Colchester

Guidance to Fire Safety in Houses in Multiple Occupation (HMOs)

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Contents

Introduction

Following the introduction of the Housing Act 2004, HMOs, like all other types of residential accommodation, are now risk assessed under the Housing Health and Safety Rating System (HHSRS). This looks at 29 specific hazards, one of which is 'Fire', and assesses the likelihood of the hazard causing harm to a predetermined vulnerable group and the extent of the potential harm outcomes. A calculation is then completed which grades the severity of the hazards found into bands A-J.

Bands A-C are classed as Category 1 hazards and the Authority has a duty to take action to eliminate them or reduce them to acceptable levels.

Bands D-J are classed as Category 2 hazards and the Authority has the power to take action to eliminate them or reduce them to acceptable levels.

As such, each HMO must be treated as an individual case and assessed on its own merits and therefore all encompassing standards are no longer possible. However, it is clear that many HMOs within Colchester will have similar layouts and constructions and so risks will not vary considerably. With this in mind, the following guidance will inform you of the types of fire safety measures that would normally be expected to reduce fire hazards to acceptable levels.

Colchester's Fire Safety Guidance has been developed in consultation with Essex Fire & Rescue Service and has regard to the HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide and the LACORS Housing Fire Safety Guidance on fire safety provisions for certain types of existing housing.

It is important to note that the following information is only guidance and should not be seen as an exhaustive list of possible fire safety requirements. A complete list of appropriate measures can only be provided following a full inspection, HHSRS assessment and through consultation with Essex Fire & Rescue Service. If you require more detailed information then please contact Private Sector Housing on 01206 282581.

2.0 Protected Escape Routes

In most situations corridors and stairs forming part of a protected escape route will be enclosed by 30 minute fire resisting construction.

Escape routes must be kept as sterile as possible with regard to sources of ignition, combustible materials or items that could hinder a quick escape.

Spiral staircases will only be acceptable in exceptional circumstances.

Where an external escape staircase is provided, its use must not be compromised by smoke and flames issuing from openings, below and adjacent to the staircase.

Escape routes across roofs will only be acceptable in exceptional circumstances.

Escape routes must discharge into the open air where dispersal, a safe distance away from the building, can be achieved.

Egress windows are only accepted as a secondary means of escape.

2.1 Fire Separation

To comply with BS 476.

2.1.1 Construction

In most situations 30 minute fire resistance will be required in the following circumstances:

- Walls enclosing a protected escape route
- Walls between units of accommodation
- Ceilings enclosing a protected escape route
- Ceilings between units of accommodation

In most situations 60 minute fire resistance will be required in the following circumstances:

- Walls separating residential usage from commercial usage
- Party walls separating neighbouring properties
- Ceilings separating residential usage from commercial usage
- Ceilings separating neighbouring properties
- Ceilings between basements and all other areas

Existing lath and plaster constructions that are in good condition, completely free from holes, bulges, loosely keyed areas or cracks, may be deemed acceptable in providing 30 minute fire resistance.

Existing lath and plaster constructions that are in poor condition, lightweight partitioning or cladding constructed of timber, hardboard, chipboard, blockboard or plywood are unacceptable and will require upgrading.

2.1.2 Cupboards Accessed directly off Escape Routes

Depending on existing construction, storage cupboards, airing cupboards, enclosures housing cylinder/boiler/ immersion heaters and gas or electric meter

cupboards may need to be lined with 12.5mm plasterboard or 9mm fire board with close fitting joints.

2.1.3 Pipes and Ducts etc.
Where pipes & ducts etc. pass through fire resisting structures, sealing to prevent fire penetration must be provided.

2.1.4 Loft Hatches
Timber loft hatch covers to be lined with 12.5mm plasterboard or 9 mm fire protective boarding and be fitted with 25mm deep x 35mm wide stops.

2.1.5 Glazing
Glazed panels within walls forming part of a protected escape route to be of the same fire resisting standard as the wall within which they are situated.

Existing Georgian wired glass, in panes not exceeding 1.2m^2 for 30 minute and 0.5m^2 for 60 minute fire resistance, will be acceptable, apart from where glazing is below 1100mm above floor level, which must be fire resistant glass.

Any open-able glazing must be securely fixed shut.

2.2 Surface Finishes

2.2.1 Wall and Ceiling Surface Finishes
Surface finishes are categorised as Class 0, 1 or 3.

CLASS 0 Acceptable in all locations, including escape routes

CLASS 1 Acceptable in all rooms

CLASS 3 Acceptable in small rooms and on parts of some walls, maximum areas apply.

2.2.2 Floor Coverings
Ideally new carpeting to conform to low radius fire spread test standard BS 4790.

2.3 Door Locks

2.3.1 Final Exit and Bedroom Doors
Only simple fastenings are permitted which are clearly visible and can be immediately opened by persons escaping without the use of a key.

2.3.2 Cupboard Doors on the Escape Route
Cupboard locks will usually be key operated mortice lever deadlocks or padlock and hasp.

2.4 Fire Safety Signage

Fire safety signs to comply with BS 5499: Pt 1 and Part 4.

2.4.1 Warning Signs

"FIRE DOOR – KEEP SHUT" signs permanently displayed at eye level on both faces of fire doors.

"AUTOMATIC FIRE DOOR – KEEP CLEAR" signs permanently displayed at eye level on both faces of fire doors where electro-magnetic door closers are used.

"FIRE ESCAPE – KEEP CLEAR" signs permanently displayed at eye level on both faces of all doors which are provided solely as a means of escape and which, because they are not normally used, are liable to become obstructed.

"FIRE DOOR – KEEP LOCKED" signs displayed on the outside of cupboards and storage rooms accessed off the escape route and also separate boiler rooms.

"PUSH BAR TO OPEN" signs displayed immediately above the push-bar on doors fitted with panic bolt or panic latch.

2.4.2 Directional Signs

To comply with the Heath and Safety (Safety Signs and Signals) Regulations 1996

"FIRE EXIT" signs permanently displayed above all doors which are provided solely as a means of escape and which are not normally used. If impossible to position above door, fix where it is likely to be seen on route of escape and not be obstructed.

It is not necessary to display signs where the normally used entrance door also serves as main means of escape.

Where properties contain alternative escape exits or where escape routes are long and/or complicated, "FIRE EXIT" signs with directional arrow and pictographic symbol of a 'running man' will be necessary to highlight, at appropriate intervals, the correct escape route and exit.

2.5 Lighting

2.5.1 Artificial Lighting

Adequate normal lighting to be provided along all parts of the escape route to a place of safety.

2.5.2 Emergency Lighting

Emergency lighting to comply with BS 5266: Parts 1 & 7.

Unless the escape route is particularly complex, long or there is no effective borrowed light, emergency lighting will only be required in 3 storey buildings and above.

Should be tested once a month by temporarily breaking the supply to them and checking that they operate satisfactorily and once a year breaking the supply to them for their full rated duration period and checked for satisfactory operation.

All results should be recorded in a suitable log book, which should be available for inspection at the property at all times.

2.6 Fire Doors

In most situations all doors opening onto the protected escape route, with the exception of bathroom/WC compartments containing no fire risk, i.e. instantaneous water heaters, (excluding electric showers), or store cupboards, need to be of fire resisting standard.

Upgrading existing unprotected doors is generally not practical or economic but may be unavoidable in listed buildings. Where doors are of an awkward shape or size, i.e. under-stair cupboards, upgrading of the existing door with fire resistant boarding may be acceptable.

Doors should never be propped or wedged open.

2.6.1 Doors

In general doors should provide the same fire resistance as the wall within which they are situated.

In most situations doors opening onto a protected escape route within a property will be required to maintain 30 minute fire resistance. In lower risk HMOs (shared houses) existing solid, sound and well fitting timber doors may be acceptable.

Doors separating residential from commercial usage will be required to maintain 60 minute fire resistance.

In most situations where there is direct access between a basement and the ground floor of a property, two 30 minute fire resisting doors are required at each end of the access stairwell. Where this is necessary and in exceptional circumstances a single 60 minute fire resisting door may be acceptable.

2.6.2 Frames

Frames should be secure and in good repair and provide the same fire resistance as the wall within which they are situated.

Existing plastic covered timber frames are not acceptable and will need to be replaced.

2.6.3 Door Stops

Should be continuous, securely fixed and be capable of stopping the door. There are no minimum sizes for door stops.

2.6.4 Doorsets

Where an existing door and frame require replacing or where a new door opening is being formed then a doorset will be required.

2.6.5 Gaps

The gap between the top and sides of the door and the frame should be a maximum of 4mm. The gap between the bottom of the door and the threshold should be a maximum of 8mm.

2.6.6 Threshold

Unless floor coverings comply with low radius fire spread test standard (BS 4790) a threshold must be provided at a point directly below the closed door which physically divide the floor covering to either side of the door. We recommend a full width hardwood threshold is used.

2.6.7 Seals

In most situations all fire doors to have corresponding combined flexible edge, smoke brush and intumescent seals fitted to their head and sides. Recessed into pre-cut rebates in the door leaf or frame and secured in accordance with the manufacturer's instructions. Seals should not be fixed to the stops. It is recommended that self adhesive seals are pinned for additional support. Smoke seals must make contact with the corresponding part of the door or frame along its length.

Care should be taken when decorating doors and frames with smoke seals in place, as any paint on the seal will affect its ability to prevent smoke passing through the door and may require its replacement.

2.7 Door Furniture

All door furniture, including handles, must have a melting point greater than 800degC.

2.7.1 Door Latches

All fire doors required a suitable latching device to hold the door securely in the closed position.

Ball catches, metal or otherwise are not permitted.

2.7.2 Hinges

Fire doors are required to have three hinges, which should suit the thickness and weight of the door and be at least 100mm long.

2.7.3 Door Closers

In most situations all fire doors, except cupboard doors that are not in regular use, must be fitted with automatic, self closing devices capable of closing the door from any angle and fully engaging the latch.

Closers must operate effectively when all windows are closed. In some circumstances additional ventilation may be required in the form of trickle vents to windows or air bricks in walls to overcome air pressure that can prevent door closers from operating effectively.

Normally, only overhead or double "perko powermatic" type closers are acceptable. However, in lower risk HMOs (shared houses) existing single "perko" type closers may be acceptable as long as they are kept in a serviceable condition.

2.7.4 Electromagnetic Hold Open Units

Although rarely seen in smaller HMOs, these can be used where there is a need to hold open fire doors due to frequency of use. The door is held open and automatically released when the fire detection system is activated.

2.8 Installations within Doors

2.8.1 Vision Panels

Vision panels should be used where the opening swing of the door could be hazardous, e.g. sub-dividing corridor doors.

Georgian wired glazed panels should not exceed 0.1m^2 in area.

2.8.2 Viewers/Spy holes

These are likely to affect the integrity of a fire door, due to the materials that are used and therefore can only be included if there is a satisfactory fire test report.

2.8.3 Letter Boxes

Postal slots in FD30S entrance doors to have a maximum size of 250mm x 38mm, be fitted with internal and external close fitting metal sprung flaps, with a melting temperature greater than 800degC and be located between 760mm and 1450mm from floor level.

Intumescent seals should be fitted, unless a totally enclosed collecting box, which is of fire resisting construction, is provided over the slot on the inner face of the door.

2.8.4 Ventilation Grilles

These are not recommended within fire doors, but where doors have to contain ventilation grilles, they should incorporate a smoke shutter and intumescent fire seals sufficient to seal the whole grille area.

2.9 Travel Distances

These are the maximum recommended distance an occupant has to travel from within a room to the protected escape route and also to a final place of safety.

2.9.1 Escape possible in one direction only

	Maximum recommended travel distance (m)	
	Within room	Total distance
Sleeping area	9	18
High fire risk area(e.g. kitchen)	6	12
All other areas	9	18

2.9.2 Escape possible in more than one direction

	Maximum recommended travel distance (m)	
	Within room	Total distance
Sleeping area	18	35
High fire risk area (e.g. kitchen)	12	25
All other areas	18	35

3.0 Automatic Fire Detection (AFD)

AFDs can be of a hard-wired or a wireless design, but must be designed, installed and maintained in accordance with BS 5839

3.1 System Components

3.1.1 Smoke Detectors

As a general rule located in escape routes, bedrooms, separate living and dining rooms.

Types:

- Optical — responsive to smouldering fires; can be activated by dust or insects
- Ionisation — responsive to fast flaming fires; can be activated by cooking

3.1.2 Heat Detectors

As a general rule located in kitchens, bedsits containing cooking facilities and boiler rooms.

Types:

- Fixed Temperature — activated at set temperature
- Rate of Heat Rise — activated by a rise in temperature; can be activated by steam or cooking heat

3.1.3 Sounders

It is essential that when activated the system is readily audible and capable of waking a sleeping person. To achieve this a minimum sound pressure level of 75dB(A) at each bedhead, when all doors are closed is required.

3.1.4 Call Points

'Break Glass' type switches to allow fire alarms to be activated manually, prior to automatic system activation.

3.1.5 Fire Panel

The fire panel constantly monitors that the system is functioning properly. If a fault occurs, then the panel will indicate this with a visual and audible warning.

3.1.6 Power Supply

AFD systems must be permanently wired to a mains electrical circuit with continuity of supply. i.e. connection via a pre-payment supply is not acceptable. The system must have a back up power supply should the mains supply fail.
Systems solely powered by batteries are not acceptable.

3.1.7 Wiring

All wiring to be heat resistant securely fixed and protected against mechanical damage in vulnerable areas.

3.2 Detection Systems

3.2.1 Category LD3 Grade D system

May be acceptable in lower risk HMOs (shared houses) consisting of 1 to 3 storeys with 6 or less tenants

Detection	covering the protected escape route and any other identified high risk rooms, e.g. kitchens
Call point(s)	not required
Fire Panel	not required

3.2.2 Category LD2 Grade D system

In most situations required in higher risk HMOs consisting of 1 or 2 storeys with 6 or less tenants

Detection	covering the protected escape route, all rooms that open directly onto it and any other identified high risk rooms, e.g. kitchens
Call point(s)	not required
Fire Panel	not required

3.2.3 Category LD2 Grade A system

Normally required in higher risk HMOs consisting of 3 storeys with 6 or less tenants

Detection	covering the protected escape route, all rooms that open directly onto it and any other identified high risk rooms, e.g. kitchens
Call point(s)	adjacent to the final escape door(s)
Fire Panel	adjacent to the main final exit door

3.2.4 Category L2 systems

Normally required in higher risk HMOs consisting of 4 or more storeys or consisting of 1-3 storeys with 7 or more tenants

Detection	covering the protected escape route, all rooms that open directly onto it and any other identified high risk rooms, e.g. kitchens
Call points	adjacent to the exit(s) of each storey and at the final escape door(s)
Fire Panel	adjacent to the main final exit door

3.2.5 Mixed systems

A single building may require a mixture of different fire detection systems e.g. where a block contains flats in multiple occupation. These are installed to avoid unnecessary false alarms affecting the whole building.

3.3 Testing

3.3.1 Routine testing of the alarm system should normally take place on a weekly basis, preferably the same day and time. A different combined detector/alarm sounder or manual call point should be used to trigger the system each week.

3.3.2 At least every six months the entire system should be tested by a competent person.

3.3.3 A log book must be kept where all tests, false alarms and works carried out to the system are recorded. The log book should be kept on site and be available for inspection at all times.

4.0 Fire Fighting Equipment

4.1 Fire Extinguishers

To conform to BS EN 3-7 and be maintained in accordance to BS 5306.
Extinguishers should be located where they do not obstruct the escape route or opening doors and be mounted on a dedicated stand or bracket.

In practice, extinguishers should only be required in premises where there is effective on-site management to supervise and maintain the equipment and therefore their provision inside units of accommodation is not recommended.

4.2 Fire Blankets

Fire blankets to conform to BS EN 1869:1997.
Blanket should be housed in a suitable container, in a readily accessible position, preferably between the cooker and the room's exit, with the base of the container at a recommended height of 1.5 metres above finished floor level.

4.3 Sprinkler Systems

To conform to BS 9251.
Residential sprinkler systems dramatically enhance fire safety within HMOs and can lead to the relaxation of other fire safety requirements such as fire resisting walls, ceilings and doors. Sprinkler heads are set to operate at a fixed temperature not less than 30^0C above ambient temperature which makes it very unlikely to operate unless activated by a fire. Adequacy of water supply and mains water pressure are important considerations as to whether a sprinkler system is feasible.

5.0 Fixtures and Fittings

5.1 Upholstered furniture

5.1.1 To comply with the Furniture and Furnishings (Fire) (Safety) Regulations 1988

When you let out accommodation that you have not let before, regulations control the safety of upholstered furniture supplied in the let. This includes any furniture that includes upholstery, (unless it was made before 1950), for example:

- sofas and armchairs;
- beds, headboards and mattresses;
- sofa-beds, futons and other convertibles;
- loose and stretch covers for furniture;
- scatter cushions, seat pads and pillows;

Upholstered furniture should have a permanent label present attached to show compliance.

5.2 Electrical Appliances

5.2.1 To comply with the Electrical Equipment (Safety) Regulations 1994

- All mains electrical equipment whether new or used, supplied with the accommodation must be safe and fit for purpose. If it complies with an acceptable standard such as a British or European Standard, it will normally meet safety requirements.

- All reasonable precautions should be taken to ensure that electrical equipment is safe and correctly labelled. It is strongly recommended that equipment is checked by a competent person before the start of each let. It would also be good practise to have the equipment checked at regular intervals thereafter. Test reports detailing the equipment, the tests carried out and the results should be obtained and retained.

- A copy of the instructions for all electrical appliances should be made available to the tenants.

5.2.2 To comply with the Plugs and Sockets etc (Safety) Regulations

- Electrical appliances must be correctly fitted with an approved plug with sleeved pins. All plugs should carry the name and reference number of the approved body, normally BSI or ASTA. The plug does not need to be moulded on, but it must have the correct fuse for the appliance.

6.0 Electrical Installations

6.1 To comply with the Management of Houses in Multiple Occupation (England) Regulations

- Electrical installations must be inspected at least every 5 years by a competent person and recorded as a Periodic Inspection Report in a format such as in Appendix 6 of BS 7671.

7.0 Gas Installations and Appliances

7.1 To comply with the Gas Safety (Installations and Use) Regulations

- Gas installations and appliances provided with the accommodation must be inspected at least once a year by an engineer, (not a company), who is registered on the 'Gas Safe Register' and recorded as a Landlords Gas Safety Certificate.

- A copy of the certificate should be given to all new tenants and to existing tenants within 28 days of the inspection taking place.

- Copies should be retained for a minimum of 2 years.