as secondary means of escape.

18. External stairways (other requirements)

18.1 To be an acceptable secondary means of escape, any external stairway should ideally be protected from the effects of fire along its full length. Except for those serving non-risk rooms, doors or windows adjacent to the route and vertically below it should, where possible, be protected. Doors should be fire resisting and self closing. Windows should be of fire-resisting construction and, if possible, fixed shut. However, in reality this will be impracticable if the windows serve habitable rooms. In such cases the risk will need to be assessed. If a fire in the room could prejudice both the internal escape route and the secondary escape route at the same time, the risk will be unacceptable and alternative measures will be required if the room is to remain in habitable use. Alternatives might include additional fire-resisting lobby protection internally, re-siting of the risk windows, mechanical ventilation to the room or the provision of a water suppression system. If acceptable alternatives cannot be provided then the room may need to be converted to low-risk use (e.g. bathroom/WC). Research on the effects of fire from openings on external escape routes suggests that the sensitive area is approximately 1.8m horizontally (as shown in figure C6 below). These dimensions should be treated with some flexibility according to the risk presented.

18.2 The external stairway should be protected from the weather so that the treads do not become slippery.

If that is not possible then a regular maintenance schedule should be in place and non-slip tread surfaces fitted. A cyclical re-painting schedule to prevent weather decay should be in place. Stairways should have conventional and emergency lighting throughout their route to the standards outlined in paragraphs 23 and 24.

Figure C6 (see page 20): Protected zone around an external secondary means of escape

19. Fire separation and compartmentation

19.1 In addition to providing a protected escape route, it is necessary to restrict the spread of fire and smoke from one unit of accommodation to another. This is termed compartmentation. Fire-resisting construction enclosing each unit of accommodation creates a compartment that will contain fire and smoke within it for a period of time, leaving adjacent units free from the effects of fire during that time.

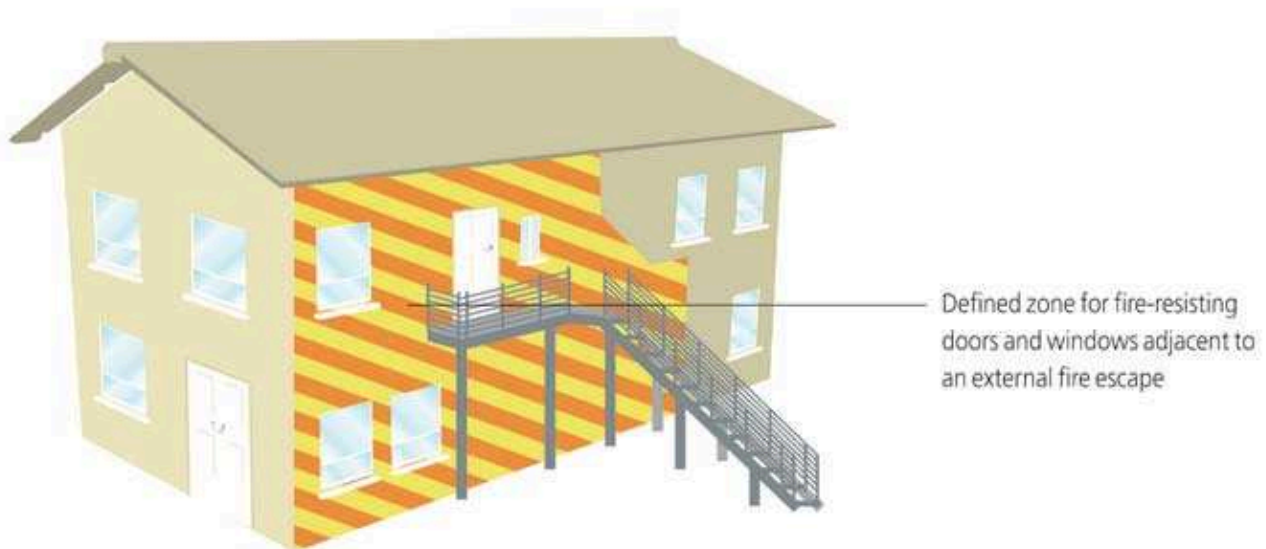
19.2 The recommended standard of fire separation in the types of premises of normal risk covered by this guide is generally 30 minutes. However, in lower risk premises (for example average single household occupancy or shared houses of no more than two storeys) this requirement can be relaxed (see paragraph 19.6). Where the fire risk assessment identifies specific higher risks then a higher standard of fire resistance may be required (usually 60 minutes) or additional fire safety measures should be installed. Examples of 60-minute requirement will include:

- walls, ceilings and doors separating commercial uses from residential parts;
- walls, ceilings and doors separating areas of high fire risk such as commercial kitchens, large boiler rooms or large stores; and
- separating walls between buildings.

Attention should be paid to any ductwork that passes through the separation. This will require protecting to the same standard of fire resistance as the partition itself.

19.3 Types of construction which meet the 30 minutes fire resistance standard are those tested to the relevant part of BS 476 or BS EN 13501. This will usually mean solid walls or timber stud partitions of a particular construction (with adequately fixed 12.5mm plasterboard and skim coat). However, many other

figure C6



proprietary constructions and products are available which have been tested to these standards and have a valid test certificate demonstrating 30 or 60 minutes of fire resistance.

19.4 In general (but subject to paragraph 9.7 for lower risk properties):

- walls and ceilings separating individual units of accommodation should be constructed to provide a minimum of 30 minutes fire resistance; and
- protected routes should be fully enclosed at all points by construction providing a minimum fire resistance of 30 minutes.

19.5 Existing partitions of standard construction with adequately fixed 12.5mm plasterboard with skim coat, on correctly sized and spaced timbers and in good condition, can be expected to achieve a nominal fire resistance of 30 minutes and should be acceptable.

19.6 In many existing buildings, constructions will be encountered which are of a lesser standard (for example 9mm plasterboard partitions or original lath and plaster construction). It is likely to be impracticable and uneconomic to replace such partitions as a matter of routine whenever encountered. Where they are in sound condition and good repair they may be acceptable in lower risk premises (shared houses of no more than two storeys with no particularly vulnerable high-risk occupants, provided the other fire safety measures as recommended in Parts C and

D of this guidance are in place). It will be difficult to determine the exact construction of an existing partition without invasive inspection. A practical solution to this could be to accept partitions where both sides of the partition are constructed of sound plasterboard or lath and plaster in good repair. Where there is any doubt as to the sound properties or integrity of the partition it may be appropriate to replace it. If these constructions are to be considered in premises of higher risk than those described in this paragraph, it should only be within the context of the overall fire risk assessment. This is likely to conclude that compensatory fire safety measures (such as an enhanced system of automatic fire detection and warning, a domestic water suppression system or a secondary means of escape) are necessary.

19.7 Particular care must be taken with walls and partitions enclosing protected routes to ensure that they will restrict the passage of smoke and fire. Any openings around pipes, services or ducts that pass through fire-resisting construction should be fire stopped with materials of at least the same level of fire resistance as the structure itself. Many proprietary fire stopping products are available, but only those which provide the appropriate fire resistance when tested to the relevant part of BS 476 or BS EN 13501 are acceptable. Any services (such as cables) constructed of combustible materials or materials likely to melt or be affected by fire should be enclosed within fire-resisting construction and be fire stopped to restrict the passage of smoke and fire.

20. Floor/ceiling partitions

- 20.1 In most premises covered by this guide, floor/ceiling partitions between units of accommodation should provide a standard of fire resistance of 30 minutes. The exception is those above areas of high fire risk which should provide 60 minutes. Floor/ceiling partitions between any basement or cellar and the ground floor escape route should provide 60 minutes resistance, but this may be reduced to 30 minutes where the basement/cellar has an automatic fire detection and warning system to the standard recommended in paragraphs 27-30.
- 20.2 Inspection of the floors/ceilings as part of the fire risk assessment will determine the suitability of existing construction. Generally, ceilings constructed with 12.5mm plasterboard with skim coat and in sound condition will be adequate. Other proprietary constructions will be encountered and it will be necessary to consult the manufacturer's fire test report to determine the standard of fire resistance and suitability.
- 20.3 Ceilings such as those constructed from 9mm plasterboard or lath and plaster (in sound condition) can be expected to provide a lower standard of fire resistance. However, this should be acceptable as part of an overall fire risk assessment in lower risk premises such as single household occupancy and shared houses of no more than three storeys with no specific higher risk factors present. Acceptability is conditional upon other fire safety measures being in place as recommended in this guidance (Parts C and D). If these constructions are to be considered in premises of higher risk than those described in this paragraph, it must only be within the context of the overall fire risk assessment, which includes the provision of compensatory fire safety measures such as an enhanced standard of automatic fire detection and warning system, a domestic water suppression system or a secondary means of escape.
- 20.4 Ceilings which are not in sound condition, particularly lath and plaster type, should be replaced or upgraded to provide 30 minutes resistance. This can be achieved by:
- removal and replacement of the existing ceiling with standard 12.5mm plasterboard and skim construction or alternative product/construction providing 30 minutes resistance and subject to a satisfactory fire test report;
 - providing additional protection below the ceiling; or

- providing additional protection within the floor space above the ceiling.

- 20.5 There are a number of acceptable methods and products available for upgrading ceilings/floors. Only products accompanied by a valid test report should be accepted. The report will specify the fire resistance which will be achieved by the upgrading method. This is essential for all upgrading methods, but particularly so where proprietary products are being considered. Where in doubt, careful scrutiny of the fire test report is essential before acceptance. Particular attention should be paid to any suspended ceilings. Several products are available which provide adequate fire resistance and which are accompanied by acceptable test reports, but not all suspended ceilings are designed to provide 30 minutes fire resistance. Often they are installed for aesthetic reasons and may conceal a ceiling beneath which has collapsed or is damaged. In such cases the overall construction may provide little fire resistance. Where suspended ceilings already exist, ideally a test report should be required from the installer/manufacturer. Where this is not forthcoming a judgment will need to be made following detailed inspection, and specialist advice may be required.
- 20.6 Suspended ceilings which do meet an acceptable standard should be inspected regularly and well maintained as they can be easily damaged.

21. Fire doors

- 21.1 Where fire-resisting partitions are required, any doorways within them must be fitted with fire-resisting door assemblies providing fire resistance at least to the same standard as the requirement for the partition itself – so 30-minute partitions will require a 30-minute fire-resisting door, 60-minute partitions a 60-minute door:
- 30-minute doorsets are specified as FD30 (or E 30)
 - 60-minute doorsets are specified as FD60 (or E 60)

The 30 or 60 figures denote the integrity performance time of the doorset in minutes. A letter 'S' after the figure (e.g. FD30S) or 'Sa' (e.g. E30 Sa) denotes a requirement for smoke seals to be fitted so as to restrict the passage of smoke, including cold smoke (see paragraph 21.3).

- 21.2 Most timber fire doors will need intumescent seals

- fitted. The type and location of the seals varies with the door design and the manufacturer's instructions should be followed.
- 21.3 In most situations fire-resisting doors should be fitted with smoke seals, as these restrict the passage of smoke into the escape route from the room where the fire is situated. The exception to this is where fire doors are fitted to rooms in premises where the fire detection system is restricted to the escape route (see paragraph 22.11/table C3). This will often be the case in three-storey shared houses. In these cases smoke seals should not be fitted, as their benefit will be outweighed by the fact that the smoke detectors in the escape route will only activate when the fire is at an advanced stage and beginning to breach the fire door. The resulting alarm may be so late sounding that the fire and smoke is already affecting the escape route. Where smoke detection is sited within rooms (LD2 coverage – see paragraph 22.11/table C3) the alarm will sound very early in the development of the fire and the smoke seals will be of benefit in keeping smoke out of the escape route, enabling occupiers to evacuate safely.
- 21.4 Fire doors should be installed and maintained in accordance with BS 8214:1990.
- 21.5 In most multi-occupancy situations, fire-resisting doors should be fitted with approved self-closing devices. This may be relaxed for doors within houses or flats occupied by a single household and doors within low-risk, shared houses. Doors to rooms within larger flats in multiple occupation and in larger or higher risk shared houses may require self-closers within the context of an overall fire risk assessment. Entrance doors to flats and bedsit rooms will always require them. Where fitted they should be of a type in compliance with BS EN1154 : 1997 (Power size 3 will usually be appropriate for FD30 and FD30S fire doors)
- 21.6 In lower risk premises where a full 30-minute protected route is not required (see paragraph 9.7 and case studies in Part D), it should be possible to accept existing, well fitted and constructed solid doors, providing they are in sound condition. Solid timber doors and panelled doors of substantial construction may be adequate in these lower risk situations. Non-fire-resisting glazed doors, doors of flimsy construction or hollow infill-type doors (commonly known as 'egg-box') should not be accepted. This can be difficult to assess and expert advice may be required.
- 21.7 The specification for the doorset on site should be identical to that specified in the test report for the doorset, which will be available from the manufacturer or supplier. Variations in any detail from the test specification may adversely affect the performance of the door. When new fire doors are to be provided, ideally an entire doorset construction should be fitted – thereby overcoming potential problems with fitting doors to frames of a different specification to that in the test construction. However, it is recognised that in some existing buildings of substantial construction this requirement may cause practical difficulties. If this is the case it may be possible to fit new fire doors to existing frames. This will, however, only be acceptable if the frames are of sound construction, in good condition, and of material and dimensions not less than those of the frame detailed in the test report.
- 21.8 The upgrading of non-fire-resisting door assemblies should be avoided wherever possible. The practice is generally impractical and uneconomic and is reliant upon strict adherence to an approved specification and upon a high standard of workmanship. Replacement with suitable, purpose designed and tested doorset constructions is always preferable. However, it is accepted that for aesthetic reasons it may be necessary to undertake upgrading rather than replacement. This will apply in buildings of special architectural interest and certainly in listed buildings where it is important to maintain the appearance or original features of the door. In non-listed buildings where there is no legal requirement to maintain the features of the door, property owners may still want to do so for aesthetic reasons. Whilst undesirable from a practical and fire safety viewpoint, upgrading may be acceptable subject to strict conditions. Not all doors are suitable for upgrading, so before undertaking upgrading the door must be assessed for suitability by a qualified person. Where the door is of a common construction and to a specification that has previously been subjected to a fire test and been considered suitable for upgrading, a standard method of upgrading may be specified. If the door type is unconventional it will need a specific assessment by a suitably qualified person who will issue an assessment report. The assessment report will specify the upgrading measures required.
- 21.9 There are several acceptable methods of upgrading available. They are restricted to those which have been successfully subjected to fire tests. Details of these are available from trade organisations such as TRADA† and from English Heritage† and in other practical and technical guides. Whatever method of

upgrading is being considered, it must be one which is accompanied by a valid and complete test report or an assessment report from a suitably qualified person. The report will specify the fire resistance which will be achieved by the upgrading method. This is essential for all upgrading methods but particularly so where proprietary products are being considered, and careful scrutiny of the report is essential before acceptance. When considering a report it is imperative that the door being considered for upgrading is of a design and specification corresponding to the door in the report. When the upgrading is carried out, the specification on site must correspond in all respects to that specified in the test or assessment report – including the specifications for intumescent strips, smoke seals, self-closers and ironmongery. Variations may adversely affect the performance of the door.

† TRADA : Stocking Lane, Hughenden Valley, High Wycombe, HP14 4ND
Website www.trada.co.uk
E-mail: information@trada.co.uk
Phone: 01494 569600

† English Heritage, Customer Services Department, PO Box 569, Swindon, SN2 2YP
Website www.english-heritage.org.uk
Email: customers@english-heritage.org.uk
Phone: 0870 333 1181

- 21.10 Where existing upgraded doors are encountered and no test reports or records are available, it may be impossible to determine the likely performance of the door. In these cases, if, following detailed inspection, a sound comparison cannot be made with a tested and approved upgrading method (tested on a door of similar construction and dimensions), then it may be necessary to replace the door.

22. Automatic fire detection and alarm systems

- 22.1 The presence of a suitable, properly installed and maintained automatic fire detection and warning system will alert occupiers to the presence of a fire in its early stages and enable them to evacuate to a place of total safety before the escape routes become blocked by smoke or directly affected by fire. The system should wake people who are sleeping (who may otherwise be asphyxiated by smoke before being able to escape). It should also alert the presence of a developing fire in any hidden areas such as boiler rooms, storerooms, cellars and other potentially

unoccupied risk areas before that fire affects the escape route.

- 22.2 The type of system to be provided in a particular premises is dependent upon risk. A small single family house will only require a relatively simple provision of smoke alarms. Larger properties will require greater coverage, and large HMOs with a number of detectors will require a more sophisticated system including an integrated control panel and alarm sounders. Virtually all residential premises where people are sleeping will require some form of automatic fire detection and warning system.
- 22.3 The type of system installed should be in accordance with the recommendations of BS 5839: part 6. This details different grades of system and extent of coverage and recommends an appropriate system based on the risk the premises presents. Relatively simple systems will be satisfactory for smaller, low-risk premises, but larger houses and HMOs will require a more sophisticated automatic system. In bedsit HMOs with cooking facilities within the bedsits and in blocks of self-contained flats then a mixed system is usually recommended, where the escape routes and common parts are protected by an interlinked system of alarms or detectors and the individual units have a separate stand-alone system to alert a sleeping occupant of fire in their own unit of accommodation. This has the benefit of reducing nuisance/false alarms throughout the whole property caused by activities such as cooking within any one unit.
- 22.4 BS 5839: part 6, The design, installation and servicing of fire detection and alarm systems in dwellings, is not a prescriptive standard but is based on the principles of fire risk assessment. It should be treated with flexibility. The standards recommended in part 6 table 1 are to be regarded as base guidelines. Those recommendations will be appropriate for premises of normal risk, but where the risk is assessed to be lower or higher than normal then a lower or higher provision of detection and warning may be appropriate.
- 22.5. **BS 5839: part 6 risk assessment criteria**
- 22.6 General principles:
- system design must be appropriate to the risk;
 - in assessing risk, consider each room in the dwelling separately;
 - consider statistical data on fire incidence in each

type of dwelling/room; and

- occupant characteristics are relevant (for example tenants with impaired hearing).

22.7 There is no risk low enough to negate the need for some form of detection and warning system in the house.

22.8 Design considerations/grades of system

22.9 BS 5839: part 6 grades fire detection and alarm systems for residential premises according to the complexity of the system. For the purpose of specifying fire detection and alarm systems and the associated engineering design parameters, there are six grades. In this guidance grade A and grade D are most relevant, but all six grades are described in table C2 for completeness.

Table C2: Grades of automatic fire detection and warning systems as specified in BS 5839: part 6 (2004)

Grade A: a fire detection and alarm system that is designed and installed in accordance with the recommendations of BS 5839: part 1 (2002), except clauses relating to alarm audibility, alarm warnings for the hearing-impaired, standby supplies, manual call points and radio-linked systems, which are replaced by part 6.

This comprises a system of electrically operated smoke and/or heat detectors which are linked to a control panel. The control panel must conform to current BS 5839: part 4 (or equivalent). In general the system must incorporate manual call points which should be located next to final exits, and, in larger multi-storey properties, on each landing. The alarm signal must achieve sound levels of not less than 65dB (A) in all accessible parts of the building and not less than 75dB (A) at all bed-heads when all doors are shut, to arouse sleeping persons.

Grade B: a fire detection and alarm system including detectors (other than smoke or heat alarms), alarm sounders and control and indicating equipment which either conforms to BS EN 54-2 (power supply to BS EN 54-4) or to a simpler type laid out in annexe C of BS 5839: part 6.

Grade C: a system of fire detectors and sounders (which may be combined in the form of smoke or heat alarms) connected to a common power supply with

both mains and a standby supply, with an element of central control – for example a small dedicated fire control panel.

Grade D: a system of one or more mains-powered smoke (or heat) alarms each with integral battery standby supply. These are designed to operate in the event of mains failure and therefore could be connected to the local lighting circuit rather than an independent circuit at the dwelling's main distribution board. There is no control panel.

Grade E: a system of one or more mains-powered smoke (or heat) alarms with no standby power supply. This grade of system will not function if mains power is disconnected or interrupted. It must therefore be wired to a dedicated circuit at the dwelling's main distribution board.

Grade F: a system of one or more battery-powered smoke alarms. These are not recommended in HMOs.

note: in grades D, E, and F, where more than one alarm is installed they must be interlinked.

22.10 Mixed grade systems

Installations where more than one alarm system is installed to serve the whole building are termed 'mixed systems'. These systems are installed to meet differing life safety objectives and may be to differing grades, having regard for the need to avoid false alarms from one dwelling unit affecting all occupiers.

Table 1 of BS 5839: part 6 recommends a mixed system for HMOs of three storeys and above (grade A for communal areas and grade D within individual dwelling units). However, for shared house HMOs of normal risk on the basis of risk assessment, this guidance does not recommend a mixed system as detection is not normally recommended within bedrooms in this type of accommodation.

22.11 Level of protection: types of system

BS 5839: part 6 (2004) recommends various levels of coverage for detection within premises, based on risk. These are outlined below in table C3.

Table C3: Levels of coverage of automatic fire detection and warning systems as specified in BS 5839: part 6 (2004)

LD1 coverage: a system installed throughout the dwelling incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling, and in all rooms and areas in which fire might start.

LD2 coverage: 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 i.e. risk rooms.

LD3 coverage: a system incorporating detectors in circulation spaces that form part of the escape routes from the dwelling only.

22.12 Guidance on grade and coverage of fire detection and warning systems within various types of existing residential premises

22.13 As outlined above, when specifying a system it is necessary to follow the principles of fire risk assessment. The design and complexity of the system should reflect the risk presented by the subject property and the type of occupier.

22.14 The recommendations for system design outlined in table C4 below are based on a broad risk assessment using data sourced from BS 5839: part 6 (2004). The recommendations constitute an acceptable benchmark and will, in the majority of cases, provide a reasonable level of protection. However, individual characteristics of the subject property must always be considered before specifying a particular system. The recommendations below are based on properties considered to present a normal risk for their type. They will have a suitable level of protection to the escape route and adequate other fire precautions as recommended in this guidance. Their occupiers will not be from high-risk groups. If this is not the case in the property under consideration then the risk can be considered as higher, and it may therefore be considered appropriate to recommend a higher standard of fire detection and warning or provide additional fire safety measures as appropriate to the case. For clarification of use of the term 'storey', see the glossary.

Table C4: Recommended grade and coverage of automatic fire detection and warning system for various categories of existing residential premises (normal risk)

Single household occupancy up to four storeys
Grade D: LD3 coverage (interlinked)

Single household occupancy five or six storeys
Grade A: LD3 coverage

Shared house HMO of up to two storeys (shared cooking facilities)

Grade D: LD3 coverage + additional detection to the kitchen, lounge and any cellar containing a risk (interlinked)

Shared house HMO of three or four storeys (shared cooking facilities)

Grade D: LD3 coverage + additional detection to the kitchen, lounge and any cellar containing a risk (interlinked)

Shared house HMO of five or six storeys (shared cooking facilities)

Grade A: LD2 coverage (detection in all risk rooms i.e. bedrooms, kitchen and lounge) (interlinked)

Bedsit HMO of one or two storeys with individual cooking facilities within bedsits

A mixed system:

- Grade D: LD2 coverage in the common areas and heat detectors in bedsits (interlinked)
- Grade D smoke alarm in each bedsit to protect the sleeping occupants (non-interlinked)

Bedsit HMO of three to six storeys with individual cooking facilities within bedsits

A mixed system:

- Grade A: LD2 coverage in the common areas and heat detectors in bedsits (interlinked)
- Grade D smoke alarm in each bedsit to protect the sleeping occupants (non-interlinked)

Two-storey house converted to self-contained flats (prior to Building Regulations 1991, approved document B standard)

A mixed system:

- Grade D: LD2 coverage in the common areas and a heat detector in each flat in the room/lobby opening onto the escape route (interlinked)
- Grade D: LD3 coverage in each flat (non-interlinked smoke alarm in the room/lobby opening onto the escape route) to protect the sleeping occupants

Three- to six-storey house converted to self-contained flats (prior to Building Regulations 1991, approved document B standard)

- Grade A: LD2 coverage in the common areas and a heat detector in each flat in the room/lobby opening

onto the escape route (interlinked)

- Grade D: LD3 coverage in each flat (non-interlinked smoke alarm in the room/lobby opening onto the escape route) to protect the sleeping occupants

Building converted partly into self-contained flats and partly into bedsits or non-self-contained lets

A mixed system:

- Apply the appropriate recommendation for each unit of accommodation from this table and the appropriate whole-house system based on the storey height

Flat in multiple occupation (FMO) (any storey height and regardless of date of construction/conversion)

Grade D: LD3 coverage + additional heat detector in the kitchen (and shared living room depending on risk)

23. Lighting of escape routes

23.1 When a fire occurs, people will be escaping in haste and in a probable state of distress or even panic. At night, when they have been awoken abruptly, they may be disorientated. With this in mind, the staircase and escape route must be adequately lit.

23.2 In common escape routes including stairways, conventional artificial lighting with a suitable system of control should be provided so that people are able to move within the escape route from a building during the hours of darkness (and during the day in areas that do not have the benefit of daylight). Some buildings will, in addition, require emergency escape lighting in the escape route. These will include:

- large buildings with long escape routes;
- buildings with a complex layout;
- buildings with no natural or borrowed lighting along the escape route; and
- buildings with vulnerable occupiers or those posing a specific risk.

23.3 In most single household properties conventional lighting arrangements should be adequate, subject to the above conditions. However, in larger single household properties, emergency escape lighting may be required if the escape route is complex and/or there is no effective borrowed light.

23.4 In buildings of up to two storeys conventional lighting

arrangements will usually be adequate, subject to the above conditions. In HMOs (including shared houses) of three or four storeys, it may be appropriate to provide emergency escape lighting throughout the escape route if the route is long or complex or where there is no effective borrowed light. For all HMOs of five or six storeys then emergency escape lighting is recommended, as the escape route will be long and may be complex.

23.5 The recommendations for lighting of escape routes outlined in table C5 below are based on a broad risk assessment. The recommendations constitute an acceptable benchmark and will, in the majority of cases, provide a reasonable level of safety. However, the recommendations are based on buildings considered to present a normal risk for their type. They will have a suitable level of protection to the escape route and adequate other fire precautions as recommended in this guidance. Some buildings (such as the examples quoted in paragraph 23.2) will require a higher specification of lighting in the escape route. Again, for clarification of use of the term 'storey', see the glossary.

Table C5: Recommendations for lighting of escape routes for various categories of existing residential premises (normal risk)

Single household occupancy up to two storeys

Conventional lighting

Single household occupancy three to six storeys

Conventional lighting. Emergency escape lighting maybe appropriate if route is complex and there is no effective borrowed light

Shared house HMO of up to two storeys (shared cooking facilities)

Conventional lighting

Shared house HMO of three or four storeys (shared cooking facilities)

Conventional lighting. Emergency escape lighting maybe appropriate if route is complex and there is no effective borrowed light

Shared house HMO of five or six storeys (shared cooking facilities)

Conventional lighting and emergency escape lighting

Bedsit HMO of one to four storeys with individual cooking facilities within bedsits

Conventional lighting (and emergency escape

lighting if risk requires or there is no effective borrowed light)

Bedsit HMO of five or six storeys with individual cooking facilities within bedsits

Conventional lighting and emergency escape lighting

Two, three or four storey house converted to self-contained flats (prior to Building Regulations 1991, approved document B standard)

Conventional lighting (and emergency escape lighting if risk requires)

Five or six storey house converted to self-contained flats (prior to Building Regulations 1991, approved document B standard)

Conventional lighting and emergency escape lighting

Two, three or four storey building converted partly into self-contained flats and partly into bedsits or non-self-contained lets

Conventional lighting (and emergency escape lighting if risk requires)

Five or six storey building converted partly into self-contained flats and partly into bedsits or non-self-contained lets

Conventional lighting and emergency escape lighting

Flat in multiple occupation (FMO) occupying a single storey of a building (at any storey height and regardless of date of construction/ conversion)

Conventional lighting (and emergency escape lighting if risk requires – may also be required in the common escape route)

Flat in multiple occupation (FMO) occupying more than one storey of a building (any level and regardless of date of construction/ conversion)

Conventional lighting (and emergency escape lighting if risk requires – may also be required in the common escape route)

23.6 For conventional lighting most existing arrangements will be adequate, with the following conditions:

- light switches/controls should be obvious, simple and visible under all conditions;
- switches should be located on every landing in a convenient and conventional position;

- in HMOs (except smaller shared houses) a dedicated lighting circuit should be installed so that the use of any one switch/control anywhere along the route will illuminate the entire escape route. However, in large properties where the escape route is divided into distinct, separated sections, each section may have its own control provided it is obvious and visible under all conditions. In such cases (and where there is no borrowed light to the route) the switches themselves should be illuminated. The rule is that it should never be necessary to search for switches.

23.7 If push-button, slow release lighting switches are to be used, careful consideration must be given to their duration setting. This should be assessed according to risk (i.e. the distance of travel to a safe place or final exit, the height of building, the complexity of the escape route and mobility of the occupiers). Where occupiers have limited mobility, time release switches should be avoided. In all other cases the duration must be adequate to allow a normal, orderly escape from the building and incorporate some degree of redundancy. The rule here is that people should never be plunged into darkness while using the route.

23.8 Theft of light bulbs from common areas is a problem experienced in some properties. If this is likely to be a problem, bulb holders with a different fitting to those within the accommodation units should be used (screw holders, for example). This is good practice and should be standard in bedsit-type HMOs. The use of long-life, low-energy light bulbs throughout the property also reduces the frequency of replacement, thereby helping to reduce this problem.

24. Emergency escape route lighting

24.1 Where considered necessary, emergency escape lighting must be designed to comply with BS 5266.

24.2 It will automatically illuminate upon the failure of the power supply to the conventional artificial lighting, when it must:

- illuminate the escape route to assist the occupants to move easily to exits and a place of safety;
- highlight any hazards such as stairs and changes in floor level or direction; and
- enable easy identification of any fire alarm call points and fire fighting equipment throughout the escape route.

24.3 Emergency lighting must operate not only when there is complete failure of the supply to the conventional artificial lighting, but also when there is a localised power failure within the lighting circuit that could be hazardous. The source of the power supply to the emergency lighting should be from the same local fuse as the conventional escape route lighting, so that in the event of that fuse failing, causing the normal lighting to fail, the emergency lighting will be brought into operation in the same locality.

24.4 In most cases self-contained, non-maintained luminaires providing three-hour duration will be adequate. Non-maintained luminaires remain unlit when the conventional lighting power supply is healthy. When it fails, the luminaire provides power to its own lamp from its own battery and illuminates. Restoration of the conventional lighting power supply switches off the emergency luminaire and recharges its battery.

24.5 Emergency lighting systems are categorised as maintained or non-maintained followed by their duration of illumination. So a non-maintained system with three-hour duration will be categorised as NM/3.

24.6 The power supply to the luminaires should be designed to prevent unauthorised disconnection, but it must incorporate a suitable means for simulating a mains failure (i.e. a test switch).

24.7 The mounting height of luminaires will be governed by the physical characteristics of the building. They should be mounted close to two metres above floor level (when measured to the underside of the luminaire) but not lower than two metres.

24.8 Luminaires should be sited in the following positions:

- near any intersection of corridors;
- above each final exit door;
- near each change of direction (other than on a stairway);
- within each stairway so that each flight of stairs receives direct light;
- near any change of floor level;
- outside any secondary escape exit if the street lighting is poor;
- near each fire alarm call point; and
- near fire fighting equipment.

'Near' is normally considered to be within two metres when measured horizontally. The route should be

reasonably uniformly lit.

24.9 It is essential that the emergency lighting system is routinely inspected and tested. Detailed recommendations are contained in BS 5266 and discussed in paragraph 32.8.

25. Fire fighting equipment (portable)

25.1 The provision of fire blankets and simple fire extinguishers can be useful in restricting the development and spread of small fires in their early stages. However, unless a fire is very small, the best advice is to evacuate the building to a place of safety and call the fire and rescue service. This is because for larger fires people need training to know what type of fire an extinguisher can safely be used on, how to tackle a fire safely, and when to give up and get out. The installation of extinguishers can also lead to problems if they are not properly maintained or where equipment is discharged through malice or horseplay. For these reasons extinguishers are not recommended inside units of accommodation unless there are resident staff who are trained in their use (a caretaker, housekeeper, warden or similar).

In order to provide a facility for extinguishing small fires in their early stages, a simple multi-purpose extinguisher is recommended on each floor in the common parts of HMOs and buildings containing flats. It will not usually be practical to train tenants in the use of these, but basic advice should be offered at the start of each new tenancy.

25.2 Fire blankets are recommended as good practice in kitchens of all premises covered by this guide, including single household occupation and bedsit rooms.

25.3 Fire blankets should:

- comply with BS 6575 or equivalent;
- be of 'light duty' type which are capable of dealing with small fires such as cooking fires or fires involving clothing; and
- be mounted on the wall approximately 1.5m high and closer to the room exit than the cooking facility.

25.4 Where provided, fire extinguishers should:

- comply with BS EN 3-7;
- be maintained in accordance with BS 5306-3 (see paragraph 32.7); and

- be appropriate to the risk.

25.5 Extinguishers should be located as follows:

- on a dedicated stand or hung on wall brackets with the handle approximately 1.5m from floor level;
- in a position such that they do not obstruct the escape route;
- close to the exit position from each floor;
- not obstructed by opening doors and not in recesses out of sight; and
- away from heaters or areas where they may be subject to damage.

26. Automatic water suppression systems

26.1 Interest in the use of water suppression systems for domestic premises is growing in the UK. The use of these systems in the United States and other parts of the world has proved their value in saving lives and reducing damage caused to property by fire. A water suppression system will detect, give warning, control, contain and often extinguish a fire.

26.2 The traditional concerns expressed regarding damage from accidental activation of water suppression systems can largely be discounted. The quantity of water discharged by a suppression head when activated in a fire is significantly less than that discharged in fire fighting by the fire and rescue service. In general, a water suppression system will use between 1/100th and 1/1000th of the water used by the fire and rescue service (source: Residential Sprinklers Association). Statistics show that accidental operation occurs in one in 16 million cases (source: West Midlands Fire Service guidance document for design freedoms in houses in multiple occupation incorporating residential sprinkler systems).

26.3 It is recommended that serious consideration be given to the role water suppression systems can play in existing residential accommodation. Historically, the main barrier to their installation has been cost. Whilst cost effective in new-build property or when installed during major refurbishment, the retro-fitting of water suppression systems in existing, occupied residential accommodation does need a considered cost/benefit analysis. However, the wider benefits of suppression and the cost savings resulting from any design freedoms offered in respect of other fire safety measures may work in their favour.

26.4 General description: a water suppression system is designed to cover a predetermined floor area. Fire suppression system supply pipes are permanently charged with water, fed from the domestic water main or storage tanks. Fire suppression heads are fitted to the system of supply pipes, and each is an independent unit and operates only if a fire causes it to do so.

26.5 Suppression heads are fitted with small thermal elements that are activated solely by heat. The thermal element is set to operate at a fixed temperature, not less than 30°C above ambient temperature, which makes it highly unlikely to operate other than in a fire condition. The exception is malicious operation and if the fire risk assessment indicates that this is likely, a water suppression system may not be appropriate. In the majority of fires just one suppression head is operated, which is often sufficient to deal with the fire.

26.6 Potential uses: there is potential for water suppression systems to be fitted in all types of existing residential accommodation. The decision to do so will be based on:

- a cost/benefit analysis of the overall benefit gained from their provision against the cost of installation and maintenance;
- the practicability of their installation;
- the extent of design freedoms available in terms of reduced compensatory provision of other fire safety measures; and
- their potential for fulfilling a need where traditional fire safety measures cannot be provided to the full recommended standard, for example where extended travel distances cannot be reduced to the recommended maximum or where fire protecting lobbies cannot be installed.

26.7 When considering a water suppression system, regard must be paid to the adequacy of the water supply and mains water pressure. If interruptions to supplies are possible or the water pressure is low or fluctuates, then additional measures such as pumping and water storage may be required – or indeed the installation may not be feasible.

26.8 Potential design freedoms: water suppression systems are not a fire safety solution in themselves. In isolation they cannot provide an acceptable level of fire safety in residential accommodation to meet the requirements of current legislation (see Appendix 1). However, as part of a comprehensive overall fire risk assessment they can be a key component in the overall solution and can contribute to a safe building. In particular the

provision of a suitable water suppression system can, in some circumstances, allow for relaxed provision of certain other fire safety measures (but not all). Some examples of design freedoms which have been applied include reduced fire separation/compartimentation, an alternative to a secondary means of escape where impracticable, extended travel distances and relaxed requirements for inner rooms. However, the provision of automatic fire detection and warning systems cannot be relaxed. These must still be provided as adequate early warning of a fire is always essential.

26.9 These trade-offs or 'design freedoms' are not prescribed in any statutory guidance and must be agreed with the relevant local housing authority, building control authority and fire and rescue authority for each individual case. Each case will have different factors and must be considered on its own merits. A blanket approach to the allowance of design freedoms should not be applied.

26.10 Standards for water suppression systems: where a water suppression system is agreed upon, its design, installation and maintenance should be in accordance with BS 9251:2005 or another equivalent standard approved by the enforcing authority. Approval of the type of system and its design should be sought from the enforcing authority prior to installation.

26.11 Installation should be carried out only by experienced sprinkler contractors who are suitably qualified and registered with an appropriate sprinkler association or third party accreditation scheme such as LPS 1048 scheme requirements for certificated sprinkler installers, supervising bodies and supervised installers. The installer must provide information to the landlord as detailed in clause 6.3.2 of BS 9251:2005.

More detailed guidance on water suppression systems can be found in A guide to automatic water suppression systems (AWSS) and their practical application (Chief Fire Officers Association).

27. Fire safety signs

27.1 In most residential premises of average size and normal risk, fire safety signs and notices will not be required. However, in larger premises or those with complicated layouts or with alternative exits, the fire risk assessment is likely to indicate some need for signage. The need for clear information should be balanced with the desire to maintain a homely

environment. The excessive provision of signage can create an 'institutional' feel to a building, which is undesirable in premises which are people's homes.

27.2 When determining whether fire safety signage should be provided, consideration should be given to the following criteria when carrying out the fire risk assessment:

- are all occupiers likely to be familiar with the escape route?
- which route offers the shortest travel distance?
- are there any changes in direction in corridors, stairways and open spaces which form part of the escape route?
- will people ever need to exit the building by a different route from which they entered?
- is there a choice of escape routes?
- are there any areas where confusion may occur when exiting the building?
- is there an external secondary means of escape to a place of safety?
- are there any facilities or equipment provided for fire safety that may need appropriate signage?

27.3 These considerations will determine whether fire safety signage is necessary. In general this will mean that signage will not be necessary in single family houses of any type or in smaller shared houses and HMOs with single, simple escape routes. However, if confusion is likely for any reason, the final exit(s) should be provided with a sign. In larger HMOs (of more than three storeys), those with complex or unusual layouts and those with multiple exits, signage will be required. In particular the following situations will require directional signage:

- the final exit;
- where there is more than one exit;
- where there is a secondary means of escape (for example an external staircase or roof-level exit);
- where there is a change of direction and the onward escape route it is not visible; and
- where there is any potential for confusion.

27.4 Any fire fighting equipment which is obscured from view should be indicated with a sign.

27.5 Generally in a domestic setting the placing of fire door signage on room doors is unpopular and unnecessary. However, fire-resisting doors across escape routes and doors to communal kitchens and other communal

rooms in HMOs should be marked 'Fire door keep shut' (see figure C9). Doors to cupboards, stores and boiler rooms opening onto the escape route should be marked 'Fire door keep locked shut'. These provisions can be relaxed in normal-risk shared houses.

27.6 Where fire safety signs are provided they should be in accordance with BS 5499 and the Health and Safety (Safety Signs and Signals) Regulations 1996.

27.7 To comply, directional signs must be pictographic (see examples C7 and C8 below). The pictogram can be supplemented by text to make the sign easily understood, but it cannot contain only text. 'Pictogram only' and 'pictogram with text' sign types should not be mixed in the same premises. Whilst either type of sign is acceptable, the pictogram with text style (figure C7) is thought to be more readily understood.

Figure C7: Directional escape sign (pictogram with text)



Figure C8: Directional escape sign (pictogram only)



Figure C9: Notice for fire resisting doors



27.8 Where the risk is such that directional signs indicating the escape route are considered necessary, they should meet the following criteria:

- they should provide clear, unambiguous information to enable people to safely leave a building in an emergency;
- every escape route sign should, where necessary, either incorporate or be accompanied by a directional arrow (arrows should not be used on their own);
- in long or complex escape routes, signs should be positioned so that a person escaping will always have the next escape route sign in sight;

- signs should be fixed above the door in the direction of escape and not be fixed to doors, as they will not be visible if the door is open;
- signs mounted above doors should be at a height of between 2m and 2.5m above the floor;
- signs on walls should be mounted between 1.7m and 2m above the floor;
- mounting heights greater than 2.5m may be used for hanging signs (for example in large open spaces or for operational reasons) but care should be taken to ensure that such signs are both conspicuous and legible. In such cases larger signs may be necessary;
- signs within the same premises should follow a consistent design pattern or scheme throughout; and
- signs should be sited at the same height throughout the escape route, as far as is reasonably practicable.

28. Surface finishes

28.1 In the early stages of a fire, the safety of a building's occupants can be affected by the properties of surface linings and the finishes of walls, ceilings and soffits. Rapid spread of flame across surfaces allows the fire to spread more quickly through the building, thereby reducing the time for escape. This is of particular concern in escape routes, especially in single staircase buildings. Arson is a particular problem in this respect: fires started deliberately can be particularly dangerous because they generally develop much faster. In multi-occupancy buildings they are often started in escape routes, as access is more easily gained to these areas.

28.2 In single household occupancy and some shared houses where the occupiers have exclusive control of the escape route, the risk may be low. No specific measures will therefore be required in respect of surface finishes. However, good practice would be to reduce the risk further by avoiding combustible surface finishes within the escape route.

28.3 In multiple-occupancy buildings the risk is usually higher. Combustible surface finishes should not be permitted within the escape route and should, as far as is practicable, also be avoided in other locations. However, in some HMOs the risk may be lowered by other fire precautions, such as in:

- two-storey buildings with suitable escape windows from all risk rooms (see paragraph 14);
- buildings where there is a second staircase or secondary means of escape which meets certain standards (see paragraphs 17-18); and

- buildings with additional fire safety measures such as a water suppression system.

In such cases the premises may be considered lower risk and the precautions outlined below in respect of surface finishes and floor coverings could be varied accordingly.

28.4 Materials are classified for combustibility and surface spread of flame by BS 476: parts 6 and 7 or under the European system by BS EN 13501-1.

28.5 Fire spread across surface finishes is classified as set out in table C6 below, with class 0 being the most resistant and class 3 the least. Classes 0-3 (or A-D) are suitable in multi-occupied residential accommodation, but should be restricted in some locations. Table C6 outlines their suitability for different locations within a multi-occupied property.

Table C6: Suitable classes of surface finish in certain locations in multi-occupied residential buildings

Class 0, B s3, d2

These are non-combustible materials and materials of limited combustibility such as brickwork, concrete, plasterboard and plastered finishes.
Acceptable in all locations including protected routes, circulation routes, escape routes and stairways.

Class 1, C s3, d2

These include timber, particleboard, hardboard and surfaces covered with heavy flock wallpaper, provided they have been treated with flame retardant materials.
Acceptable in rooms.

Class 3, D s3, d2

These include those specified in class 1 with the addition of thermosetting plastics and surfaces covered with polystyrene wall and ceiling tiles.
Not acceptable on escape routes and stairways.
Acceptable in small rooms and parts of other rooms if the total area does not exceed more than one half of the floor area up to a maximum of 20m².

Not acceptable on escape routes and stairways.

28.6 It is very difficult to identify the classification of existing coverings on-site unless the trade name of the product can be traced. Table C6 illustrates acceptable

locations for materials and products commonly encountered.

28.7 Multiple layers of gloss paint: surfaces may be found where multiple layers of gloss paint have been applied. These surfaces may present a risk of fire spread. Therefore it is recommended that the paint is removed from locations requiring a class 1 (or C s3, d2) or class 0 (C s3, d2) classification. Proprietary products may be available which can cover the paint, thereby providing an acceptable classification for the surface. These should only be used subject to a satisfactory fire test report but may not be suitable for areas subject to heavy wear and tear.

29. Floor coverings

29.1 Floor coverings throughout the protected route (i.e. stairways, hallways, landings and lobbies) of all categories of HMO should conform to low radius of fire spread (up to 35mm) when tested in accordance with BS 4790 or the European equivalent. It is good practice to adhere to this in all categories of HMO, although in lower risk shared houses this requirement may be relaxed.

29.2 BS 5287 Specification for assessment and labelling of textile floor coverings tested to BS 4790 specifies how these tested floor coverings should be labelled.

29.3 It is, of course, difficult to assess existing floor coverings in HMOs unless the supplier/manufacturer can be traced. As a general guide for existing carpets, those comprising a mix of 80% wool and 20% synthetic fibre (commonly referred to as 80/20 carpets) will comply. Many vinyl, linoleum and laminate floor coverings may not be suitable and will need replacing.

29.4 When considering the suitability of new floor coverings for protected routes it is sufficient to ensure they are labelled to BS 5287 or the European equivalent as low radius of fire spread (up to 35mm). Suppliers/manufacturers will be able to verify this (or otherwise).

30. Special provisions relating to 'back-to-back' houses

30.1 In certain areas of the country there remain a significant number of 'back-to-back' houses. These typically back directly onto one another at the party

wall and have other houses either side. This means there is only one exit from the house and the escape route inevitably passes through a risk room. This arrangement should be avoided wherever possible, but it is recognised that significant numbers of these houses do still exist and they make a valuable contribution to affordable housing supply. Any risk assessment carried out on a back-to-back house will identify higher than normal risk and will recommend special fire precautions accordingly. Back-to-back houses are restricted to certain areas of the country and LHAs and FRAs have developed local fire safety solutions for the types of houses in their areas, taking account of local building design and local need. Because of their specialist nature it is not appropriate to offer complete solutions to apply nationally in this guidance, as layouts and situations vary and the risk assessment must take account of this and recommend solutions as appropriate. While some basic solutions are outlined here for the sake of completeness, local guidance may be more comprehensive.

30.2 Solutions for back-to-back houses will inevitably rely heavily on the following main principles:

- the provision of a suitable escape window at first floor level accessible to all occupiers of the upper floors (see paragraph 14). Because of the design of this type of house it may not be possible to provide more than one escape window from the first floor. Where this is the case and the escape window is from a habitable room, the door to that room must not be fitted with locks and any tenancy agreement should ideally prohibit the fitting of locks (unless of a type that can be overridden from outside the room without the need for a key, tool or code);
- a suitable automatic fire detection and warning system. The grade and coverage of the system will depend on the risk the house presents (see paragraph 22.12 and table C4);
- an appropriate degree of fire separation between the ground floor and the upper floors. Full 30-minute separation will usually be appropriate with a FD30S fire door at the foot of the stairs leading from the ground floor to the first floor; and
- where a basement or cellar exists then the guidance in paragraphs 10 and 11 should be applied, with higher standards of separation as appropriate in the higher risk back-to-back properties.

30.3 Where the conditions for escape windows cannot be met (see paragraph 14), other solutions will need to

be adopted and may include the construction of a 30-minute protected escape route inside the house, 60-minute separation between the ground and first floors, the installation of a water suppression system (see paragraph 26) and the setting of conditions relating to facilities for calling the fire and rescue service in an emergency (for example linking the fire alarm system to a monitoring centre or the FRA).

A sample case study is given in Part D at paragraph 39 (D15), page 50.

30.4 This type of housing presents a particular risk, and some LHAs and FRAs may require alternative solutions including higher standards where appropriate.

31. Mixed commercial and residential use

31.1 Residential accommodation is often situated above or within commercial premises. Any fire in the commercial premises will affect the residential parts, and at night may not be noticed until well developed. The risk assessment will assess how high the risk from the commercial premises is, but it may be significantly higher than the risk from the residential parts (for example where the accommodation is above a pub, restaurant or dry cleaners).

31.2 Generally there should be 60-minute imperforate separation between the two uses. In lower risk commercial premises it may be possible to reduce this to 30 minutes where there is an automatic fire detection system in the commercial parts which is linked to the residential system. In higher risk premises, even where 60-minute separation is achieved it may still be appropriate to provide an automatic fire detection system linked to the residential system.

31.3 In some cases imperforate separation proves impracticable to achieve, for example with some accommodation above pubs. In these cases compensatory measures should be considered such as fire protecting lobbies between the two uses, a secondary means of escape, or in high-risk situations a water suppression system in the commercial premises.

32. Management and maintenance of fire safety

32.1 Whatever physical fire safety measures are provided in residential accommodation, their effectiveness

will only be as good as their management and maintenance. While single household dwellings will generally be self-managing, HMO accommodation will require ongoing attention to ensure fire safety measures remain effective. This section outlines management and maintenance measures applicable to HMOs. The responsible person (the licensee, landlord or managing agent) has a duty to ensure that the day-to-day management of fire safety in the premises is properly undertaken and that essential routine maintenance and emergency repairs are properly carried out. This is not only common sense and good practice, but also an obligation in law for those premises to which The Management of Houses in Multiple Occupation Regulations 2006 and the FSO apply (see Appendix 1, paragraphs A.45 and A.51).

32.2 The level of management attention required will be determined as part of the fire risk assessment. Detailed recommendations are to be found in the HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide. These recommendations may be appropriate in very large and complex buildings, but not all will apply fully for the average residential accommodation of normal risk covered by this guide.

32.3 Guidance on best practice in fire safety management can be found in BS 5588, part 12: 2004 Fire precautions in the design, construction and use of buildings – managing fire safety, but the points outlined below should be expected in any acceptable fire risk assessment as a minimum.

32.4 Escape routes:

- must be free from obstruction at all times, and regular checks should be made to guarantee this;
- there should be no free storage on the escape routes;
- there should be no trip hazards such as trailing electrical leads or worn carpets;
- in most cases fire-resisting doors should be effectively self-closing to engage their latches with no obstructions or hindrances such as catching carpets. This will always be the case in bedsit-type HMOs. However, the requirement for self-closers is considered unnecessary in some situations, such as individual room doors within flats (the flat entrance door will still require one), within single household occupancies, and in smaller low-risk shared houses. The use of self-closers in these situations has proved impracticable and has often rendered the doors ineffective;

- all doors should be close fitting as designed. Fire doors should never be propped or wedged open. Any damage to fire doors should be noted and repaired. Any damaged or missing smoke seals must be replaced like-for-like.

32.5 Automatic fire detection (AFD) and warning systems: BS 5839: part 1, section 6 contains recommendations for regular, routine testing of AFD systems as follows:

Grade A systems

- Routine testing – at least one detector or call point in each zone should be tested weekly to ensure correct operation of the system. Any defect should be recorded in the log book and action taken to correct it.
- Routine maintenance – a six-monthly service should be carried out by a competent person, usually a specialist alarm engineer, under a maintenance contract. It entails a full test to ensure compliance as specified in with BS 5839: part 1, section 6. It should be recorded in the log book and a periodic inspection and test certificate issued.

Grade D and E systems

- Routine testing – these systems should be tested every month by use of the test button on the smoke alarm.
- Routine maintenance – all alarms should be cleaned periodically in accordance with the manufacturer's recommendations.

All systems

- It is recommended that all detectors should be tested at least once a year to ensure that they respond to smoke. Tests should not involve the use of open flame or any form of smoke or non-specific aerosol that could contaminate the detection chamber or the electronics of the detector. Suitable specific test aerosols are available. The test is usually carried out by a specialist alarm engineer under a maintenance contract and should be recorded in the log book, with a periodic inspection and test certificate issued.

32.6 It is recognised that the above arrangements represent the ideal. While they may be possible in buildings with a resident landlord or a dedicated caretaker or housekeeper, in most situations for premises covered by this guide such arrangements may be impracticable. Where this proves to be the case

tenants should be given clear instructions on how to test grade D or E alarms within their dwelling using the test button, along with clear recording and reporting instructions for any faults or false alarms on the system. Grade A systems are more specialist and resident testing will be inappropriate unless there is a trained individual in the property. Clear fault and false alarm reporting arrangements should be put in place, and the responsible person or his/her agent should respond to reports at the earliest opportunity.

32.7 Fire blankets and extinguishers:

- where provided, these should be checked periodically to make sure they are in place and available for use. Extinguishers must be tested and maintained on an annual basis in accordance with BS 5306-3 and with the manufacturer's instructions.

32.8 Artificial lighting:

- conventional staircase lighting must be working properly at all times. Any blown bulbs should be replaced and all switches should be working. If timer switches are fitted then the duration should be checked and adjusted if necessary; and
- any emergency escape lighting should be serviced and maintained in accordance with BS 5266-8: 2004 (BS EN 50172: 2004) Emergency escape lighting systems. This contains detailed recommendations which include inspections and tests to be carried out, down to a daily basis. For large, complex HMOs (such as those with five or six storeys) or premises with a specific high-risk factor (persistent vandalism problems, for example, or complex escape routes and no effective borrowed light), the full recommendations may be appropriate. However, in most average sized premises with normal risk, the following regime with a procedure for responding to reports of defects should be adequate:
- an annual discharge test in accordance with the requirements of BS 5266: part 8. This must be carried out by a competent person, usually a lighting engineer under a maintenance contract. It entails a full test to ensure compliance with the standard and should be recorded in the log book, with a periodic inspection and test certificate issued.

32.9 Water suppression systems:

- where provided, the responsible person must ensure that any water suppression system is fully maintained and ready for use at all times. The landlord should enter into a maintenance contract with a competent person or company to

maintain the system in accordance with clause 7 (maintenance) of BS 9251;

- the responsible person must ensure that the system is fully functional at all times and that any defects are rectified as soon as possible;
- the responsible person should check the pressure gauge readings monthly and record these readings in the systems log book. Any significant fluctuations or pressure readings below the agreed system design must be rectified immediately; and
- the system log book must be used to record all actuations, testing, maintenance, system faults and any remedial action.

32.10 Gas installations (see Appendix 1, paragraph A.67):

- The Gas Safety (Installation and use) Regulations 1998 require that gas installations and appliances are maintained in safe condition and good working order and receive a gas safety check annually. The gas safety check and any other work to the installation may only be carried out by a competent and registered engineer. The findings must be recorded and the records kept for at least two years.

32.11 Electrical installations (see Appendix 1, paragraph A.73):

- the electrical installation should be installed and maintained by a competent person and should be inspected periodically by a competent electrical engineer. An inspection every five years is recommended for all types of premises and is a legal requirement in HMOs under the Management of Houses in Multiple Occupation (England) Regulations 2006 (see Appendix 1, paragraph A.45).

32.12 Electrical appliances:

- letting agents and landlords should check all electrical appliances at the start of each new tenancy for defects (for example frayed wiring or badly fitted plugs) and remove any unsafe items;
- it is good practice to have the equipment checked at regular intervals thereafter, but there is no legal requirement to do so unless appliances are used by employees;
- records should be kept of the checks carried out;
- instruction booklets should be available at the property for all appliances and any necessary safety warnings should be given to tenants; and
- second-hand electrical appliances should not be supplied, but if they are then they should be checked by a competent electrical engineer.

32.13 Furniture and furnishings regulations (see Appendix 1, paragraph A.61):

- all furniture within lettings commencing after 1 January 1997 must meet fire resistance requirements. However, the regulations do not apply to furniture made before 1950 and re-upholstered furniture made before that date;
- all new furniture (except mattresses and bed bases) must carry a permanent label stating that it complies with the fire resistance standards. However, absence of such a label does not mean that the furniture does not comply, as the label may have been removed after the furniture was supplied. Some furniture manufactured before the regulations were applied may comply with the requirements anyway; and
- landlords and managing agents must ensure that the furniture supplied meets the fire resistance requirements, and the only practical way of doing so is to ensure that the furniture is labelled by the manufacturer in this way. If this cannot be ascertained then the furniture should be replaced.

32.14 Information and training:

- each occupier should be given specific advice on fire prevention and fire safety in the home. This should be provided at the start of each new tenancy and reviewed periodically. Suitable advice can be found in annex one of BS 5588: part 12, Advice to occupiers of domestic residential buildings, and advice is also available from local fire and rescue authorities. Information should include:
 - an explanation of the escape routes, particularly where secondary means of escape is provided;
 - how the fire detection and alarm system operates and what to do if it activates;
 - how and when to re-set the fire alarm system;
 - if extinguishers or fire blankets are provided, training in their application and safe use;
 - avoidance of false alarms;
 - how and when to call the fire brigade;
 - how to report defects;
 - the importance of maintaining clear escape routes, free of storage;
 - the importance of keeping fire doors closed, not propped or wedged open;
 - smoking and cooking safety;
 - gas safety advice;
 - safe storage and disposal of refuse; and
 - the safe use of escape windows where appropriate.

32.15 Record keeping:

- it is recommended that a property log book is kept and all routine maintenance and servicing activity (as recommended in this guide) is recorded in it, along with all reported defects and remedial action taken – including false alarms. Model log books may be available from landlords associations or through landlord accreditation schemes.

Part D: Some risk-based case studies of fire safety solutions in certain categories of residential accommodation

33. Introduction

33.1 This chapter considers some commonly encountered types of residential premises and provides suggested fire safety solutions which could be applied to achieve a reasonable and acceptable standard of fire safety in each. In each case the solutions are based on a fire risk assessment. If the fire safety measures recommended are applied to buildings of similar risk, those buildings should meet the requirements of the legislation applying to them as outlined in Appendix 1. If the recommendations and risk methodology of this guide are applied, no additional works should be necessary to meet any of the requirements.

The recommendations in this chapter must be read in conjunction with Part C, which gives more details on individual provisions and applies some conditions to these recommendations.

33.2 The solutions recommended here are considered to be the most conventional and practical for most situations. There is no obligation to adopt these exact solutions, and it is possible that the relevant requirement can be met in some other way. However, any alternative arrangement will need to achieve at least an equivalent level of fire safety, and the responsible person will need to demonstrate that this is the case. The interaction between the individual fire safety measures is key. Where a higher standard of protection is provided than is recommended here, it may be possible to provide a compensating lower standard in some other respect (and vice versa). For example, in lower risk premises a reduced level of fire separation may be acceptable if a higher standard of fire detection and warning system is provided. Equally, the installation of a fixed water suppression system

(sprinkler system) may allow a reduced standard of fire separation. Variations on such themes will need to be considered on their merits, and agreement will need to be sought from the relevant enforcing authority.

33.3 The examples in this section assume a normal level of risk. They assume that:

- occupiers are able-bodied and capable of evacuating the building unaided;
- occupiers are not from any particular vulnerable group (for example people with impaired sight or hearing, the elderly or frail, or people with alcohol or drug dependency); and
- there are no particular high-risk factors present in the building such as commercial uses, large storage areas or the use of open fires.

Where this is not the case and higher risk factors are present, higher levels of fire safety precautions may be required.

33.4 The descriptions of the various categories of residential premises covered in this chapter will not necessarily match every situation, and professional judgment will be needed where variations occur. For clarification of use of the term 'storey', see the glossary. This chapter contains case studies for the following categories of premises:

- single occupancy accommodation;
- shared houses;
- bedsit-type HMOs;
- buildings converted to self-contained flats; and
- flats in multiple occupation.

34. Single household occupancy

Houses, flats and maisonettes occupied by persons living as a single household. The term 'household' means either a single person or members of the same family who are living together. This includes people who are married or living together as married (including those in same-sex relationships). 'Family' means specific relatives: parents, grandparents, children and step-children, grandchildren, brothers, sisters, uncles, aunts, nephews, nieces or cousins. Foster children are also treated as part of their parents' household.

Case study D1: Single household occupancy of no more than two storeys (see figure D1)

Escape routes (see paragraph 9)

No requirement for full 30-minute protected route ^{note 5},

but the escape route should have sound, conventional construction and should not pass through risk rooms

No requirement for fire doors ^{note 5}, but sound, well constructed and close-fitting conventional doors are required

Alternatively, provide suitable escape windows from bedrooms and living rooms (see paragraph 14)

Fire separation (see paragraph 19)

No requirement for additional fire resistance, but walls and floors should be of sound, conventional construction

If a basement/cellar is present, 30-minute separation between the cellar and the ground floor escape route is the ideal (but see paragraph 19.6 regarding existing construction)

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system

- interlinked mains wired smoke alarms with integral battery back-up located in the escape route at ground and first floor levels; and
- additional interlinked smoke alarms with integral battery back-up located in any cellar

Lighting of escape routes (paragraphs 23-24)

No requirement for emergency escape lighting, but conventional artificial lighting is required

Fire fighting equipment (see paragraph 25)

It is recommended good practice to provide a fire blanket in the kitchen

Fire safety signs (see paragraph 27)

No requirement

Surface finishes & floor coverings (paragraphs 28-29)

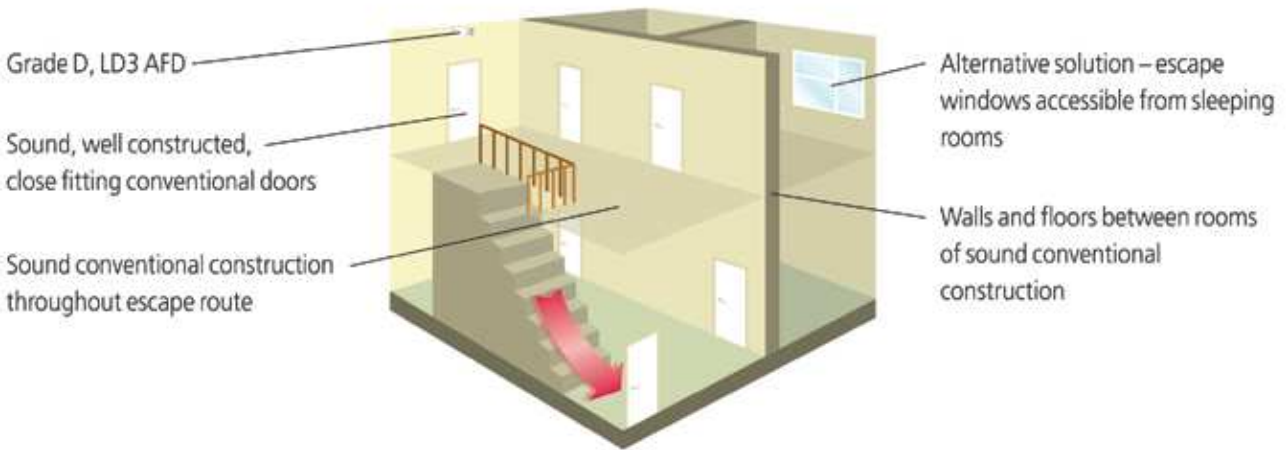
No requirement

Management and maintenance of fire safety

It is recommended that all doors are kept closed at night (see paragraph 32)

note 5: where construction standards are poor, travel distances are long or other higher risk factors are present, a 30-minute protected route may be required.

figure D1: single household occupancy up to two storeys



Case study D2: Single household occupancy of three or four storeys (see figure D2)

Escape routes (see paragraph 9)

No requirement for full 30-minute protected route ^{note 6}, but the escape route should have sound conventional construction and the travel distance should not be excessive

No requirement for fire doors ^{note 6}, but sound, well constructed and close-fitting conventional doors are required

Fire separation (see paragraph 19)

No requirement for additional fire resistance, but walls and floors should be of sound, conventional construction

If a basement/cellar is present, 30-minute separation between the cellar and the ground floor escape route is required

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system

- interlinked mains wired smoke alarms with integral battery back-up located in the escape route at all floor levels; and
- additional interlinked smoke alarms with integral battery back-up located in any cellar

Lighting of escape routes (paragraphs 23-24)

No requirement for emergency escape lighting, but conventional artificial lighting is required

Fire fighting equipment (see paragraph 25)

It is recommended good practice to provide a fire blanket in the kitchen

Fire safety signs (paragraph 27)

No requirement

Surface finishes & floor coverings (paragraphs 28-29)

No requirement

Management and maintenance of fire safety

It is recommended that all doors are kept closed at night (see paragraph 32)

note 6: where construction standards are poor, travel distances are long or other higher risk factors are present, a 30-minute protected route may be required.

Case study D3: Single household occupancy of five or six storeys (see figure D3)

Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire-resisting construction and FD30 doors to all risk rooms (without smoke seals – see paragraph 21.3). Secondary means of escape is required from top floor

Fire separation (see paragraph 19)

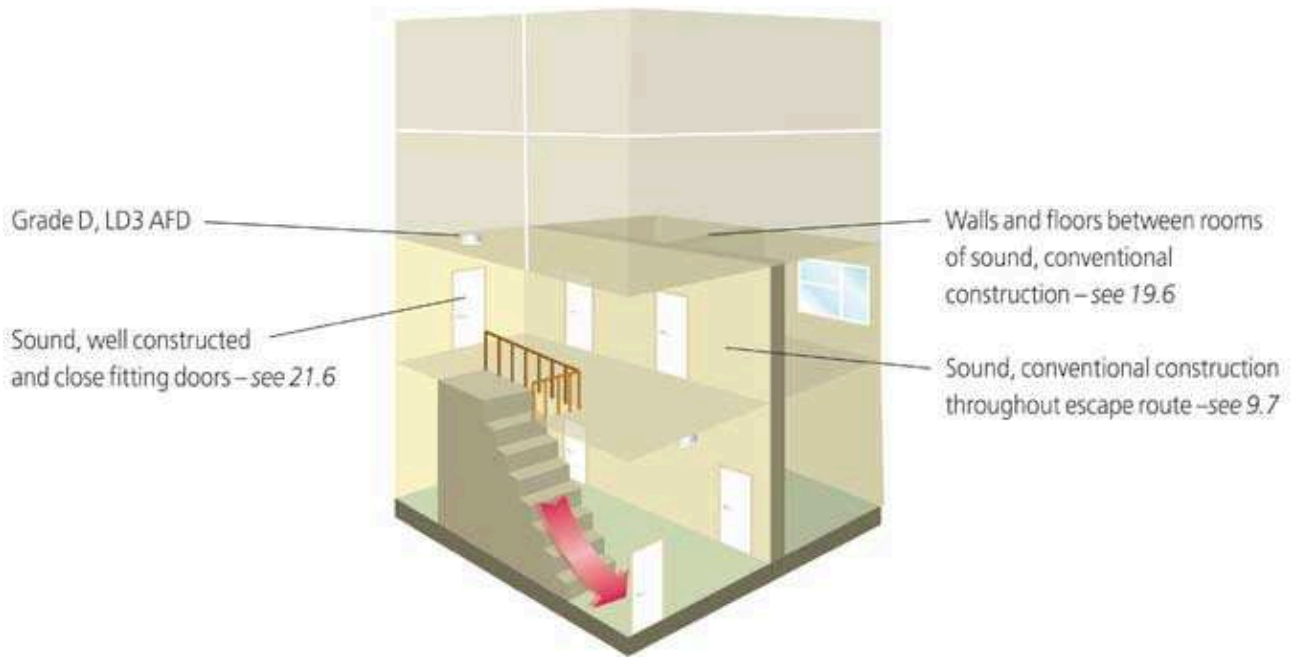
No requirement for additional fire resistance generally, but walls and floors should be of sound, traditional construction. Lateral fire-resisting separation of the top two floors from the remainder of the house is required. If a cellar is present, provide 30-minute separation between the cellar and the ground floor escape route

Fire detection and alarm system (see paragraph 22)

Grade A, LD3 system

- detection throughout common parts, in the kitchen (heat detection) and any cellar

figure D2: single household occupancy, four storeys



Lighting of escape routes (paragraphs 23-24)

No requirement for emergency escape lighting, but conventional artificial lighting is required

Fire fighting equipment (see paragraph 25)

It is recommended good practice to provide a fire blanket in the kitchen

Fire safety signs (see paragraph 27)

Directional fire exit signs indicating way to secondary means of escape

Surface finishes & floor coverings (paragraphs 28- 29)

No requirement

Management and maintenance of fire safety

(see paragraph 32)

35. Shared houses

35.1 There is no legal definition of a ‘shared house’ and so this term can sometimes cause confusion. Whilst shared houses fall within the legal definition of an HMO (see Appendix 1, paragraph A.32) and will be licensable where licensing criteria are met, it is recognised that they can often present a lower fire risk than traditional bedsit-type HMOs due to their characteristics.

35.2 For the purposes of this guidance, shared houses are described as HMOs where the whole property

has been rented out by an identifiable group of sharers such as students, work colleagues or friends as joint tenants. Each occupant normally has their own bedroom but they share the kitchen, dining facilities, bathroom, WC, living room and all other parts of the house. All the tenants will have exclusive legal possession and control of all parts of the house, including all the bedrooms. There is normally a significant degree of social interaction between the occupants and they will, in the main, have rented out the house as one group. There is a single joint tenancy agreement. In summary, the group will possess many of the characteristics of a single family household, although the property is still technically an HMO as the occupants are not all related.

35.3 The exact arrangements will vary from house to house and this may result in ‘grey areas’ in determining whether a house is a true shared house which therefore presents a lower fire safety risk due to the mode of occupation. Each case will need to be considered on its merits.

35.4 Even if a property is occupied as a shared house, the fire risk may still increase if the property is of a non-standard layout or if the occupants present a higher risk due to factors such as limited mobility or drug/ alcohol dependency (see paragraph 9.3).

figure D3: single household occupancy of five or six storeys



35.5 Whilst all HMOs are still subject to the Housing Act 2004, the FSO does not apply to shared houses that meet the criteria set out above. This is because the occupants have exclusive use of the whole house.

35.6 However, the following two examples are intended to expand on this description and assist in making that judgment:

example 1

A two-storey house with kitchen and living room on the ground floor and bathroom on the first floor. The whole house is let to four tenants, A, B, C and D, who have exclusive possession of the whole house. The house will therefore be used as a private dwelling by A, B, C and D jointly, as domestic premises and the FSO will not apply.

The position will be different if there is not exclusive possession of the whole house, as follows:

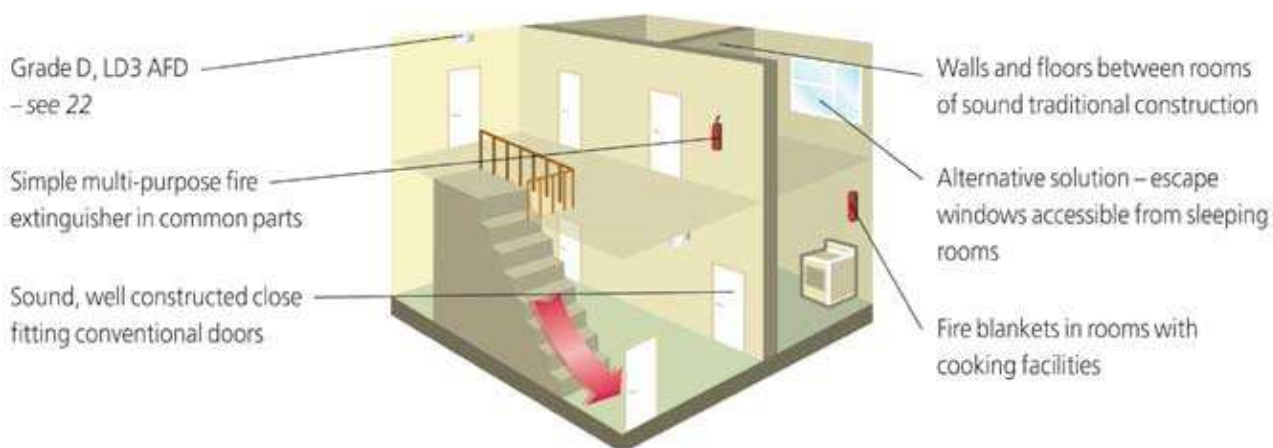
example 2

In July, the landlord lets the ground floor of the house (including the kitchen and living room) to tenants A and B, giving them a right to use a bathroom on

the first floor). In September he lets the first floor to tenants C and D, with a right to use the kitchen and living room (but not full possession of the whole house). Then the ground floor will be treated as being used as a private dwelling because it includes the kitchen and living room but the first floor will not, because, although C and D have the right to use the kitchen and living room, it is not comprised in their tenancy agreement. They do not have exclusive possession of a dwelling and therefore the FSO will apply.

The following examples set out an approach to fire safety that may be appropriate in shared houses that present no additional risk factors (as explained above). Where additional risk factors are present then a higher standard of fire precautions may be necessary, having regard to the fire risk assessment.

figure D4: shared house up to two storeys



Case study D4: Shared house of no more than two storeys

Escape routes (see paragraph 9)

No requirement for full 30-minute protected route ^{note 7}, but the escape route should have sound, traditional construction and should not pass through risk rooms. No requirement for fire doors ^{note 7}, but sound, well constructed and close-fitting conventional doors are required. Alternatively, provide suitable escape windows from bedrooms and living rooms (see paragraph 14)

Fire separation (see paragraph 19)

No requirement for additional fire resistance, but walls and floors should be of sound, traditional construction. If a basement/cellar is present, 30-minute separation between the cellar and the ground floor escape route is the ideal, but see paragraph 19.6 regarding existing construction

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system:

- interlinked mains wired smoke alarms with integral battery back-up located in the escape route at all floor levels;
- additional interlinked heat alarm with integral battery back-up located in the kitchen;
- additional interlinked smoke alarm with integral battery back-up located in the lounge; and
- additional interlinked smoke alarms with integral battery back-up located in any cellar.

Lighting of escape routes (paragraphs 23-24)

No requirement for emergency escape lighting, but conventional artificial lighting is required

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in the kitchen
Simple multi-purpose fire extinguisher in the hallway recommended

Fire safety signs (see paragraph 27)

No requirement

Surface finishes & floor coverings (paragraphs 28-29)

No requirement

Management and maintenance of fire safety

It is recommended that all doors are kept closed at night (see paragraph 32)

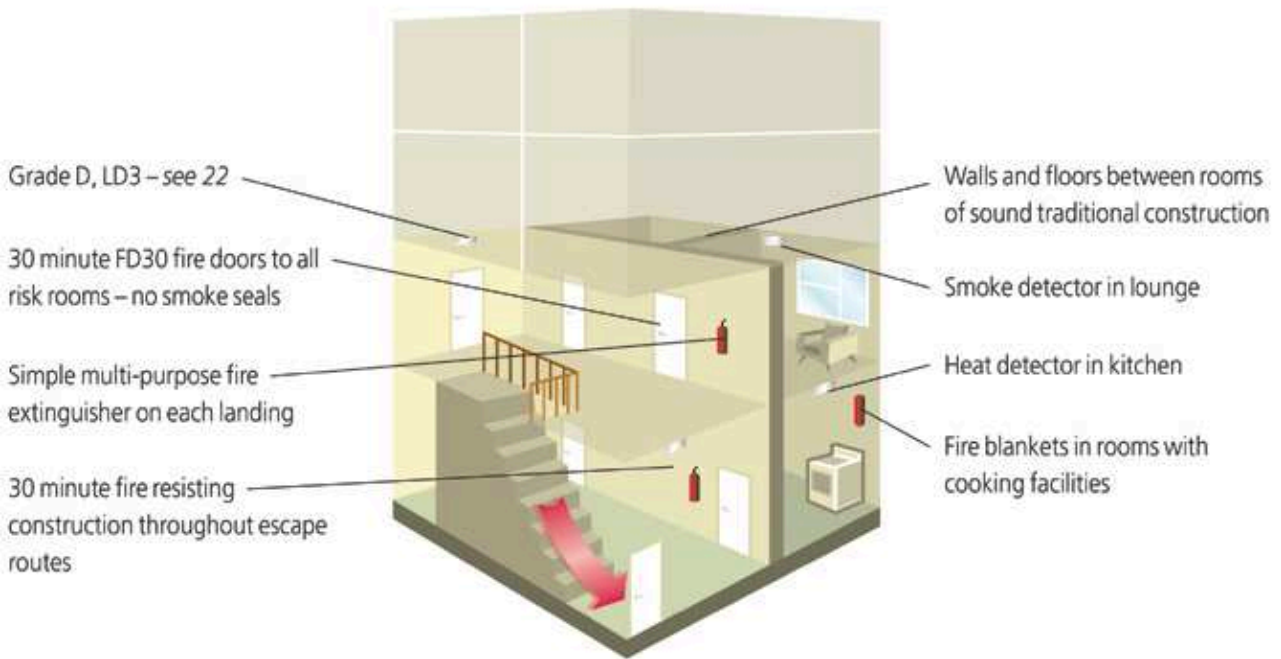
note 7: where construction standards are poor, travel distances are long or other higher risk factors are present, a 30-minute protected route may be required.

Case study D5: Shared house of three or four storeys (see figure D5)

Escape routes (see paragraph 9)

30-minute protected route ^{note 8}, is required, including 30-minute fire-resisting construction and FD30 doors to all risk rooms (without smoke seals – see paragraph 21.3). Travel distance must not be excessive

figure D5: shared house, three or four storeys



Fire separation (see paragraph 19)

No requirement for additional fire resistance, but walls and floors should be of sound, traditional construction. If a cellar is present, 30-minute separation is required between the cellar and the ground floor escape route

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system:

- interlinked mains wired smoke alarms with integral battery back-up located in the escape route at each floor level;
- additional interlinked heat alarm with integral battery back-up located in the kitchen;
- additional interlinked smoke alarm with integral battery back-up located in the lounge; and
- additional interlinked smoke alarms with integral battery back-up located in any cellar.

Lighting of escape routes (paragraphs 23-24)

Emergency escape lighting required only if the route is long or complex or where there is no effective borrowed light

Conventional artificial lighting required

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in the kitchen
Simple multi-purpose fire extinguisher on each landing recommended

Fire safety signs (see paragraph 27)

Signage only required if the escape route is complex

Surface finishes & floor coverings (paragraphs 28-29)

No requirement

Management and maintenance of fire safety (see paragraph 32)

note 8: three-storey properties only: the ideal situation is for the escape route to be enclosed in 30-minutes fire resisting construction and FD30 fire doors. However, in existing three-storey shared houses of low risk it may be possible to accept existing walls and partitions if 20-minutes fire resistance can be achieved. This is likely to be met if walls and partitions are of sound, conventional construction. Sound lath and plaster construction should meet this requirement. Doors onto the escape route may be acceptable if they are of sound, solid construction, are close fitting and self-closing.

Case study D6: Shared house of five or six storeys (see figure D6)

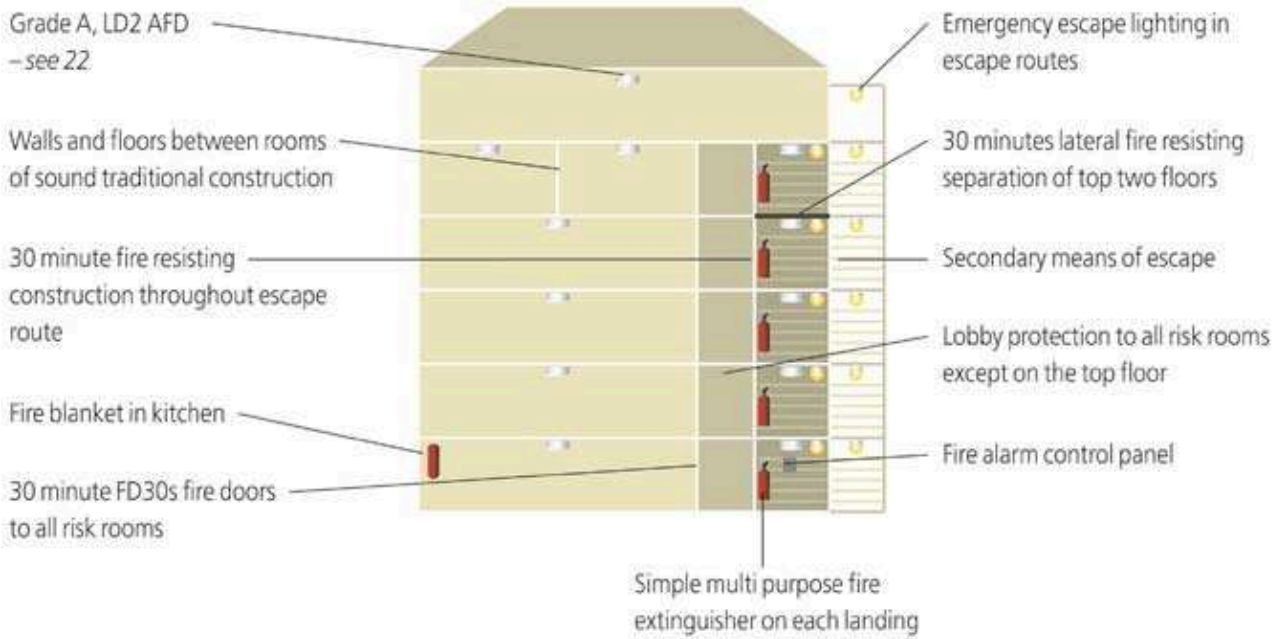
Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire-resisting construction and FD30S doors to all risk rooms (with smoke seals). Travel distance must not be excessive

Five storeys

Lobby protection to all floors except the top floor or secondary means of escape from top floor

figure D6: shared house of six storeys



Six storeys

Lobby protection to all floors except the top floor and secondary means of escape from top two floors

Fire separation (see paragraph 19)

No requirement for additional fire resistance generally, but walls and floors should be of sound, traditional construction. Lateral fire-resisting separation of the top floor (in five storey) or top two floors (in six storey) from the remainder of the house is required. If a cellar is present, provide 30-minute separation between the cellar and the ground floor escape route.

Fire detection and alarm system (see paragraph 22)

Grade A, LD2 system

- *detection throughout escape route and all risk rooms including living rooms, kitchen (heat detection) and any cellar*

Lighting of escape routes (paragraphs 23-24)

Emergency escape lighting required

Conventional artificial lighting required

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in the kitchen

Simple multi-purpose fire extinguisher on each landing recommended

Fire safety signs (see paragraph 27)

Signage only required if the escape route is complex or where there is a secondary means of escape

Surface finishes & floor coverings (paragraphs 28-29)

No requirement

Management and maintenance of fire safety (see paragraph 32)

36. Bedsit-type HMOs

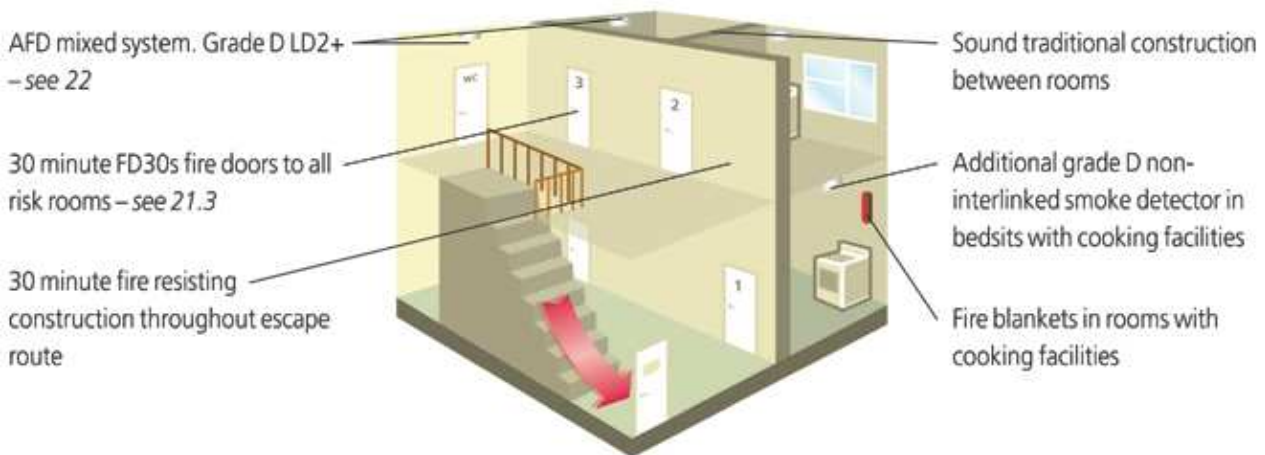
These are HMOs which have been converted into a number of separate non-self-contained bedsit lettings or floor-by-floor lets. Typically there will be individual cooking facilities within each bedsit, but alternatively there may be shared cooking facilities or a mixture of the two. Toilets and bathing/washing facilities will mostly be shared. There is unlikely to be a communal living or dining room. Each bedsit or letting will be let to separate individuals who will live independently, with little or no communal living between tenants. Each letting will have its own individual tenancy agreement and there will usually be a lock on each individual letting door.

Case study D7: Bedsit-type HMO of no more than two storeys (see figure D7)

Escape routes (see paragraph 9)

30-minute protected route ^{note 9} is required, including 30-minute fire-resisting construction and FD30S doors to all risk rooms. Travel distance must not be excessive

figure D7: bedsit-type HMO, two storeys



Fire separation (see paragraph 19)

No requirement for additional fire-resisting separation between units, but walls and floors should be of sound, traditional construction

Fire detection and alarm system (see paragraph 22)

Mixed system

Grade D, LD2 system

- interlinked mains wired smoke alarms with integral battery back-up located throughout the escape route

Where cooking facilities are sited within the bedsits:

- interlinked heat alarms with integral battery back-up located in each bedsit; and
- additional non-interlinked smoke alarm with integral battery back-up located in each bedsit.

Where cooking facilities are sited in shared kitchen, not within bedsits:

- interlinked smoke alarms with integral battery back-up located in each bedsit;
- interlinked heat alarms with integral battery back-up located in each communal kitchen; and
- additional interlinked smoke alarms with integral battery back-up located in any cellar.

Lighting of escape routes (paragraphs 23-24)

Emergency escape lighting required only if the route is long or complex or where there is no effective borrowed light

Conventional artificial lighting required

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in each bedsit with cooking facilities and in shared kitchens. Simple multi-purpose extinguisher on each floor in the common parts recommended

Fire safety signs (see paragraph 27)

Signage along escape route if the escape route is complex

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

note 9: a full 30-minute protected route is the preferred (ideal) option. However, in two-storey, normal risk HMOs the provision of suitable escape windows from all bedsit rooms may be acceptable in lieu of a fully protected route.

Case study D8: Bedsit-type HMO of three or four storeys (see figure D8)

Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire-resisting construction and FD30S doors to all risk rooms. Travel distance must not be excessive

Fire separation (see paragraph 19)

No requirement for additional fire-resisting separation between units, but walls and floors should be of sound, traditional construction

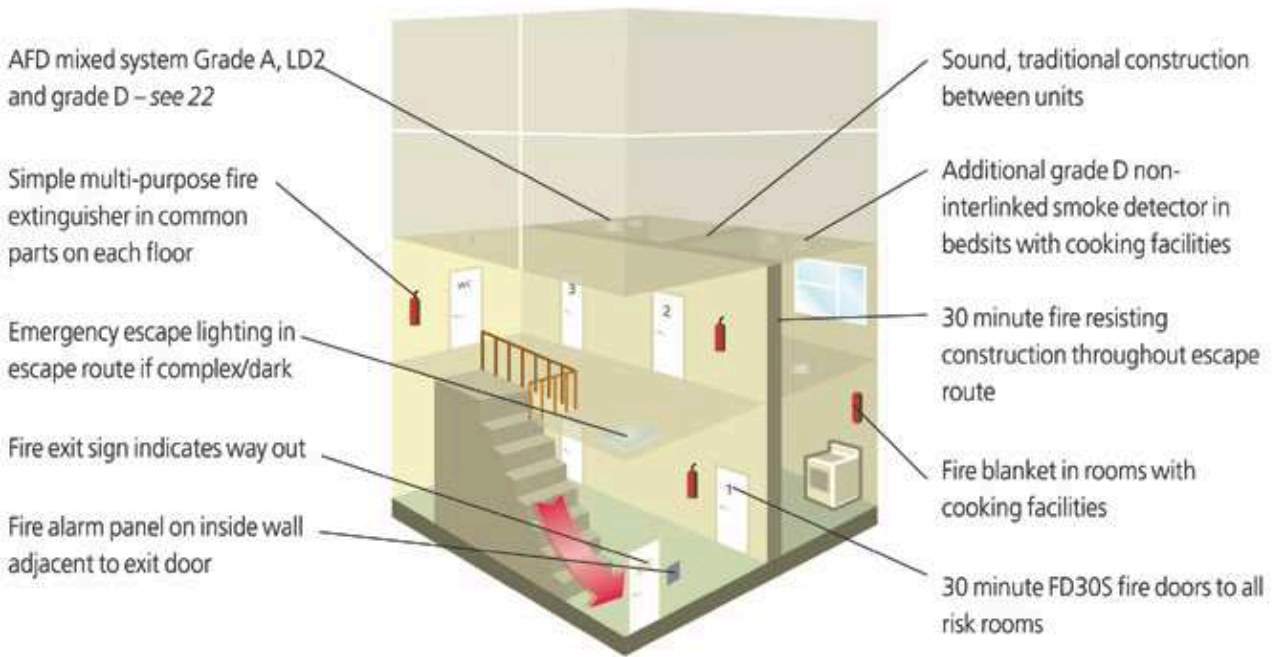
Fire detection and alarm system (see paragraph 22)

Mixed system

Grade A, LD2 system

- smoke detectors located throughout the escape route

figure D8: bedsit-type HMO, three or four storeys



- Where cooking facilities are sited within the bedsits:*
- interlinked heat detectors located in each bedsit; and
 - additional Grade D, non-interlinked smoke alarm with integral battery back-up located in each bedsit.

- Where cooking facilities are sited in shared kitchen, not within bedsits:*
- interlinked smoke detectors located in each bedsit;
 - heat detectors located in each kitchen; and
 - additional interlinked smoke detectors located in any cellar.

Lighting of escape routes (paragraphs 23-24)
Conventional lighting is required.

Emergency escape lighting maybe appropriate if route complex or there is no effective borrowed light

Fire fighting equipment (see paragraph 25)
Fire blanket to be provided in each bedsit with cooking facilities and in shared kitchens
Simple multi-purpose extinguisher on each floor in the common parts recommended

Fire safety signs (see paragraph 27)
Final exit sign and signage along the escape route if the escape route is complex

Surface finishes & floor coverings
(see paragraphs 28-29)

Management and maintenance of fire safety
(see paragraph 32)

Case study D9: Bedsit-type HMO of five or six storeys (see figure D9)

Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire-resisting construction, and FD30S doors to all risk rooms. Travel distance must not be excessive

Five storeys

Lobby protection to all floors except the top floor or secondary means of escape from top floor

Six storeys

Lobby protection to all floors except the top floor and secondary means of escape from top two floors

Fire separation (see paragraph 19)

30-minute fire separation between units of accommodation throughout
30-minute fire separation across the stairway between second and third floors and between fourth and fifth floors

Fire detection and alarm system (see paragraph 22)

Mixed system

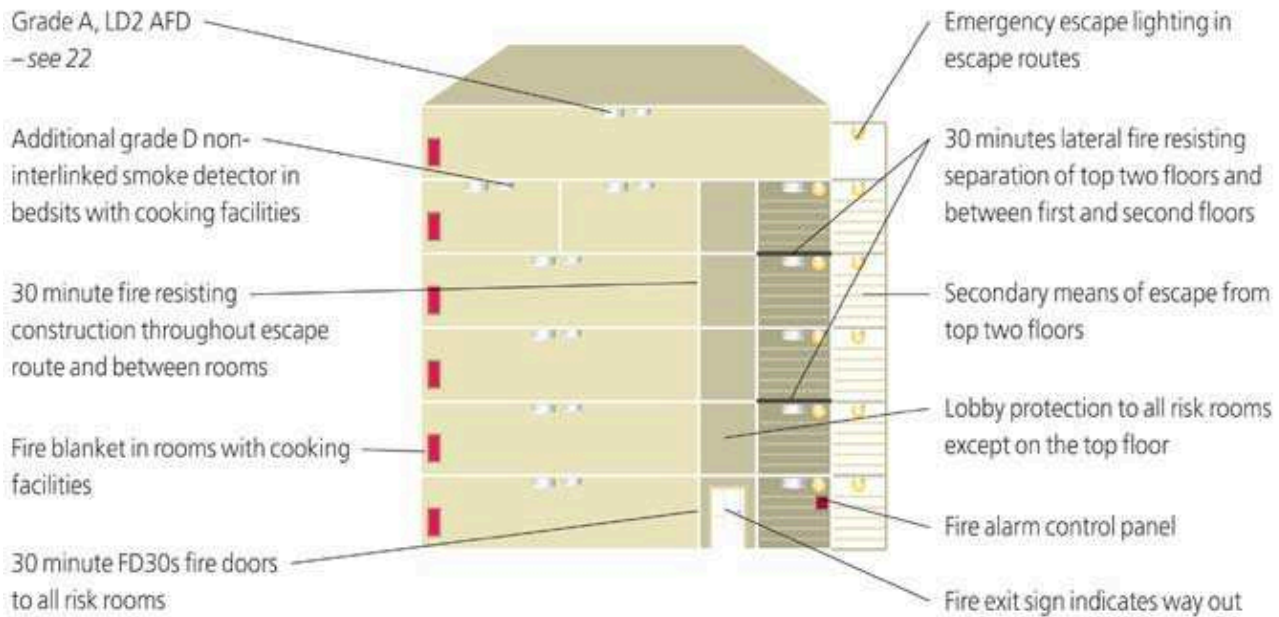
Grade A, LD2 system

- smoke detectors located throughout the escape route

Where cooking facilities are sited within the bedsits:

- heat detectors located in each bedsit;
- additional Grade D, non-interlinked smoke alarm; with integral battery back-up located in each bedsit.

figure D9: bedsit-type HMO, five or six storeys



Where cooking facilities are sited in shared kitchen, not within bedsits:

- smoke detectors located in each bedsit;
- heat detectors located in each kitchen; and
- additional interlinked smoke detectors located in any cellar.

Lighting of escape routes (paragraphs 23-24)

Emergency escape lighting required
Conventional artificial lighting required

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in each bedsit with cooking facilities and in shared kitchens
Simple multi-purpose extinguisher on each floor in the common parts recommended

Fire safety signs (see paragraph 27)

Final exit sign and directional signage along escape route

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

37. Houses/buildings converted to self-contained flats

Houses or buildings converted into self-contained flats where the conversion did not (and does not) meet the building standards under the Building Regulations 1991. Buildings that were converted to a standard meeting those regulations and which still meet them are not included here, as they will not require additional fire safety measures unless occupied in a manner other than intended under the original conversion scheme – for example, occupation of a flat as a flat in multiple occupation (see section E) – or where an additional risk has been introduced post-conversion.

Case study D10: Two-storey building converted into self-contained flats (see figure D10)

Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire-resisting construction and FD30S doors to rooms opening onto escape route. No requirement for fire doors within flats, but sound, well constructed and close-fitting conventional doors are required. Travel distance must not be excessive

It may be possible to accept an existing lower standard of protection in the protected route if there are suitable escape windows from bedrooms and living rooms (see paragraph 14)

Fire separation (see paragraph 19)

30 minutes fire resistance between flats throughout

figure D10: two storey building converted to flats



is the ideal, but on risk assessment there may be no requirement for additional fire-resisting separation between units providing walls and floors are of sound, traditional construction and additional compensatory detection is fitted.

Fire detection and alarm system (see paragraph 22)

A mixed system ^{note 10}

- Grade D: LD2 coverage in the common areas and a heat detector in each flat in the room/lobby opening onto the escape route (interlinked); and
- Grade D: LD3 coverage in each flat (non-interlinked smoke alarm in the room/lobby opening onto the escape route) to protect the sleeping occupants of the flat

Subject to fire separation (above)

Lighting of escape routes (paragraphs 23-24)

Conventional artificial lighting is required

Emergency escape lighting required if the route is long or complex or where there is no effective borrowed light

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in each kitchen (recommended good practice)

Simple multi-purpose extinguisher on each floor in the common parts (ground floor hallway only if no first floor common parts) recommended

Fire safety signs (see paragraph 27)

No requirement

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

note 10: where the fire risk assessment identifies higher than normal risk, the BS 5839: part 6, LD2 interpretation of “rooms or areas that present a high fire risk to occupants” may include living rooms, bedrooms and kitchens within the flats, thereby providing automatic detection in these rooms in addition to the common parts and internal entrance hall/lobby within flats. Where this is the case, this additional detection would be an additional grade D system within the flat (i.e. a mixed system overall) so as to avoid whole-house false alarms.

Case study D11: Three- or four-storey building converted into self-contained flats (see figure D11)

Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire-resisting construction and FD30S doors to rooms opening onto escape route. No requirement for fire doors within flats, but sound, well constructed and close-fitting conventional doors are required. Travel distance must not be excessive

Fire separation (see paragraph 19)

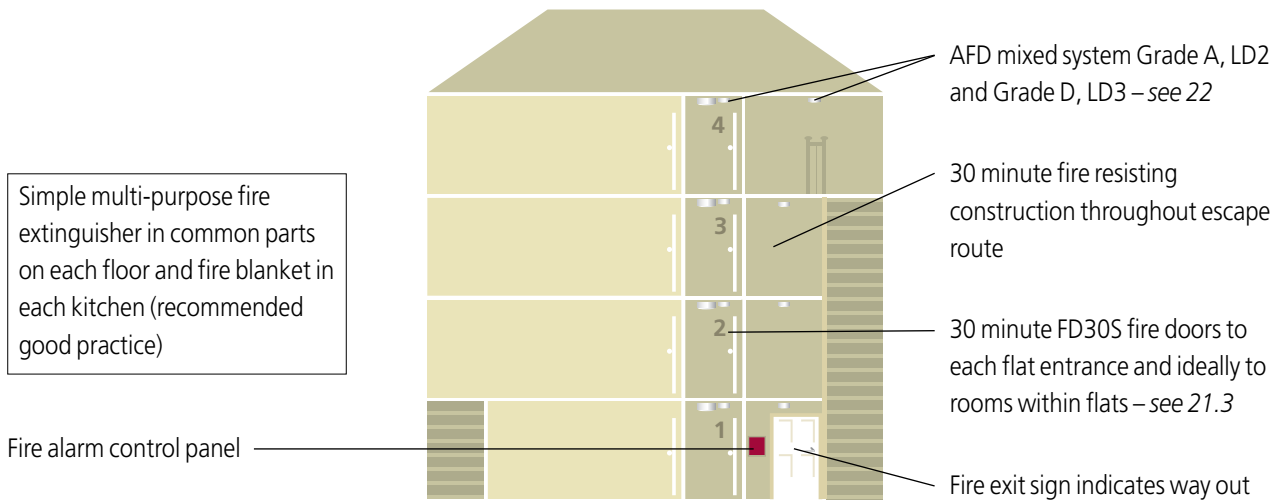
30 minutes fire resistance between flats throughout is the ideal, but on risk assessment there may be no requirement for additional fire-resisting separation between units providing walls and floors are of sound, traditional construction and additional compensatory detection is fitted

Fire detection and alarm system (see paragraph 22)

A mixed system ^{note 11}

- Grade A: LD2 coverage in the common areas and a heat alarm in each flat in the room/lobby opening onto the escape route (interlinked); and

figure D11: four storey building converted to flats



- *Grade D: LD3 coverage in each flat (non-interlinked smoke alarm in the room/lobby opening onto the escape route) to protect the sleeping occupants of the flat*
Subject to fire separation (above)

Lighting of escape routes (paragraphs 23- 24)

Conventional artificial lighting required
Emergency escape lighting required if the route is long or complex or where there is no effective borrowed light

Fire fighting equipment (see paragraph 25)

Simple multi-purpose extinguisher on each floor in the common parts
Fire blanket to be provided in each kitchen (recommended good practice)

Fire safety signs (see paragraph 27)

Final exit sign and signage along escape route if the escape route is complex

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

note 11: where the fire risk assessment identifies higher than normal risk, the BS 5839: part 6, LD2 interpretation of "rooms or areas that present a high fire risk to occupants" may include living rooms, bedrooms and kitchens within the flats, thereby providing automatic detection in these rooms in addition to the common parts and internal entrance hall/lobby within flats. Where this is the case, this

additional detection would be an additional grade D system within the flat (i.e. a mixed system overall) so as to avoid whole-house false alarms.

Case study D12: Five- or six-storey building converted into self-contained flats (see figure D12)

Escape routes (see paragraph 9)

30-minute protected route is required, including 30-minute fire resisting construction, FD30S doors to rooms opening onto escape route, and FD30 doors (self-closers not required) to risk rooms within flats. Travel distance must not be excessive

Fire separation (see paragraph 19)

30-minute fire separation between units of accommodation throughout
30-minute separation is required across the stairway between fourth and fifth floors and first and second floors

Fire detection and alarm system (see paragraph 22)

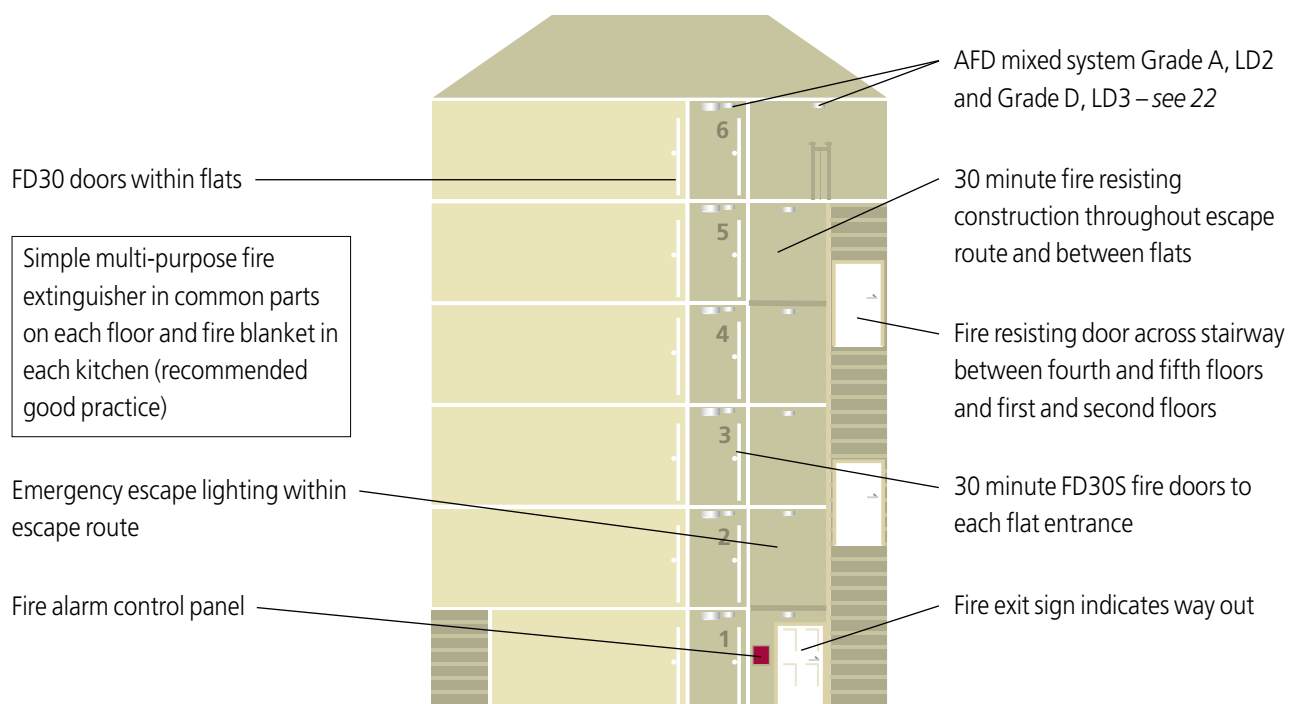
A mixed system ^{note 12:}

- *Grade A: LD2 coverage in the common areas and a heat detector in each flat in the room/lobby opening onto the escape route (interlinked); and*
- *Grade D: LD3 coverage in each flat (non-interlinked smoke alarm in the room/lobby opening onto the escape route) to protect the sleeping occupants of the flat.*

Lighting of escape routes (paragraphs 23-24)

Emergency escape lighting required
Conventional artificial lighting required

figure D12: six storey building converted to flats



Fire fighting equipment (see paragraph 25)

Simple multi-purpose extinguisher on each floor in the common parts

Fire blanket to be provided in each kitchen (recommended good practice)

Fire safety signs (see paragraph 27)

Final exit sign

Directional signage along escape route

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

note 12: where the fire risk assessment identifies higher than normal risk, the BS 5839: part 6, LD2 interpretation of “rooms or areas that present a high fire risk to occupants” may include living rooms, bedrooms and kitchens within the flats, thereby providing automatic detection in these rooms in addition to the common parts and internal entrance hall/lobby within flats. Where this is the case, this additional detection would be an additional grade D system within the flat (i.e. a mixed system overall) so as to avoid whole-house false alarms.

38. Flats in multiple occupation

Any self-contained flat which is occupied by three or more persons who do not form a single household. Fire safety standards will be enforceable under the housing health and safety rating system and some transitional and additional HMO licensing schemes.

Case study D13: Flat in multiple occupation occupying a single storey

Escape routes (see paragraph 9)

No requirement for full 30-minute protected route within flat ^{note 13}, but the escape route should have sound, traditional construction and should not pass through risk rooms. Travel distance must not be excessive

No requirement for fire doors within flat, but sound, well constructed and close-fitting conventional doors are required.

FD30S door to flat entrance door

(note: in converted or purpose-built flats, 30-minute construction and fire doors are likely to be in place)

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system:

- *interlinked mains wired smoke alarms with integral battery back-up located in the flat internal hallway; and*
- *additional interlinked heat alarm with integral battery back-up located in the kitchen*

Lighting of escape routes (paragraphs 23-24)

No requirement for emergency lightening, but conventional artificial lighting is required

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in the shared kitchen

Fire safety signs (paragraph 27)

No requirement

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

note 13: where construction standards are poor, travel distances are long or other higher risk factors are present, a 30-minute protected route may be required and/or LD2 fire detection may be appropriate.

Case study D14: Flat in multiple occupation occupying two storeys

Escape routes (see paragraph 9)

No requirement for full 30-minute protected route within flat ^{note 14}, but the escape route should have sound, traditional construction and should not pass through risk rooms. Travel distances must not be excessive. No requirement for fire doors within flat, but sound, well constructed and close-fitting conventional doors are required. FD30S door to flat entrance door. (note: in converted or purpose-built flats 30-minute construction and fire doors are likely to be in place)

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system:

- interlinked mains wired smoke alarms with integral battery back-up located in the escape route at each floor level;
- additional interlinked heat alarm with integral battery back-up located in the kitchen; and
- additional interlinked smoke alarm with integral battery back-up located in any communal lounge.

Lighting of escape routes (paragraphs 23-24)

Conventional artificial lighting required

Emergency escape lighting may be required if there is no effective borrowed light

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in the shared kitchen

Fire safety signs (see paragraph 27)

No requirement

Surface finishes & floor coverings

(see paragraphs 28-29)

Management and maintenance of fire safety

(see paragraph 32)

note 14: where construction standards are poor, travel distances are long or other higher risk factors are present, a 30-minute protected route may be required and/or LD2 fire detection may be appropriate.

39. Back-to-back houses

These houses typically back directly onto one another at the party wall and have other houses either side. This means that there is only one exit from the house, and the escape route inevitably passes through a risk room.

Case study D15: Three-storey back-to-back shared house with up to four occupiers (the stairs exit via the living room and the kitchen is off the living room (see figure 15)

Escape routes (see paragraph 9)

30-minute protected route at first and second floor level:

- 30-minute fire-resisting construction;
- FD30 doors (without smoke seals – see paragraph 21.3), self-closers not required, to risk rooms on first and second floors and to kitchen ^{note 15};
- escape window from first floor (see paragraph 14); and
- travel distances must not be excessive.

Fire separation (see paragraph 19)

30-minute fire separation between ground and first floors

FD30S fire door across staircase between ground and first floor

Fire detection and alarm system (see paragraph 22)

Grade D, LD3 system:

- interlinked mains wired smoke alarms with integral battery back-up located in the escape route at all floor levels;
- additional interlinked heat alarm with integral battery back-up located in the kitchen;
- additional interlinked smoke alarm with integral

- battery back-up located in the lounge; and
- additional interlinked smoke alarms with integral battery back-up located in the cellar.

Lighting of escape routes (paragraphs 23-24)

Conventional artificial lighting required

Emergency escape lighting may be required if there is no effective borrowed light

Fire fighting equipment (see paragraph 25)

Fire blanket to be provided in the kitchen

Fire safety signs (see paragraph 27)

No requirement

Surface finishes and floor coverings

(see paragraphs 28-29)

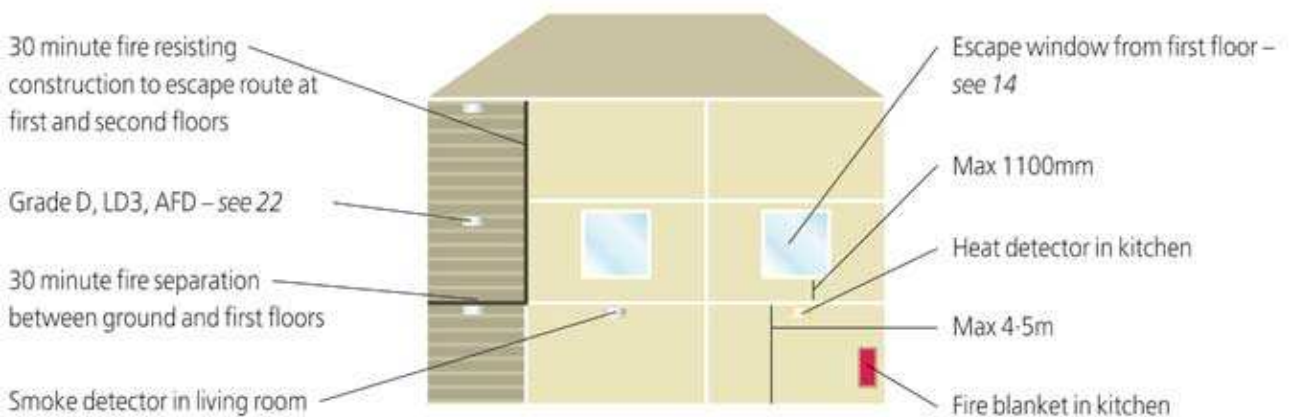
Management and maintenance of fire safety

(see paragraph 32)

note 15: where the house is occupied by a single household or as a low-risk shared house by a small number of occupiers, it may be possible to relax the requirement for full 30-minute fire resisting construction throughout the escape route and FD30 doors at first and second floor level. This is dependent on sound, traditional construction and sound, well constructed and close-fitting conventional doors. Solid timber doors and panelled doors of substantial construction may be acceptable but flimsy constructions and hollow infill-type doors (commonly known as 'egg-box') would not be. This can be difficult to assess and expert advice may be required. The door to the kitchen and the door separating ground and first floors should be at least FD30S in all cases.

Where the requirements for an escape window (see paragraph 14) cannot be met, alternative precautions may include construction of a 30-minute protected route through the house to the final exit, 60 minutes fire separation between ground and first floors, and conditions relating to arrangements for calling the fire and rescue service (such as a fire alarm linked to the fire brigade or to a monitoring agency). The installation of a domestic water suppression system may also be considered in such high-risk cases.

figure D15: three storey back-to-back shared house



APPENDIX 1: LEGISLATION AND STATUTORY GUIDANCE

- A.1 **Introduction:** This appendix provides a general overview of fire safety legislation for existing residential accommodation. It aims to provide a general working knowledge for the reader and set the context for this fire safety guidance. It does not provide an in-depth, detailed knowledge of the legislation or cover all details. References to further, detailed reading are provided, and those seeking detailed legal guidance are recommended to refer to those signposted references and seek specialist legal advice.
- A.2 The repeal of the Fire Precautions Act 1971 and the Housing Act 1985 altered dramatically the way that fire safety in existing residential accommodation is regulated. These old acts have been replaced by new legislation which, for the purposes of this guidance, is the Housing Act 2004 and the Regulatory Reform (Fire Safety) Order 2005 (FSO).
- A.3 The Housing Act 2004 introduced the housing health and safety rating system (HHSRS), along with licensing provisions for certain larger houses in multiple occupation (HMOs) and management regulations for all HMOs. The HHSRS is the principal tool for assessing fire safety risk and regulating standards in all types and tenures of residential accommodation. HMO licensing conditions provide specific regulation of fire safety standards for HMOs in the private rented sector. Guidance under this legislation for housing providers and local housing authorities is contained in both the Housing Health and Safety Rating System Operating Guidance and in secondary legislation.
- A.4 The Regulatory Reform (Fire Safety) Order 2005 places duties on housing providers to risk-assess fire safety in their properties, to take adequate precautions to reduce that risk and to manage that risk which remains. The duties apply throughout a range of property types, but in HMOs, flats and maisonettes and sheltered accommodation in which personal care is not provided they apply only within the common areas (although housing providers need to consider the risk created within the private areas too). These duties are enforced by fire and rescue authorities. Guidance for housing providers and fire and rescue authorities is contained in HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide, although the recommendations contained in this guide should produce an equivalent level of safety.
- A.5 So, in respect of houses in multiple occupation (see paragraph 35 regarding shared houses) and in flats/maisonettes and sheltered accommodation, the new regulatory framework provides for dual enforcement between local housing authorities under the Housing Act 2004 and fire and rescue authorities under the Regulatory Reform (Fire Safety) Order 2005.
- A.6 In view of the dual enforcement regime, there is a clear need for consistent and coherent joint working arrangements between local housing authorities and fire and rescue authorities when applying the two sets of legislation. Uncoordinated regulation places a burden on housing providers and leads to confusion, duplication and unnecessary expense. With this in mind, in May 2007 the fire safety housing working group published a Protocol between local housing authorities and fire and rescue authorities to improve fire safety. This received Ministerial support from Baroness Andrews and Angela Smith MP and established a framework for joint working between the two sets of authorities. The protocol is being adopted by authorities around the country and has improved working arrangements and brought about a more coordinated approach. The protocol is included in this guidance at Appendix 2.
- A.7. The Housing Act 2004: part 1 – the housing health and safety rating system (HHSRS)**
- A.8 Part 1 of the Act introduced the housing health and safety rating system (HHSRS). This is the Government's new approach to evaluation of the potential risks to health and safety from any deficiencies identified in dwellings. Twenty-nine categories of potential hazard are considered, one of which (hazard 24) is fire. The HHSRS, although not in itself a standard, has been introduced as a replacement for the previous housing fitness standards which were contained in sections 604 and 352 of the Housing Act 1985 (both now repealed). Detailed guidance on the principles and application of the HHSRS are contained in Housing Health and Safety Rating System Operating Guidance and Housing Health and Safety Rating System Enforcement Guidance from Communities and Local Government.
- A.9 The underlying principle of the HHSRS is that any residential premises should provide a safe and healthy environment for any potential occupier or visitor.
- To satisfy this principle, a dwelling should be designed,

constructed and maintained with non-hazardous materials and should be free from both unnecessary and avoidable hazards. This holds true for the hazard of fire. The HHSRS provides a means of assessing dwellings which reflects the risk from any hazard and allows a judgment to be made as to whether that risk, in those particular circumstances, is acceptable or not. For the purposes of the HHSRS the assessment is solely about the risks to health and safety. The feasibility, cost or extent of any remedial action is irrelevant to the assessment. Some deficiencies may be quickly, easily and cheaply remedied, but while such deficiencies are present the threat to health or safety can be considerable.

A.10 The principle of the HHSRS is the assessment of risk presented by a dwelling, based on:

- the likelihood of an occurrence that could cause harm (in this case uncontrolled fire and associated smoke); and
- the probable severity of the outcomes of such an occurrence.

The system uses a formula to generate a numerical score, which allows comparison of different hazards – the higher the score, the greater the risk.

A.11 Under the HHSRS, the fire hazard covers threats from exposure to uncontrolled fire and associated smoke in a dwelling. It includes injuries from clothing catching alight on exposure to an uncontrolled fire, but does not include injuries caused by clothing catching alight from a controlled fire or flame, which may be caused by reaching across a gas flame or an open fire used for space heating.

A.12 The HHSRS is evidence-based. It is supported by extensive reviews of available literature and by detailed analyses of statistical data on the impact of housing conditions on health. The data used to make a fire hazard assessment is based on averages relating to persons aged 60 years or over who died or were injured in a house or flat fire in England and Wales in the years 1997, 1998 and 1999. The statistics are based on the number of such persons dying in fires as reported by coroners; the number of casualties and persons rescued at all fires attended by the fire and rescue services; and the number of additional persons injured from uncontrolled fire or flames reported by the Home Accident Surveillance System. There is a strong evidence base for the production of fire accident statistics, and due to large sample sizes we

can have a high level of confidence in the statistical averages. This statistical evidence is summarised in the fire hazard profile (24) section of the HHSRS Operating Guidance and is intended to inform professional judgment.

A.13 The recommendations in Parts C and D of this guidance have regard to the evidence and advice contained in fire hazard profile (24) of the HHSRS Operating Guidance.

A.14 Assessing fire hazard under the housing health and safety rating system

The HHSRS Operating Guidance details how to make an assessment of the fire hazard presented by a particular dwelling. The guidance offers the following information:

Potential for harm from fire: this sets out how the hazard of uncontrolled fire and associated smoke can affect health, outlining typical illnesses or injuries which may result from exposure to it. The prevalence of the hazard, and typical numbers of people affected nationally each year, are identified. The national statistical averages for the likelihood and spread of harms are given in a table, together with the average hazard scores. The averages are given for eight different ages and types of dwellings, and for all dwellings.

Causes: this section discusses potential sources of hazard from fire based on statistical evidence. It also discusses the contribution to a hazard which could be attributed to dwelling features and to human behaviour. This helps to assess whether any deficiencies identified in the dwelling could mean that the likelihood or spread of harms deviates from the average for the particular age and type of dwelling.

Preventive measures and the ideal: this gives an indication of measures and the optimum standard intended to avoid or minimise the hazard – that is, the optimum current at the time of preparation of the operating guidance (January 2004). This is informed by relevant British Standards (BS 5588, 5839 and 5446) and UK building regulations approved document B.

Relevant matters affecting likelihood and harm outcome: to assist enforcement officers, a check-list of

dwelling features which may affect the likelihood and the severity of the outcome is provided.

A.15 For multi-occupied buildings the assessment is made for each individual dwelling, including its associated shared rooms/areas and its access and escape route, not the building as a whole. This means that different hazard ratings can be expected for dwellings within the same building, depending, amongst other things, on the location of the dwelling unit within the building and any deficiencies to the individual dwelling. For example, a bedsit on the ground floor close to the final exit from the building would not be assessed the same as a bedsit on the third floor where the means of escape is the internal staircase (even if both bedsitting rooms are identical apart from their location). If a fire occurred, the harm caused to a victim in the third storey bedsit would be more severe than the person in the ground floor bedsit because there would be a greater distance of travel to safety.

A.16 The HHSRS uses judgments made by the inspector, based on an inspection of the dwelling, to generate a numerical score.

A.17 The procedure requires two judgments from the inspector. These are an assessment of:

- the likelihood, over the next 12 months, of an occurrence that could result in harm to a person aged 60 years or over (the vulnerable group); and
- the range of potential outcomes from such an occurrence.

Note: 'vulnerable group' is defined in the HHSRS operating guidance as "a range of people for whom the risk arising from a hazard is greater than for any other group in the population". It is restricted to age groups, no other vulnerability is considered. The assessment of likelihood of an occurrence resulting in harm is based on a member of this group living in the property. For the hazard of fire the vulnerable group is persons over the age of 60. The vulnerable group is only used to assess the hazard; when it comes to enforcement decisions the actual person living there is considered.

A.18 The judgment of the likelihood made by the inspector involves taking account of the conditions (deficiencies) identified during the inspection, in particular whether those conditions will increase or reduce the average likelihood of an occurrence.

A.19 Using the two judgments, the HHSRS formula detailed in the operating guidance is used to generate a numerical hazard score for the fire hazard at the subject premises. The numerical hazard score is a representation of the inspector's judgment rather than a precise statement of the risk. The scores potentially range from 0.2 to one million. In order to make this wide range manageable and to avoid too strong a focus on precise numerical scores, hazard bands have been devised which group ranges of scores, which can then be used for comparison. There are 10 hazard bands (A to J) with band J being the safest and band A the most dangerous.

A.20 The band into which a dwelling falls in respect of the fire hazard can then be used:

- to inform a landlord's decision as to whether action should be taken to reduce the hazard and to prioritise actions across a property portfolio; and
- to inform the enforcing authority's decision as to what, if any, enforcement action should be taken in respect of the property.

A.21 Worked examples of HHSRS assessments of fire hazard can be found on the LACORS website at www.lacors.gov.uk

A.22 Action following hazard assessment

The enforcing authority for the Housing Act 2004 is the local housing authority (LHA) (the local council). The Act gives LHAs powers to intervene where they consider housing conditions to be unacceptable on the basis of the impact of hazards on the health or safety of the most vulnerable potential occupant. Having carried out an assessment for the hazard of fire under HHSRS and where a significant hazard exists, the LHA must decide what (if any) action is appropriate.

A.23 Where a category one hazard is identified (i.e. a band A, B or C hazard – one that scores 1,000 or more under the HHSRS assessment outlined above), the LHA must take action to reduce the risk – it is under a statutory duty to do so under section 5 of the Act.

A.24 Where a category two hazard exists (i.e. a band D-J hazard – one which scores less than 1,000 under the HHSRS assessment outlined above) then the LHA has a power to act but is not under a duty to do so (under section 7 of the Act).

A.25 In many cases, notification of the existence of a hazard to the landlord by the LHA will be all that is required, as the landlord will take the appropriate action to reduce the hazard to an acceptable level. Guidance on how to do so can be found in Parts C and D of this guide. However, where self-regulation does not happen the LHA must consider what action is appropriate.

A.26 For both categories of hazard the enforcement options available are as follows (the first two can be suspended if appropriate):

Serve an improvement notice (section 11 or 12)
this requires the responsible person (usually the landlord or HMO licence holder) to carry out works which will at least remove the category one hazard.

Make a prohibition order (section 20 or 21)
this prohibits the use of part or all of the premises for various specified purposes.

Serve a hazard awareness notice (section 28 or 29)
this is purely advisory action where the LHA notifies the person responsible of the need for improvements.

Note: demolition orders and clearance areas are not discussed here.

A.27 In addition to the above, the following discretionary enforcement options are also available for category one hazards only where they present an imminent risk of serious harm to occupiers:

Emergency remedial action (section 40)
LHAs can themselves take remedial action to remove a hazard and recover reasonable expenses.

Emergency prohibition order (section 43)
LHAs can prohibit the use of all or part of a property.

In both cases the owner of the property will be able to appeal, but any appeal will not prevent the action from being taken or the prohibition being put into effect. These provisions may only be used where there is a category one hazard, the hazard involves an imminent risk of harm to any of the occupiers of these or other residential premises, and no management order is in force under part four of the Act.

If the LHA considers that the action it has taken under the above provisions has not proved satisfactory, it may subsequently take the same action again or take an alternative action.

A.28 Statement of reasons

Whichever type of action the LHA considers appropriate, it must prepare a statement of reasons explaining why it decided on that particular type of action rather than any other type.

A.29 Right of appeal

Except for hazard awareness notices, the recipient of any of the above enforcement actions has a right of appeal to the residential property tribunal (RPT). The LHA must include details of the right of appeal, how to appeal and the timescale for doing so with the notice when it is served. Further details on appeals can be found on the RPT website at www.rpts.gov.uk

A.30 Consultation with fire and rescue authorities

Before talking any of the actions outlined above in respect of a fire hazard in an HMO or in the common parts of flats, the LHA must consult with the FRA. For emergency remedial action or emergency prohibition this requirement applies only so far as it is practical to do so before taking those measures (section 10, Housing Act 2004).

A.31. The Housing Act 2004: part 2 – licensing of houses in multiple occupation

A.32 Introduction: the definition of house in multiple occupation (HMO) is contained in section 254 of the Housing Act 2004. The definition is complex, and for detailed understanding then the Act itself should be studied. For general purposes the definition can be summarised as follows.

A.33 A building or part of a building is an HMO if it meets every condition specified in one or more of four tests, or is subject to an HMO declaration:

The standard test

- a) it consists of one or more units of living accommodation which are not self-contained flats;
- b) the living accommodation is occupied by persons who do not form a single household;
- c) the living accommodation is occupied by persons as their only or main residence;

- d) their occupation of the living accommodation constitutes the only use of that accommodation;
- e) rents are payable or other consideration is provided in respect of at least one of those person's occupation; and
- f) two or more of the households who occupy the living accommodation share one or more basic amenity or the living accommodation is lacking in one or more basic amenity.

The self-contained flat test

A self-contained flat which meets all of (b) to (f) above.

The converted building test

A converted building consisting of one or more units which are not self-contained flats and:

- a) the living accommodation (the building) is occupied by persons who do not form a single household;
- b) the living accommodation is occupied by persons as their only or main residence;
- c) their occupation of the living accommodation constitutes the only use of that accommodation; and
- d) rents are payable or other consideration is provided in respect of at least one of those person's occupation.

Converted blocks

A converted block of self-contained flats converted to construction standards that did not comply with the requirements of the Building Regulations 1991 (SI 1991/2768) and:

- a) less than two thirds of the flats are owner-occupied;
- b) the living accommodation is occupied by persons who do not form a single household;
- c) the living accommodation is occupied by persons as their only or main residence;
- d) their occupation of the living accommodation constitutes the only use of that accommodation; and
- e) rents are payable or other consideration is provided in respect of at least one of those person's occupation.

HMO declarations

Where the occupation of a building or part of a building by persons who do not form a single

household does not constitute the only use of the accommodation but does constitute a significant use of that accommodation, the local authority may serve an HMO declaration notice. The LHA must serve the notice on the landlord or manager of the property within seven days of the decision to make the declaration. This action nullifies the requirement in the section 254 HMO definition that the occupation constitutes the only use of the accommodation. The recipient of an HMO declaration notice has a right of appeal to the residential property tribunal (RPT). Details on appeals are available at www.rpts.gov.uk

A.34 In summary

A building is an HMO if it:

- is occupied by more than one household and where more than one household shares (or lacks) an amenity such as a bathroom, toilet or cooking facilities;
- is occupied by more than one household and is a converted building, but not entirely self-contained flats (whether or not some amenities are shared or lacking);
- is converted self-contained flats but does not meet as a minimum standard the requirements of the 1991 Building Regulations, and more than one third of the flats are privately rented; or
- an HMO declaration has been made by the LHA under section 255 of the Housing Act 2004.

A.35 The term 'household' means either a single person or members of the same family who are living together. This includes people who are married or living together as married (including those in same-sex relationships). 'Family' means specific relatives: parents, grandparents, children and step-children, grandchildren, brothers, sisters, uncles, aunts, nephews, nieces or cousins. Foster children are also treated as part of their foster parents' household.

A.36 The term 'occupied' includes occupation by asylum seekers and migrant and seasonal workers, as a refuge by persons escaping domestic violence, or by students in higher or further education.

A.37 Schedule 14 of the Act exempts the following categories from the HMO definition:

- buildings controlled or managed by public sector bodies, ie:
 - local housing authorities

- registered social landlords
- police authorities
- fire and rescue authorities
- health service bodies;
- buildings occupied principally by students in full-time education and which are managed by the relevant educational establishment in conformity with any code approved under section 233 of the Act;
- buildings occupied by religious communities which are occupied principally for the purposes of a religious community whose principal occupation is prayer, contemplation, education or the relief of suffering (this category excludes converted block of flats to which section 257 applies);
- owner-occupied buildings;
- buildings occupied by only two persons; and
- buildings regulated by other legislation as specified in schedule 1 to The Licensing and Management of Houses in Multiple Occupation and Other Houses (Miscellaneous Provisions) (England) Regulations 2006 (SI 2006/373).

A.38 Licensable HMOs

If the above definition determines that a property is a HMO it is then necessary to consider whether it requires licensing. There are three ways in which part 2 or 3 licensing may apply to an HMO:

- 1) HMOs that fall within a mandatory licensing scheme. These are schemes which LHAs must operate under the duty contained in section 55 of the Act. The categories of HMO which fall within mandatory licensing are prescribed in The Licensing of Houses in Multiple Occupation (Prescribed Descriptions) (England) Order 2006. These are all HMOs comprising three storeys or more and occupied by five or more persons living in two or more separate households, unless the HMO has been temporarily exempted by the LHA or is being managed by it under a management order.
- 2) HMOs in areas that are designated by the LHA as subject to additional licensing schemes (under section 56 of the Act). In these cases the categories of HMO covered and the parts of the LHA district covered will be determined by the particular scheme. It will be necessary to contact the relevant LHA to ascertain whether there is an additional licensing scheme in place.
- 3) Finally, some local authorities may operate 'selective licensing' schemes within parts of their district under part 3 of the Act. The parts of the

local authority district covered will be determined by the particular scheme, and it will be necessary to contact the relevant local authority to ascertain these details.

Note: certain converted blocks of flats fall within the HMO definition. These are described in section 257 and are essentially those converted to a standard that does not comply with the building standards of the Building Regulations 1991 (and still do not comply) and of which less than two-thirds of the flats are owner-occupied. These flats fall within the HMO definition but are not subject to mandatory licensing. However, they may fall within an additional licensing scheme if the local authority has one. If in doubt, the local authority should be contacted for advice.

A.39 Suitability for licensing in respect of fire safety

The LHA cannot approve an application for an HMO licence until it is satisfied that the HMO is reasonably suitable for occupation or can be made so by the imposition of licensing conditions (section 64). It cannot be satisfied of this unless the HMO meets (or can meet) prescribed standards under section 65. The prescribed standards are contained in Statutory Instrument 2006 no. 373: The Licensing and Management of Houses in Multiple Occupation and Other Houses (Miscellaneous Provisions) (England) Regulations 2006. The standards require that "appropriate fire precaution facilities and equipment must be provided of such type, number and location as is considered necessary". No further guidance is given. If an HMO meets the relevant standards in this guidance, the LHA should be satisfied that appropriate fire precaution facilities and equipment are provided and the HMO is reasonably suitable for occupation in terms of fire safety, and that there is no impediment to granting the licence in fire safety terms.

A.40 Licence conditions relating to fire safety

Mandatory licence conditions

When granting a licence the LHA must attach certain mandatory conditions. These are laid down in schedule four to the Act as follows:

"A licence under part 2 or 3 must include the following conditions ... conditions requiring the licence holder –

- (a) to ensure that smoke alarms are installed in the house and to keep them in proper working order;
- (b) to supply the authority on demand, with a

declaration by him as to the condition and positioning of such alarms.”

This is the only fire safety related mandatory condition. It must be applied to all licences alongside any relevant discretionary conditions, as explained in the next section.

Discretionary licence conditions

Section 67 of the Act gives LHAs the discretion to attach such other conditions to an HMO licence as it considers appropriate in relation to a number of specified matters. These include:

“conditions requiring facilities and equipment to be made available in the house for the purpose of meeting standards prescribed under section 65” (see paragraph A.39); and

“conditions requiring, in the case of any works needed in order for any such facilities or equipment to be made available or to meet any such standards, that the works are carried out within such period or periods as may be specified in, or determined under, the licence.”

So LHAs may grant a licence with a condition attached that certain fire safety works are carried out within a specified period of time to satisfy them that the HMO is reasonably suitable for occupation in terms of fire safety under section 64 (“ensuring appropriate fire precaution facilities and equipment are provided of such type, number and location as is considered necessary”).

A.41 Two other considerations are important in terms of HMO fire safety licence conditions.

Where a category one or two hazard is identified in a licensable HMO, the Act is clear that the appropriate enforcement route to remove it is via part 1 (HHSRS). However, this rule does not preclude LHAs from attaching fire safety conditions (as described above) to the licence, even if this brings about the same result. This is dealt with in section 67:

“67 (4) As regards the relationship between the authority’s power to impose conditions under this section and functions exercisable by them under or for the purposes of part 1 (‘part 1 functions’) —

- (a) the authority must proceed on the basis that, in general, they should seek to identify, remove or reduce category one or category two hazards in the house by the exercise of part 1 functions and not by means of licence conditions;
- (b) this does not, however, prevent the authority

from imposing licence conditions relating to the installation or maintenance of facilities or equipment within subsection (2)(c) (section 65 prescribed standards for appropriate fire precaution facilities and equipment), even if the same result could be achieved by the exercise of part 1 functions.”

A.42 In practice, as a rule, where a LHA encounters a significant fire hazard (category one or two) in a licensable HMO it should seek to remove or reduce it using part 1 of the act (HHSRS). However, when granting a licence for an HMO it must satisfy itself that there are appropriate fire precaution facilities and equipment in the house. Where that is not the case, it may attach a condition to the licence requiring that works to ensure the facilities and equipment are installed within a specified time period. This practice will benefit landlords as well as the authority, because relying solely on the mandatory licence condition described in paragraph A.41 above may not provide adequate fire safety to meet the section 65 requirement. Such an approach may also leave a category one hazard in place, which will require further remedial works in the near future when the LHA discharges its duty to remove it under the Act. Achieving a comprehensive and reasonable standard of fire safety via the licensing condition will avoid works being carried out which will subsequently have to be upgraded or reversed.

A.43 A note of caution must be exercised in relation to licence conditions requiring works within the common parts of premises. Article 43 of the Regulatory Reform (Fire Safety) Order 2005 has the effect that any licence condition applied in the common parts of premises to which the order applies shall have no effect. Therefore, any licence condition may have no effect where a properly conducted risk assessment has indicated that a higher level of provision is necessary. In view of this, the terms of the Protocol between local housing authorities and fire and rescue authorities to improve fire safety should be followed in all cases when establishing licence conditions requiring works within the common parts of premises to which the order applies.

A.44 For properties falling within the HMO definition but outside the scope of licensing, enforcement of fire safety standards will fall under part 1 of the Housing Act 2004 and the Regulatory Reform (Fire Safety) Order 2005, and again the terms of the protocol should be followed.

A.45 HMO management regulations

A.46 *The Management of Houses in Multiple Occupation (England) Regulations 2006 and The Licensing and Management of Houses in Multiple Occupation (Additional Provisions) (England) Regulations 2007* place requirements on the managers of all HMOs (whether licensable or not) in respect of fire safety. (The latter Regulations apply to converted blocks of flats to which section 257 of the Housing Act 2004 applies and the former apply to all other HMOs). Similar regulations apply in Wales. The purpose of the management regulations is not to require additional fire safety precautions but to ensure that existing precautions are properly maintained.

A.47 Regulation 4 (5) places specific duties on managers of HMOs in respect of fire safety. The manager must ensure that:

- all means of escape from fire in the HMO are kept free from obstruction and maintained in good order and repair;
- any fire fighting equipment and fire alarms are maintained in good working order; and
- all notices indicating the location of means of escape from fire are displayed in positions within the HMO that enable them to be clearly visible to the occupiers (unless the HMO has four or fewer occupiers).

A.48 Regulation 10 (11) places specific duties on occupiers of HMOs in respect of fire safety. Every occupier of the HMO must:

- conduct themselves in a way that will not hinder or frustrate the manager in the performance of their duties;
- allow the manager, for any purpose connected with the carrying out of any duty imposed on them by these regulations and at all reasonable times, to enter any living accommodation or other place occupied by that person;
- provide the manager, at their request, with any such information as they may reasonably require for the purpose of carrying out their duties;
- take reasonable care to avoid causing damage to anything that the manager is under a duty to supply, maintain or repair under these regulations; and
- comply with the reasonable instructions of the manager in respect of any means of escape from fire, the prevention of fire and the use of fire equipment.

A.49 Regulation 6 (7) places specific duties on managers of HMOs in respect of gas and electrical safety. These closely affect fire safety. The manager must:

- supply to the LHA, within seven days of receiving a request in writing from them, the latest gas appliance test certificate in relation to the testing of any gas appliances in the HMO by a recognised engineer;
- ensure that every fixed electrical installation is inspected and tested at intervals not exceeding five years by a person qualified to undertake such inspection and testing;
- obtain a certificate from the person conducting that test, specifying the results of the test; and
- within seven days of receiving a request in writing for it from that authority.

A.50 There is no provision for service of notice requiring works to remedy management failings under these regulations, but failure to comply with the regulations is a criminal offence under section 234(3) of the Housing Act 2004. Offences carry a level 5 fine on conviction (maximum £5,000 per offence). Both landlords and tenants may be prosecuted for contravening the regulations.

A.51. The Regulatory Reform (Fire Safety) Order 2005

A.52 Article 6 of the FSO specifically states that it does not apply to domestic premises except where the sharing of living accommodation e.g. a kitchen, means that the residential unit cannot properly be described as a dwelling. The exception is the prohibition order power, which is available for domestic premises except for those occupied as a single private dwelling. Domestic premises are defined in the order as premises occupied as a private dwelling.

So the FSO does apply to:

- the common parts of HMOs (but not 'shared houses') (see paragraph 35);
- the common parts of buildings containing flats and maisonettes; and
- the common parts of sheltered accommodation.

However, it does not apply to the individual flats, maisonettes, bedsits or residential units themselves. The FSO is enforced by the local fire and rescue authority (FRA) but it must consult the LHA before taking enforcement action.

- A.53 The FSO places a duty on the responsible person to take such general fire precautions as will ensure, as far as is reasonably practicable, the safety of all relevant persons. Relevant persons include anyone lawfully on the premises and those in the vicinity of the premises who would be affected by any fire at the premises. All persons within an HMO are likely to be considered relevant persons. The responsible person is the person having control of the premises, so will usually be the landlord or manager of the premises. Any other person who has a degree of control over the premises will share the responsible person's duties to the extent of that control. This includes a contractor maintaining or repairing the premises, in relation to the works he or she is obliged to carry out.
- A.54 General fire precautions include, where necessary:
- measures to reduce the risk of fire occurring;
 - measures to reduce the spread of any fire through the premises;
 - measures in relation to the means of escape;
 - measures to ensure the means of escape can be safely used at all times;
 - fire fighting measures;
 - means of fire detection and warning;
 - action to be taken in the event of fire; and
 - mitigating the effects of fire.
- A.55 In order to comply with the duties imposed by the FSO, the responsible person must carry out a fire risk assessment to identify what fire hazards exist at the premises and what measures have been taken (or will be taken) to minimise the risk. The risk assessment must pay particular attention to those at special risk, such as disabled persons, elderly persons, children, or those with special needs. Any other specific risks should be noted, for example the presence of dangerous substances at the premises. These details should be recorded and are known as 'significant findings'. They must be recorded if the premises are a licensed HMO or if there are five or more people employed by the business as a whole (not necessarily at the premises being assessed). A fire risk assessment must be carried out irrespective of the requirement to record the significant findings. The responsible person must ensure that a competent person(s) carries out any necessary fire prevention or protection works identified by the risk assessment (someone with enough training and experience, knowledge and other qualities to be able to implement the measures properly). This could, in many cases, be the responsible person themselves. The responsible person must also
- give all tenants and other relevant persons information on risks identified in the risk assessment and information on fire safety measures and procedures for the premises. All fire safety measures at the premises must then be subject to a proper system of maintenance by a competent person so as to be kept in efficient working order and in good repair. The risk assessment must be regularly reviewed to ensure that it is kept up to date.
- A.56 "In practice, it is very unlikely that a properly conducted fire risk assessment, which takes into account all the matters relevant for the safety of persons in case of fire, will conclude that no fire precautions (including maintenance) are necessary" source: Regulatory Reform (Fire Safety) Order, guidance note no. 1: enforcement (Communities and Local Government).
- A.57 The relevant enforcement agencies are defined in article 25 of the FSO, but in the types of premises covered by this guide this will usually be the fire and rescue authority (FRA). Inspectors enforce the provisions of the FSO and have certain powers to require information and to enter premises. Enforcement actions which may be taken under the order are as follows:
- Serve an alterations notice (article 29)
this is used where the FRA consider premises to be high risk or to have the potential of becoming high risk should alterations be made or change of use occur. It requires the responsible person to notify the LHA before making any such changes.
- Serve an enforcement notice (article 30)
where the FRA is of the opinion that the responsible person has failed to comply with any provision of the FSO or is dissatisfied with the risk assessment or action taken under it, it may serve an enforcement notice on that person, specifying the steps required to remedy the failure.
- Serve a prohibition notice (article 31)
where the FRA is of the opinion that the use of a premises involves or will involve a risk to relevant persons so serious that use of the premises ought to be prohibited or restricted, it may serve a prohibition notice.
- Note:** the article 31 prohibition notice power is unique in that it can be applied to any or all parts

of the premises covered by this guide, including the individual units of accommodation, whereas all other powers under the FSO apply only to the common parts.

A.58 Failure to comply with any duty imposed by the FSO or the requirements of an alterations notice, enforcement notice or prohibition notice is a criminal offence under article 32 of the FSO and carries a level 3-5 fine on conviction (£1,000 and £5,000 maximum respectively). There is a right of appeal to a magistrates' court against any notice.

A.59 Parts C and D of this guide give guidance on how to comply with the general fire safety duties required under the FSO as well as meeting other regulatory requirements.

A.60 More detailed guidance on compliance with the Regulatory Reform (Fire Safety) Order 2005 can be found in HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide. Download it from www.communities.gov.uk/publications/fire/firesafetyrisk4

A.61 The Furniture and Furnishings (Fire) (Safety) Regulations 1988

A.62 The Furniture and Furnishings (Fire) (Safety) Regulations 1988 (as amended) set levels of fire resistance for domestic upholstered furniture, furnishings and other products containing upholstery. The regulations cover most items of furniture found in rented accommodation including beds, mattresses, pillows and cushions. They do not apply to carpets, curtains or duvets. The regulations apply to all persons who supply furniture and furnishings in connection with accommodation in the course of a business. In general, this includes landlords, letting agents and managing agents.

A.63 All furniture within lettings commencing after 1 January 1997 must meet the fire resistance requirements of the regulations. However, the regulations do not apply to furniture made before 1950 or to re-upholstered furniture made before that date.

A.64 Since 1988 all new furniture (except mattresses and bed bases) have had to carry a permanent label stating that it complies with the fire resistance standards specified in the regulations. However, absence of such a

label does not mean that the furniture does not comply, as the label may have been removed after the furniture was supplied; some furniture manufactured before 1988 may comply with the requirements anyway.

A.65 Landlords and managing agents must ensure that the furniture supplied meets the fire resistance requirements, and the only practical way of doing so is to ensure that the furniture is labelled by the manufacturer in this way. If this cannot be ascertained, the furniture should be replaced.

A.66 The regulations are enforced by local authority trading standards departments, which can give further advice to landlords/managing agents regarding these requirements.

A.67 The Gas Safety (Installation and Use) Regulations 1998

A.68 The Gas Safety (Installation and Use) Regulations 1998 deal with the installation, maintenance and use of gas appliances, fittings and flues in domestic and certain commercial premises. They place duties on certain landlords to ensure that gas appliances, fittings and flues provided for tenants' use are safe. Essentially any lease under seven years is covered.

A.69 Landlords must ensure that gas fittings and flues are maintained in a safe condition. Gas appliances should be serviced in accordance with the manufacturer's instructions. If these are not available, then it is recommended that they are serviced annually.

A.70 Only a competent and registered engineer may carry out servicing or gas safety checks. This term means an engineer recognised by the Council of Registered Gas Installers as being competent to undertake such testing. This means British Gas engineers or (until 1 April 2009) engineers registered with CORGI. After that date, CORGI registrations will be replaced by CAPITA registrations.

A.71 Landlords must ensure that a gas safety check is carried out annually on each gas appliance/flue. Before any new tenancy starts they must make sure that such a check has been carried out within one year before the start of the tenancy (unless the appliances in the property have been installed for less than one year, in which case they should be checked within one year of their installation date). A record of each gas

safety check must be kept for at least two years and a copy must be given to existing tenants within 28 days of the check being completed, or to any new tenant before they move in (in certain cases there is an option to display the record in the property instead).

A.72 These requirements do not apply to any appliances owned by the tenant. The regulations are enforced by the Health and Safety Executive. Further advice can be obtained free from their gas safety advice line on 0800 300 363 or at www.hse.gov.uk

A.73 Electrical Equipment (Safety) Regulations 1994

A.74 The regulations require that all electrical equipment supplied by landlords is safe. In measuring safety, the landlord or managing/letting agent needs to ensure that the equipment complies with current UK requirements for safety of domestic electrical products. There is no mandatory requirement for the equipment to undergo any safety testing, but regulations require that any equipment supplied after 9 January 1995 shall be marked with the appropriate CE symbol. Where the safe use of the equipment relies upon the user being aware of any particular characteristic, suitable information or instruction booklets should be provided.

A.75 The regulations are enforced by local authority trading standards departments, which can provide further advice to landlords/managing agents regarding these requirements.

Appendix 2:

Protocol between local housing authorities and fire and rescue authorities to improve fire safety

Foreword by Communities and Local Government Ministers

It is always a priority to ensure safety from the risk of fire in the home, especially in mixed use premises, or where the occupiers share vital parts of the building with persons who are not members of the same family.

I welcome this protocol which clearly sets out the interrelationship between the two most important pieces of legislation relating to fire safety in homes, the Housing Act 2004 and the Regulatory Reform (Fire Safety) Order 2005. The collaborative working arrangements it promotes between Local Housing Authorities and Fire and Rescue Authorities will ensure proper partnerships at the local level. This will be of great benefit to the community, in ensuring that risk of fire in homes is reduced and helps protect against injury or loss.

When it comes to fire safety both the Local Housing Authority and the Fire and Rescue Authority have a range of responsibilities and it is important these are exercised with a common purpose and in a consistent way. There are a range of activities that statutory authorities can take to achieve this goal, from promoting awareness and good practice to enforcement action.

I would encourage you to adopt the principles set out in this protocol and ensure clear local arrangements are agreed and operational.

Baroness Andrews OBE, Under Secretary of State with responsibility for Housing

Angela Smith MP, Under Secretary of State with responsibility for Fire Safety

Introduction

This protocol establishes the principles and describes the joint working arrangements between Local Housing Authorities and Fire and Rescue Authorities to deliver the objective of improved fire safety. It is a framework which provides the basis for detailed local arrangements whilst encouraging collaboration at a regional level.

The introduction of the Housing Act 2004 and the Regulatory Reform (Fire Safety) Order 2005 (Fire Safety Order) has imposed an analogous duty on two statutory authorities to enforce certain fire safety provisions within such housing.¹

To promote the efficient use of resources, this protocol will identify discrete areas of inspection and enforcement, appropriate review and monitoring arrangements and provide for urgent or complex requests for assistance from either party. It seeks to provide all parties, as far as is reasonable practicable, with a measure of confidence that they are discharging their respective duties under legislation.

Fire and Rescue Authorities have a legal duty to enforce the Fire Safety Order in the common areas of all residential accommodation not forming a single private dwelling.² They acknowledge that the fire safety standards required

by Local Housing Authorities under the Housing Act 2004 will, in other than exceptional cases, achieve a similar level of fire safety for relevant persons as required under the Fire Safety Order.

Conversely, Local Housing Authorities are responsible for implementing the various licensing requirements of the Housing Act 2004 and utilising the Housing Health and Safety Rating System to identify and if necessary act upon, significant hazards found within all housing. They acknowledge that Fire and Rescue Authorities will monitor and enforce fire safety standards, in areas where they have legislative control, to a similar standard, in premises identified in Section 3 of this protocol. Fire and Rescue Authorities undertake to inform Local Housing Authorities of any serious non-fire matters that they encounter and identify.

Both authorities utilise a risk based enforcement approach and it is recognised that some housing providers, such as owners, landlords or managing agents, may not have sufficient competencies to undertake such risk assessments. In general, Local Housing Authorities undertake a risk assessment utilising the Housing Health and Safety Rating System whilst Fire and Rescue Authorities expect the responsible person, usually the housing provider, to undertake a risk assessment.

¹ A summary of the respective legislation is available as Appendix A

² The Fire Safety Order applies to all parts of an HMO when prohibition action under Article 31 is taken

These collaborative working arrangements, which support the Government's broader agenda for partnership working, will enable both Authorities to promote fire and certain other safety provisions within a broader range of premises than would have been possible if they had acted independently or undertaken joint inspections.

Nothing in this agreement shall be considered as creating a contractual relationship, a contract of employment or a relationship of principal and agent between the parties and shall not add to in any way the existing statutory duties of the parties. No party to this agreement shall hold itself out as being authorised to enter any contract on behalf of any other party or in any way bind any other party to the performance, variation, release or discharge of any obligation otherwise than in circumstances expressly or implicitly permitted by this agreement.

The signatories to this protocol are shown in Appendix B.

1. The underlying principles of this protocol are as follows:

- To ensure appropriate standards of fire and other safety provisions are provided and maintained in residential premises
- To develop data sharing arrangements, through established paths and in accordance with Section 8 of this protocol
- To assist landlords and other providers to understand the legal framework which they operate under
- To encourage opportunities for offering joint training and awareness sessions
- To recognise the needs and limitations of Fire and Rescue Authorities and Local Housing Authorities and to acknowledge that both authorities will always seek to act in good faith

2. Which authority should take the lead enforcing role for fire safety?

The table below lists the Authority that will normally take the lead in inspection and enforcement action in different types of property.

1 Single dwellings, including shared housing, (Fire risk assessment not required)	LHA
2 All House in Multiple Occupation (HMO) whether or not subject to mandatory, selective or additional licensing	LHA

3 All self contained flats, whether purpose built or converted	LHA
4 Premises with mixed commercial and associated residential accommodation and sheltered housing	FRA
5 Hostels ³ /B&B/Hotels	FRA
6 All multiple-occupied accommodation that is owned or managed by the LHA	FRA

This table provides a general guide – it cannot cover every possible situation and certain premises will fall under more than one category. Negotiations to take account of local residential stock may be necessary.

Enforcing authorities may wish to consider the opportunities afforded by The Local Government Act 1972 Section 101 in appropriate cases.

Nevertheless, Fire and Rescue Authorities are under an obligation to reduce fire deaths in line with their risk based enforcement policies and will undertake planned proactive inspections in any identified type of premises or in a particular locality as they deem necessary. Prior to starting any such series of inspection programmes, consultation should take place to ensure that duplication of inspection and enforcement does not occur. Any such programmes may, subject to local agreement take place individually, collaboratively or jointly and should complement the inspection programme of the Local Housing Authority.

Where necessary emergency action will be taken by either authority to reduce any immediate risk but further remedial enforcement will only be undertaken following consultation with the designated lead authority. Nothing in this protocol will prevent either authority undertaking specific individual monitoring or enforcement action if appropriate.

The legislative position and the provision and management of supported housing is complex and outside the scope of this protocol.

3. What will Local Housing Authorities do?

Local Housing Authorities will undertake, in line with their statutory requirements, monitoring and inspection of premises identified in Section 2 of this protocol.

³ Hostels generally have a requirement for the residents to have a particular need or dependency and do not provide permanent accommodation

They will enforce fire safety standards in accordance with the provisions of the Housing Act 2004, having regard to relevant documents published by the Government including the statutory operating and enforcement guidance on the Housing Health and Safety Rating System and in accordance with any guidance jointly agreed with the Fire and Rescue Authority.

Local Housing Authorities will, when taking enforcement action under the Housing Act 2004, have regard to the principles and requirements of the Fire Safety Order.

Although Local Housing Authorities may offer a suitable means of complying with fire safety requirements, they will also;

- Ensure that guidance for landlords of relevant multi occupied properties on undertaking their own risk assessments in accordance with the Fire Safety Order accompanies all statutory notices
- Ensure that the owner/landlord is afforded in writing the opportunity to bring forward alternative means of complying with the fire safety requirements in accordance with their own fire risk assessment. In most cases it is expected that this will be discussed with the owner/landlord prior to the service of any statutory notice
- Where such alternatives are brought forward by the owner/landlord, the Local Housing Authority will consult with the Fire and Rescue Authority

They will undertake consultation with Fire and Rescue Authorities in line with the criteria detailed in Section 5 of this protocol.

They will provide Fire and Rescue Authorities with relevant, timely and comprehensive data in an agreed format to enable those authorities to maintain adequate property and risk based data sets.

Local Housing Authorities will consider the use of the full range of powers under the Housing Act 2004, including Emergency Prohibition Orders, where appropriate.

Local Housing Authorities will provide Fire and Rescue Authorities with suitable out of hours contact details for their homelessness unit so that where appropriate consideration is given to ensure vulnerable persons are not left homeless as a result of emergency enforcement action.

4. What will Fire and Rescue Authorities do?

Fire and Rescue Authorities will undertake, in line with their risk-based policies, monitoring and inspection of premises identified in Section 2 of this protocol which fall under the scope of the Fire Safety Order.

They will enforce fire safety standards in accordance with the Fire Safety Order, having regard to relevant documents published by the Government including, Fire Safety Risk Assessment: Sleeping Accommodation (ISBN 1851128174) and in accordance with any guidance jointly agreed with the Local Housing Authority.

They will undertake consultation with Local Housing Authorities in line with the criteria detailed in Section 5 of this protocol.

They will provide Local Housing Authorities with relevant, timely and comprehensive data to enable those authorities to maintain adequate property and risk-based data sets.

They will provide Local Housing Authorities with information, within their scope of competency, of serious matters that may need to be addressed by those authorities. (This may include such information as apparent overcrowding, poor management or unsafe practises by tenants).

Fire and Rescue Authorities will undertake to inform Local Housing Authorities of any significant fire incident within premises covered by this protocol.

Fire and Rescue Authorities are emergency organisations which provide twenty-four hour cover. Information about dangerous fire safety conditions may come via complaints or post incident and may occur outside normal working hours. Fire and Rescue Authorities are under an obligation to take action in such situations. Where possible, and especially outside of normal office hours, efforts will be made to mitigate the dangerous conditions and Local Housing Authorities will be informed as soon as practicably possible.

Fire and Rescue Services would, in principle, be willing to support Local Housing Authorities at Residential Property Tribunal hearings by offering professional opinion on fire safety matters.

5. Consultation

Formal consultation between authorities should take place in accordance with the requirements of the Housing Act 2004 Section 10 and the Regulatory Reform (Fire Safety) Order 2005 Article 46.

Arrangements should be put in place to facilitate the following:

Strategic level consultation

Formal meetings at strategic management level to review procedural and policy issues. This group should also monitor the outcomes of the protocol and should meet at least every 6 months.

Tactical level consultation

Emergency situations – Consultation between Local Housing Officer and Local Fire Officer. (Where possible this should be between an identified and named link officer from each authority).

Non-emergency (such as proposals for inspection programs) – Discussions between named link officers, and where appropriate referred to strategic meetings.

Individual consultation

If a scheme of works for an individual property is in compliance with legislative requirements and any jointly agreed guidance then consultation can be deemed to have taken place. Depending on circumstances and the complexity of the requirements, written consultation may not always be necessary. Where alternatives to schemes are offered or problematic/non-standard premises are involved, full consultation should take place.

Where necessary, in complex premises, joint inspections may be undertaken to agree a suitable standard prior to the taking of enforcement action by the most appropriate authority.

6. Communication

Local communication channels will be established between each Fire and Rescue Authority and the respective Local Housing Authority.

Each authority undertakes, so far as they are able, to provide the other with assistance and information about their respective legislation to promote mutual understanding and efficient working.

7. Monitoring and evaluation

Any changes to this protocol, other than minor administrative changes, will be subject to approval at strategic level and the signatories to the protocol. An annual report will be produced jointly by parties to the protocol.

8. Data Exchange

Each Local Housing Authority and Fire and Rescue

Authority will establish local communication channels to exchange data.

Local Housing Authorities will provide data in an agreed format to Fire and Rescue Authorities about residential premises. This will enable Fire and Rescue Authorities to populate their premises databases. Subsequently, Local Housing Authorities and Fire and Rescue Authorities will provide six monthly updates of this data.

Both authorities will ensure that the information is marked as confidential and will not disclose it to other organisations without consent. Authorities will not use or disclose information supplied pursuant to this protocol without consulting the originating authority. All information whether held on manual files or computer/digital media will be disposed of as confidential waste.

Suggestions as to the scope and detail of this data are given in Appendix C.

9. Approval

The protocol will be approved and endorsed at a suitable strategic management level by both the Local Housing Authority and the relevant Fire and Rescue Authority.

Consultation should take place on a sub-regional basis with appropriate Private Sector Housing Groups.

Appendix A

Regulatory Reform (Fire Safety) Order 2005

The Regulatory Reform (Fire Safety) Order 2005 (Fire Safety Order) requires responsible persons to undertake a fire risk assessment to identify the general fire precautions they need to take to ensure, as far as is reasonably practicable, the safety of relevant persons from fire.

Having identified the general fire precautions necessary, the responsible person must implement them. Where five or more persons are employed or any form of licence or certification applies to the use of the premises, the significant findings of the fire risk assessment must be recorded.

The responsible person is identified as, the employer, the occupier or the owner as far as their control extends. In premises covered by this protocol which are not workplaces, the landlord or managing agent is likely to be the responsible person. Tenants must cooperate with the responsible person.

In most cases the local fire and rescue authority are charged with a duty to enforce the Fire Safety Order and have a range of enforcement options, from education and advice, through agreed action plans to formal enforcement notices and prohibition notices. Failure to comply with the Fire Safety Order may constitute a criminal offence.

In general, the Fire Safety Order applies to all areas of premises except those areas occupied as private domestic dwellings. Where there are areas used in common by the occupants of more than one such dwelling, the Fire Safety Order applies.

The Housing Act 2004

The Housing Act 2004 includes the requirement for local authorities to review housing conditions within their area with a view to identifying any action that may need to be taken about those conditions under the provisions contained within the Act.

In relation to this, Part 1 of the Housing Act 2004 replaces the existing housing fitness standard with an evidence based risk assessment procedure called the Housing Health and Safety Rating System.

The Housing Health and Safety Rating System is used to assess twenty nine categories of housing hazard and to provide a rating for each hazard. A hazard rating is indicated by a numerical score which is placed within one of ten bands from A to J. A numerical score within bands A to C are Category 1 hazards and scores in Bands D to J are Category 2 hazards.

The rating and category of hazard are used to inform decisions about what type of enforcement action a local authority may need to take in relation to the hazard. The types of enforcement action which are available to local authorities are outlined in the Act and include improvement notices, prohibition orders, hazard awareness notices, emergency remedial action, emergency prohibition orders, demolition orders, and slum clearance declarations.

'Fire' is one of the categories of hazard which is assessed under the system. It includes threats from exposure to uncontrolled fire and associated smoke at a dwelling.

Where a local authority has identified a prescribed fire hazard in a House in Multiple Occupation or in any common parts of a building containing one or more flats and intend to take enforcement action, the Act requires the local authority to consult the Fire and Rescue Authority for the area in which the House in Multiple Occupation or building is situated.

In the event of the authority proposing to carry out emergency measures the duty to consult the Fire and Rescue Authority is a duty so far as it is practicable before carrying out those emergency measures.

Part 2 of the Housing Act 2004 introduces a licensing scheme for Houses in Multiple Occupation (HMO). The Act introduces three types of licensing scheme which local authorities can use. These are mandatory HMO licensing, additional HMO licensing of properties not covered by the mandatory scheme and, under certain circumstances, selective licensing of all private rented property within a neighbourhood.

The Act outlines the conditions for the granting or refusal of licences by a local authority and this includes the suitability of a property for multiple occupation.

With regard to fire safety, this is further elaborated in the Licensing and Management of Houses in Multiple Occupation and other Houses (Miscellaneous Provisions) (England) Regulations 2006, schedule 3 of which states that 'appropriate fire precaution facilities and equipment must be provided of such type number and location as is considered necessary'.

Appendix B

Signatories to protocol

Authority	Name	Signature and date

Appendix C

Data exchange details

Database details will vary considerably but the following data fields are likely to be necessary.

LA URN (unique identifier if available)

Eastings

Northings

Property number

Property name

Address Line 1

Address Line 2

Locality

Town

Postcode

Number of floors

Risk Level

Compliance level

Number of units

Licensed

Category/Type

Landlord/responsible person/Contact

Property number

Address Line 1

Address Line 2

Locality

Town

Postcode

Telephone number

Appendix 3: Example form for recording significant findings from the fire assessment (alternative formats are acceptable)

Fire Risk Assessment – record of significant findings		
Risk assessment for Address:		Assessment undertaken by Date: Completed by: Signature:
Floor/unit (for large or multi-unit properties):	Multi-unit	Type of property?
Step 1 – Identify fire hazards		
Sources of ignition		Sources of fuel
Step 2 – People at risk		
Step 3 – Evaluate, remove, reduce and protect from risk		
(3.1) Evaluate the risk of the fire occurring		
(3.2) Evaluate the risk to people from a fire starting in the premises		
(3.3) Remove or reduce the hazards that may cause a fire		
(3.4) Remove and reduce the remaining risks to people from a fire		
Assessment review		
Next review date	Risk assessment completed by	Signature
Review outcome (where substantial changes have occurred a new record sheet should be used)		

Notes:

- (1) this risk assessment record of significant findings should refer to other plans, records or other documents as necessary.
- (2) the information in this record should assist you to develop an emergency plan, coordinate measures with any other 'responsible persons' in the building, train any staff and inform residents.

GLOSSARY

Some useful fire safety terms

AFD

Automatic fire detection and warning system. A system of interlinked smoke and heat detectors with integral or linked alarm sounders. The AFD system is designed to provide a reliable and constant means of detecting smoke or fire at the earliest possible stage and to sound an audible warning to occupiers, enabling them to escape before the fire develops to a dangerous stage. The sophistication and coverage of the system varies depending on risk. Design, installation and maintenance of AFD systems for premises covered in this guide are laid down in BS 5839: part 6, 1995.

Area of high fire risk

Room or other area which, because of its function, use or contents, presents a greater risk of fire occurring and developing than a standard risk room or elsewhere – for example large kitchens, boiler rooms and large storerooms.

Back-up supply

See stand-by supply

Bedsit HMO

A building which has been divided into individual non-self-contained lettings, let to unconnected individuals. Each bedsit letting will usually comprise only one room (sometimes more) which may contain cooking/food preparation facilities, washing facilities and living/sleeping space. Usually bathrooms and WCs are shared between a number of bedsits. The actual facilities contained within each bedsit letting will vary from property to property.

Circulation spaces

Passages, corridors, landings, hallways, lobbies and stairways.

Competent person

A person suitably trained and experienced so as to be able to properly examine, test and undertake any remedial action and to present the information in a report.

Competent and registered engineer

A term used in the HMO management regulations (see Appendix 1, paragraph A.46) to describe a person who is competent to inspect gas installations and provide a gas appliance test certificate. The term means an engineer

recognised by the Council of Registered Gas Installers as being competent to undertake such testing, but this is changing (see Appendix 1, paragraph A.70).

FD30 / FD30S

Purpose designed and built fire-resisting door assemblies with a minimum fire resistance of 30 minutes. The 30 figure indicates the door's performance time in minutes. A letter 'S' after the figure denotes a requirement for smoke seals to be fitted so as to restrict the passage of smoke, including cold smoke. Tested to either British or European standards.

Fire risk assessment

An organised and methodical look at a premises, the activities carried on there and the likelihood that a fire could start and cause harm to those in and around the premises. A requirement in premises to which the Regulatory Reform (Fire Safety) Order 2005 (FSO) applies.

FRA

Fire and rescue authority.

FSO

The Regulatory Reform (Fire Safety) Order 2005. See Appendix 1, paragraph A.51.

Final exit

The termination of an escape route from a building giving direct access to a place of safety such as a street, passageway, walkway or open space, and sited to ensure that persons can disperse safely from the vicinity of the effects of fire.

Fire-resisting door

Complete construction of door, frame, all door hardware (and assemblies intumescent products and smoke seals where appropriate) which has been tested to prove its fire resistance performance to a particular standard. See FD30 above.

Fire test report

The documentation received from a testing house detailing a test carried out on a particular product or construction and the fire resistance performance achieved by the product/construction in that test.

Flat in Multiple Occupation

A self-contained flat occupied by persons who do not form an occupation (FMO) single household.

High fire risk

See 'area of high fire risk' above.

HMO

House in multiple occupation, as defined in section 254 of the Housing Act 2004 (see Appendix 1, paragraphs A.33-A.38).

Intumescent strip

A strip of special material fitted around the edges of a fire door which swells to several times its original volume when subjected to heat. During a fire it will expand to fill the gap between the door and the frame providing a fire, heat and smoke resistant seal, thereby improving the door's fire resistance.

LHA

Local housing authority.

NICEIC

National Inspection Council for Electrical Installation Contracting.

Nuisance alarms

Alarms sounding in a system not caused by a genuine fire – may result from poor system design, occupier behaviour or a fault in the system.

Person having control

The person who receives the rack rent of the premises (whether on his own account or as an agent or trustee of another person) or would so receive it if the premises were let at a rack rent (Housing Act 2004, section 263).

Person managing

The person who, being an owner or lessee of the premises:

(a) receives (whether directly or through an agent or trustee) rents or other payments from—

(i) in the case of a house in multiple occupation, persons who are in occupation as tenants or licensees of parts of the premises; and

(ii) in the case of a house to which part 3 applies (see section 79(2)), persons who are in occupation as tenants or licensees of parts of the premises, or of the whole of the premises; or

(b) would so receive those rents or other payments but for having entered into an arrangement (whether in pursuance of a court order or otherwise) with another person who is not an owner or lessee of the premises by virtue of which that other person receives the rents or other payments; and includes, where those rents or other payments are received

through another person as agent or trustee, that other person.

Pictogram

A diagram conveying a message without the use of words.

Place of ultimate safety

A place outside of the building and away from it, where people will be safe and unaffected by the fire or its effects.

Plasterboard

A board of gypsum plaster enclosed between and bonded to two paper sheets.

Protected route

An escape route out of a building offering a degree of protection from fire and smoke emanating from rooms opening onto it. In premises covered by this guide it will typically be the usual staircase, landings and hallway of the house leading to a final exit. A protected route will provide varying degrees of protection from fire and smoke in accordance with risk (a 30-minute protected route, for example, will be enclosed with construction giving 30 minutes of fire resistance and containing 30-minute fire-resisting doors with smoke seals (FD30S)). Lower risk premises will have protected routes offering a lower standard.

Relevant persons

Relevant persons include anyone lawfully on the premises and those in the vicinity of the premises who would be affected by any fire at the premises.

Residential property tribunal (RPT)

The formal name given to a tribunal of two or three people set up by law under the provisions of the Rent Act 1977 and the Housing Act 2004. It is an independent decision-making body which is completely unconnected to the parties or any other public agency. The RPT is the tribunal which determines appeals against any enforcement actions taken under the Housing Act 2005. Weblink: www.rpts.gov.uk

Responsible person

The responsible person for the purposes of fire safety provision and maintenance at residential accommodation is the person having control, i.e. the landlord or person managing.

Risk analysis

An exercise to determine the level of risk of suffering harm from an activity based upon a range of criteria – see Part B.

Risk room

A room with a function, use or contents presenting a risk of fire occurring and developing; typically kitchens, shared living rooms, bedsit rooms. On risk assessment may include bedrooms in some cases. Excludes bathrooms and WCs containing no fire risk. See also 'area of high fire risk'.

Room sealed appliance

A gas appliance whose combustion system is sealed from the room in which the appliance is located and which obtains combustion air from outside the premises, and which also vents the products of combustion to open air outside the premises. Most modern gas boilers are room sealed appliances.

Self-contained flats

The meaning within this guide relates to conversion flats in single occupation with all amenities behind the front door.

Shared house

See paragraph 35.

Significant findings

The actions to be taken as a result of a fire risk assessment and details of anyone especially at risk. Must be recorded in some cases (see paragraph 10.1).

Smoke seal/strip

A rubber or synthetic strip fitted around the edge of a fire door to restrict the passage of smoke between the door and the frame. Doors requiring a smoke seal have the letter 'S' after their performance time in minutes in their designation (for example FD30S). The smoke resistance of the door when fitted with the strip will have been tested to standards in BS476: part 31.1, 1983.

Soffit

Underside of staircase, balcony, architrave or arch.

Spandrel

A vertical partition enclosing a staircase (usually found on the ground floor enclosing a staircase to the basement, or in the basement enclosing a staircase to the ground floor).

Stand-by supply

Battery power to fire alarm or lighting systems which cuts in if mains power fails.

Storey

In this guidance, for the purposes of fire safety, when counting the number of storeys the reader should count all floors from the level of the final exit to the topmost floor (include mezzanines as storeys). Where the final exit is located on the ground floor (or raised ground floor) any lower ground floor/basement/cellar should not be counted. Therefore, a house with a basement, ground and two upper floors with its entrance/final exit at ground floor level should be counted as a three-storey house. Note: this is a different convention to that in the HMO licensing definition (which counts cellars/basements) as this guidance is considering the distance of travel to the final exit as a factor in determining fire risk.

Suitably qualified Person

See 'competent person'.

Test report

See 'fire test report'.

Voids

Unused empty spaces within a building.

Vulnerable group

The HHSRS Operating Guidance defines a vulnerable group as "a range of people for whom the risk arising from a hazard is greater than for any other group in the population." It is restricted to age groups, no other vulnerability is considered. The assessment of likelihood of an occurrence resulting in harm is assessed based on a member of this group living in the property. For the hazard of fire, the vulnerable group is persons over the age of 60. The vulnerable group is only used to assess the hazard – when it comes to enforcement decisions then the actual person living there is considered.

Where necessary

The Regulatory Reform (Fire Safety) Order 2005 requires that fire precautions should be provided (and maintained) "where necessary". This means those which are needed to reasonably protect relevant persons from risks in case of fire. This will be determined by the findings of the risk assessment, including the preventative measures being taken. In practice, it is very unlikely that a properly conducted fire risk assessment, which takes into account all the matters relevant for the safety of persons in case of fire, will conclude that no fire precautions (including maintenance) are necessary.

Bibliography

The following references are included as a source of further detailed reading for specialists. It is not anticipated that landlords of property covered by this guide will need an in-depth knowledge of these publications and parts B, C and Appendix 1 to this guide should provide an adequate summary for most purposes.

Acts of Parliament and Statutory Instruments are available from The Office of Public Sector Information (OPSI) and via their website at www.opsi.gov.uk

British Standards are available from the British Standards Institution (BSI) from their Order Helpdesk on 0845 367 0242 and via their website at www.standardsuk.com

Health and Safety Executive publications are available from HSE books via their website at www.hsebooks.com

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Cornwall Housing Sub Group
Cumbria Local Authorities
Devon and Somerset Fire and Rescue Authority
Devon Chief Officers Housing Group
Dover District Council
East London sub-regional Housing Group
East Staffordshire Borough Council
Eastbourne Borough Council
Electrical Contractors Association
Elmbridge Borough Council
Epping Forest Borough Council
Essex Fire and Rescue Authority
Fire and Security Association
Fire Industry Association Ltd
Greater Manchester Fire and Rescue Service

Greater Manchester Local Authorities
Harlow Council
Hart Borough Council
Hastings Borough Council
Herefordshire Council
Herts & Beds Housing Group
Homestamp
Humber sub-region Local Authorities & Fire and Rescue Authority
Kent Local Authorities
Lancashire Fire and Rescue Authority
Lincoln City Council
London HMO Regulatory Group
Merseyside Local Authorities and Fire and Rescue Authority
Newcastle City Council
National Federation of Residential Landlords
North Yorkshire Local Authorities
Oxfordshire Fire and Rescue Authority
Oxfordshire Local Authorities
Peter Freeman Properties, Sheffield
Peterborough City Council
PJ Properties, Sheffield
Plymouth City Council
Residential Landlords Association
Rex Caplan, Landlord
Richard Clark
Richard Jones of Bury & Walkers Solicitors
Rushmoor Borough Council
Salisbury District Council
Sheffield & District Landlord Association
Sheffield City Council
Sheffield Student Landlord Association
South Yorkshire Local Authorities
Southampton City Council
Staffordshire Housing Technical Group
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The Local Government Association is the
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