London Borough of Barnet

Fire Safety in Houses in Multiple Occupation

A Guide to Landlords

Contents

Introduction

The occupants of a house in multiple occupation (HMO) are more at risk of dying or being seriously injured in a fire than the occupiers of other residential property. A good standard of fire safety is therefore extremely important to protect them. This applies to all types of HMOs whether or not a licence is required.

Fire safety measures are primarily designed to contain a fire in order to prevent it spreading to other parts of the property and to give early warning of a fire incident. This will give the occupants an opportunity to leave the building quickly and safely.

Without knowledge of a particular property, it is not possible to say exactly what fire safety measures may be needed, as these will be unique to an individual building. The purpose of this guide is therefore to indicate generally the fire safety precautions that are required by the council in HMOs. By following it however you may go a long way to significantly reducing the risk to your tenants.

The main purpose of this guide is to inform you, your advisors and your contractors of what is required and to assist you with any technical and other questions you might have concerning fire safety precautions. The summary below is intended to be a quick and easy general reference to the main fire safety measures you should provide and maintain in your HMO.

Summary of Main Requirements

- The escape route, which usually comprises the common stairs, landings and hallway leading to the building's main entrance door, should be a protected route. This means that all the walls, floors and ceilings separating bedrooms, living rooms and kitchens from the escape route must generally be of 30 minutes fire resistant construction. All doors to such rooms communicating directly with the escape must be 30 minute fire doors with smoke seals and suitable self-closing devices.

- All units of accommodation should be separated from each other and from shared kitchens and living rooms by walls, floors and ceilings which are generally of 30 minutes fire resistance.

- There should be an automatic fire detection and alarm system (AFD). The particular type required will depend upon the size and layout of your property, as well as the nature of occupation (please refer to the section in this guide concerning automatic fire detection on page x). The system should be such that when one detector is activated the alarm sounds around the building to alert all the occupants. Systems should be mains wired with a battery backup supply so that it will work even if the mains electricity supply fails.

- Emergency lighting is necessary to illuminate all parts of the escape route, particularly at changes of floor level and to indicate manual call points and fire fighting equipment. It is designed to operate upon failure of the mains supply.

- A 9 litre water fire extinguisher with a rating of 13A should be provided on each floor in the hallway or landing and located near to manual call points where these are required as part of the alarm system. In shared kitchens, a 2.0 kg carbon dioxide or dry powder extinguisher with a rating of 34B and a fire blanket should be provided.

- Furniture and furnishings provided must comply with the Furniture and Furnishings (Fire) (Safety) Regulations 1988 (as amended in 1989 & 1993)

- Regular visual inspections of fire safety precautions and the condition of the escape route are important. Any problems identified should be dealt with as soon as possible. Automatic fire detection and emergency lighting systems should be tested at least annually by a competent person and a report and certificate provided.

Fire Safety Precautions

Fire safety measures primarily fall within the following categories: -

- Protecting the means of escape from fire
- Fire doors
- Fire separation
- Fire stopping
- Automatic fire detection
- Emergency lighting
- Fire fighting equipment
- Fire safety compliant furniture and furnishings

Protecting the Means of Escape from Fire

Often, the only escape route from a building will be the common stairs, landings and hallway leading to the front or main entrance door. The design and maintenance of the escape route is such that it is unlikely that a fire will begin there. It is more likely that a fire will start in one of the rooms or areas adjacent to the escape route. It is important therefore to protect that route to prevent the spread of smoke and flame from an adjoining room or area in which a fire may have started. If smoke is allowed to spread onto the escape route, this can discourage or even prevent the occupiers using it.
The escape route (or protected route) should therefore: -

- Have walls, floors and ceilings, which are generally of at least 30 minutes* fire resistant construction.
- Have signs to indicate the means of escape where the escape route is not the normal means of access to and from the building.
- Have a final exit door from the building (most often this will be the front or main entrance door), which can be opened without using a key
- Be kept free from obstructions

*In some special cases, for example, where there is a basement level, a boiler room or adjacent commercial premises, a higher standard of fire resistant separation will be required.

Where glass panels are present in a wall or partition which separates a room from the escape route (quite commonly these can be found above the head of the door frame), the glass should be of a fire resistant type and installed in a purpose made frame which accords with the manufacturer's instructions.

Any understairs cupboards or other built-in storage areas pose a risk as fires can begin in such areas. For this reason they should be removed. Where it is not possible to remove them, they must be made to be at least 30 minutes fire resistant and contain a smoke detector as part of the automatic fire detection and alarm system.

It is also important to make sure that the route is kept clear so that the escape is not obstructed and to reduce the risk of any injury to those trying to escape or to fire fighters who may enter the building. Items should not be stored in the escape route as they are a potential source of fire.

In addition, the following items should not be permitted in the escape route: -

- Portable heaters of any type
- Heaters which have unprotected flames or radiant bars
- Fixed heaters supplied by a gas cylinder or paraffin.
- Cooking appliances
- Upholstered furniture
- Wardrobes or other types of storage furniture
- Coat racks
- Storage of any kind
- Lighting which has a naked flame
- Gas meters other than those complying with the relevant gas safety regulations

Fire Doors

Fire doors are an integral part of a protected route but are explained here separately because they are so important. They are purpose manufactured to certain standards and function to prevent the spread of both a flame and smoke onto the escape route.

Fire doors must be fitted to all rooms communicating directly with the escape route, with the exception of bathrooms or toilet compartments (except where these pose a higher fire risk, for example where they contain an open flue gas boiler). This means that all living rooms, bedrooms and kitchens opening directly onto the escape route must be fitted with a fire door. These are generally required to be 30 minutes fire resistant. In some special cases, 60 minute fire resistant doors may be required. For further information about the standard of fire doors, please see the advice note 'A Guide to Fire Doors.'

Fire doors must be self-closing and self-latching. In order to prevent smoke passing between the gap between the door itself and the door frame or lining, fire doors must be fitted with smoke seals. The smoke seals required are those which combine a cold seal to the gap and a hot smoke seal comprised of intumescent material, which expands when subject to the high temperatures reached during the course of a fire. Smoke seals minimise the risk of smoke spreading into the escape route.

Locks to fire doors should be operable from the inside of a room without the use of a key.

Compartmentation

Just as it is important to prevent the spread of smoke and flame into the means of escape, it is also important to stop a fire spreading from one unit of accommodation or shared kitchen facility to another unit of accommodation.

All units of accommodation must therefore be separated from each other and from any voids such as the roof space, by walls, floors and ceilings, which are generally of at least 30 minutes* fire resistant construction.

*Again, in some special cases, for example, where there is a basement level, a boiler room or adjacent commercial premises, a higher standard of fire resistant fire separation will be required.

Fire Stopping

Often central heating and other services must pass through a fire resistant structure and this represents a point at which smoke and/or flame can spread. The treatment of these areas to maintain the fire resistant integrity of the structure, be it a wall, ceiling or a floor is known as fire stopping.

There are some purpose made fire stopping and sealing systems on the market. Fire stopping materials include cement mortar, gypsum based plasters, cement or gypsum based vermiculite/perlite mixes and intumescent mastics. These may be used in situations appropriate to the material. Not all of them will be suitable for every situation.
For more information on fire stopping, you can refer to Section 11 of Approved Document B to the Building Regulations 2000 (as amended in 2002).

Automatic Fire Detection

Automatic fire detection and alarm (AFD) systems give early warning of a fire. Such systems allow the occupants to leave the building at the earliest possible opportunity and so reduce the risk of injury to them significantly.

There are different kinds of AFD and the particular type required, will depend upon the size and layout of your property as well as the nature of occupation. There are generally 2 different types of AFD for HMOs whether they require a license or not. These will generally apply to the particular types of HMO described below.

Houses and Flats of no more than 2 stories

This type of property will usually require a non-panelled system of automatic fire detection. This means that the system does not have a central control panel. It will consist of mains wired smoke and heat alarms (with battery standby supply), which are all linked together so that if one is activated, they all sound to give a warning to the occupants. This is known as an LD2 system, Grade D.

A smoke alarm is a device containing both a smoke detector and an audible alarm sounder. They should be located in all living and bedrooms (including bed-sitting rooms) opening directly onto the means of escape as well as on the escape route itself. They will also be required in any built-in cupboards in the escape route and this includes understairs cupboards.

A heat alarm is a device containing both a heat detector and an audible alarm sounder. These should be located in a shared kitchen or in bed-sitting rooms which contain cooking facilities. Heat alarms are used where a smoke alarm might otherwise be activated by normal cooking activity. This will help to reduce false alarms. It is also recommended that a stand alone smoke alarm is installed in a bed-sitting room with cooking facilities to give early warning of a fire to the occupants of that room.

Houses and Flats of 3 or More Stories or Hostels for Homeless Persons of any Height

This type of property will generally require a panelled system of automatic fire detection. Such a system will have control and indicating equipment (a control panel) as well as smoke and heat detectors, audible alarm sounders, manual call points and will be mains wired. They will also have a battery backup supply.

Smoke detectors should be located in all living and bedrooms (including bed-sitting rooms) opening directly onto the means of escape and well as on the escape route itself. They will also be required in any built-in cupboards in the escape route and this includes understairs cupboards. They may also be required in basements used for storage even though they may not be habitable.

Heat detectors should be located in a shared kitchen or in bed-sitting rooms which contain cooking facilities. They are used where a smoke detector might otherwise be activated by normal cooking activity and will reduce the occurrence of false alarms. It is also recommended that a stand alone smoke alarm is installed in a bed-sitting room with cooking facilities to give early warning of a fire to the occupants of that room.

Such systems will normally be LD2, Grade A as defined in BS 5839 Part 6. For further information about the standard of automatic fire detection, please see the advice note ‘A Guide to Automatic Fire Detection.’

Emergency Escape Lighting

Emergency lighting assists the occupants to make a safe exit from the building and is designed to operate should the main electricity supply fail. Generally it should provide sufficient lighting to all parts of the escape route and particularly to highlight any changes in floor level or direction, as well as to illuminate manual call points and fire fighting equipment. For further information about the standard of automatic fire detection, please see the advice note ‘A Guide to Automatic Fire Detection.’

Fire Fighting Equipment

Whilst the occupiers should be encouraged to leave the building quickly in the event of a fire, extinguishers are required so that small fires may be tackled or escape routes made passable.

Fire extinguishers should be hung on brackets approximately 1m from the floor, away from heaters, not obstructing escape routes. All extinguishers should comply with BS EN3, be wall mounted and be in a readily accessible location.

- A 9 litre water fire extinguisher with a rating of 13A to comply with British Standard EN3: 1996 and 7863: 1996 should be provided on each floor of the escape route and located near to manual call points where these are required as part of the alarm system. This type of extinguisher is suitable for wood, cloth, paper and plastics but not for electrical appliances or chip pan fires.

- A 2.0 kg carbon dioxide or dry powder extinguisher with a rating of 34B to comply with British Standard EN3: 1996 and 7863: 1996 should be provided in a shared kitchen. These extinguishers are suitable for fires caused by solids and liquids, e.g. paint and petrol and for electric equipment but not for chip pan fires.

- A fire blanket should be provided in a shared kitchen. Fire blankets should conform to BS 6575 and wall mounted in the kitchen 1.5m from floor level away from cooker. They are for chip pan fires as well as those involving solids and liquids.

Fire Safety Compliant Furniture and Furnishings

Furniture and furnishings provided must comply with the Furniture and Furnishings (Fire) (Safety) Regulations 1988 (as amended in 1989 & 1993). This will include any upholstered furniture such as chairs, sofas, children's furniture, beds, upholstered headboards, mattresses, scatter cushions, seat pads, pillows and upholstered garden furniture.

The regulations apply to all furnished accommodation and in HMOs which require a license, and compliance can and generally will form part of the conditions attached to the license.

For further information, please contact the council's Trading Standards on 0208 359 2178 or visit the government's website www.dti.gov.uk and use the search engine.

Design Issues

The escape route to the final exit door must never pass through areas used for sleeping, general living, cooking, or storage without being separated from them by fire resisting walls or partitions and fire doors.

A room in which the only escape route is through another room (the access room) is called an 'inner room'. If a fire starts in an access room, it may not be possible to escape through that room and a person may become trapped in the inner room behind it. For that reason within a unit of accommodation, inner bedrooms and living rooms are not permitted.

Where cooking facilities are provided in a bed-sitting room, they should be located in a position remote from the entrance door and should not be situated so as to prejudice the escape route from any point in that accommodation. Cooking facilities should not be located near to bedding and other flammable materials.

Flats in multiple occupation

Whilst not all flats will have a stair unless they are arranged over 2 or more levels, the same principles are applied to the means of escape from fire to form a protected route. In a flat consisting of one storey only, the protected route normally consists of the hall to the flat entrance door.

Flats in multiple occupation will generally require the same fire safety measures as for other HMOs.

Having Works Carried Out

It is important to have fire safety works carried out by competent persons. As well as the quality of products used, fire precautions depend heavily upon the quality of workmanship. This can make the difference between fire safety measures that work and those that fail.

Fire proofing works can be carried out by a competent general builder and /or carpenter using approved materials and following the manufacturer's instructions. Some specialist products such as fire doors can be approved under the Certifire Scheme. A Certifire certificate validates a product's suitability and limits of use. It provides the assurance that certified products will do the job expected of them.

Information about fire doors can be obtained from the British Woodworking Federation (BWF) who in association with Certifire, list approved fire door centres and suppliers on their website www.bwf.org.uk

Information about fire resistant glazing systems can be obtained from the Glass and Glazing Federation on their website www.ggf.co.uk

For fire alarm systems, there are a number of specialist contractors some of which also carry out security installations. Some of these contractors are approved by BAFE (British Approvals for Fire Equipment) through their certification scheme (SP 203), for the design, installation, commissioning and maintenance of fire detection, alarm and suppression systems. A full list of their certified contractors can be found at www.bafe.org.uk. These contractors may also carry out emergency lighting installations.

Management of the means of escape of fire and other fire precautions.

Regular inspection and maintenance is an important part of fire safety management in HMOs.

Damage and general wear and tear to fire safety installations, fire fighting equipment and structural fire protection measures can seriously undermine their performance or cause them to fail during a fire. Batteries and other components all require replacement at certain intervals and fire extinguishers should be inspected and serviced every year.

A test of the automatic fire detection and alarm and the emergency lighting systems must be carried out at least annually by a competent person and a test certificate obtained. Otherwise the regular visual inspection of fire safety measures should be carried out to ensure that there are no obvious problems. All defects identified should be recorded and the necessary remedial works undertaken.

It is also good practice to make a record of all the inspections undertaken.

Reducing the risk of a fire

In addition there are steps you can take to reduce the likelihood of a fire occurring.

Electrical Installations

Under The Management of Houses in Multiple Occupation (England) Regulations 2006, fixed electrical installations in houses in multiple occupation must be inspected and tested at least every 5 years by a qualified and competent person and a certificate obtained. In all other properties, it is recommended that a full electrical installation test should be carried out every 5 years or as recommended by a competent electrician to ensure it is safe and in good working order. Electrical wiring of more than 25 years old will most likely need to be inspected every year. You should obtain a certificate from your electrician and keep this for your records.

Competent electricians may be members of the Electrical Contractors Association (ECA) or the National Inspection Council for Electrical Installation Contracting (NICEIC).

Electrical Appliances

The Electrical Equipment (Safety) Regulations 1994, places a duty on landlords and letting agents to ensure that any electrical equipment supplied as part of a letting is maintained in a safe condition.

Such equipment may include:

- Washing machines
- Kettles, toasters and other small kitchen appliances
- Fridges and freezers
- Ovens
- Microwaves
- Televisions
- Vacuum cleaners

In order to help demonstrate that the landlord/letting agent has taken reasonable steps to ensure compliance with these regulations, all such appliances should have a safety check carried out annually or at a change of tenancy, by a competent electrician. A record of these should be made in a logbook and it is good practice for a label to be attached to the appliance. Should the inspection reveal that there is a safety hazard, then the appliance should be removed immediately or repaired at the property.

Gas Safety

The Gas Safety (Installation and Use) Regulations 1998 places a duty on landlords to have a safety check carried out each year by a CORGI registered engineer on gas installations and appliances. A gas safety check and certificate can also be required by the Council under The Management of Houses in Multiple Occupation (England) Regulations 2006 and as part of the conditions of the licence for a house in multiple occupation under the mandatory licensing scheme. This will help to reduce the fire risk associated with gas installations and is also important to prevent potentially life threatening carbon monoxide poisoning. For more information about this visit the Health and Safety Executive's website on www.hse.gov.uk/gas/

Fire Safety in HMOs and the Law

The following is a brief overview of the law relating to fire safety in HMOs. Some of these provisions also contain requirements in relation to other health and safety matters which are not mentioned here. Reference is made where applicable to other documents that explain more about these.

Housing Act 2004, Part 2 and Licensing of Houses in Multiple Occupation

This requires that a license is held in relation to certain types of HMO. Such licenses apply to HMOs with 3 or more stories occupied by 5 or more people who share some amenities.

Among other things, the conditions that may be attached to a license can require that smoke alarms are kept in working order and that electrical appliances and furniture are kept in a safe condition. Further information about licenses can be found in the council's guide "Houses in Multiple Occupation – Compulsory Licensing Scheme Part 2 Housing Act 2004 "

Housing Act 2004, Part 1

This Act requires the council to inspect premises under the Housing Health and Safety Rating System and fire safety is one of the 29 matters taken in to consideration. The council may and in certain cases must take action in relation to fire safety in residential premises, including HMOs. Amongst other forms of action, the council can serve statutory notices requiring improvements or repairs.

The Management of Houses in Multiple Occupation (England) Regulations 2006

These regulations impose a duty upon the managers of HMOs to ensure that the means of escape are kept free from obstruction and are maintained in good order and repair. Fire alarm systems and fire fighting equipment are also to be maintained in working order.

The regulations require that common parts, fixtures, fittings and appliances are maintained in good and clean decorative repair, maintained in a safe and working condition and kept reasonably clear from obstruction. e.g. balustrades and handrails, stair coverings, windows, lighting, gardens and yards, walls and fences, etc.

The Regulatory Reform (Fire Safety) Order 2005

This Order requires fire precautions to be put in place where necessary. It is enforced by the Fire Authority who can also require that risk assessments of the common areas of an HMO (halls, stairs and landings for example) are carried out by responsible persons.

For more information, please contact:

The Private Sector Housing Team on 020 8359 7997 or e-mail hmo@barnet.gov.uk or write to us at:

London Borough of Barnet, Environmental Health
Building 4, North London Business Park
Oakleigh Road South
London, N11 1NP

A Guide to Fire Doors

Fire doors and where required, frame assemblies are to comply with the following: -

- must give the appropriate level of fire resistance when tested or assessed to BS476: Part 22: 1987
- assembly to provide adequate smoke sealing when tested to BS476: Part 31.1
- assembly to be installed and maintained in accordance with BS 8214: 1990
- valid evidence of fire performance must be provided
- specification on site must correspond in all respects to that in the fire test report including intumescent and smoke seals, self-closers and ironmongery
- assembly frame dimensions and construction must not be less than that tested or approved, and be adequate to maintain the normal mechanical function and durability of the door
- all new frames to be made close fitting to walls. Any gaps to be sealed with intumescent paste. Any architraving removed in the course of the work to be replaced or renewed as necessary
- intumescent and flexible cold smoke seals should be recessed into the hinge side, top and closing edges of door or door frame, in accordance with manufacturer's instructions and as per fire test report.
- intumescent and smoke seals must not be over-painted
- typically leaf/frame gap should be no greater than 4mm. The gap at threshold should be kept to a minimum and ideally be no greater than 8mm.

A Guide to Automatic Fire Detection and Alarm Systems

A typical specification for a Grade A system is given below.

- The fire alarm and automatic fire detection system to accord with British Standard 5839: Part 1: 2002 for a category LD2 system, Grade A under Part 6.

- System to include the following:

- an alarm control panel complying with BS EN 54-2, incorporating a sufficient number of zone indicators so as to adequately indicate the location of a fire incident.

- power supply complying with BS EN 54-4

- automatic smoke detectors complying with BS EN 54-3 to be installed

- provide and install a sufficient number of alarm sounders so as to achieve sound pressure level of 75dBA at the head of each bed space and 65dBA or 5dBA above any noise likely to persist for a period of more than 30 seconds in all accessible parts of the building. Difficulties can arise in attaining the prescribed sound levels by relying solely on sounders in common parts. It is recommended that fire alarm sounders are installed within sleeping and other rooms. A number of manufacturers now produce combine sounders and detector heads. Audible devices may be electronic sounders or conventional bells but these two types must not be mixed in the same system. The type chosen must be distinct from other audible alarms used for other purposes.

- manual call points complying with BS EN 54-11, of a uniform type to be installed on the landing at each storey and in the entrance hall adjacent to the front entrance door.

- the entire system to be wired in suitable cable complying with requirements of BS 5839: Part 1: 2002

- provide and install an isolating protective device (e.g. an isolating switch fuse) to connect the fire alarm control panel to the electrical mains supply. The protective device is to be reserved solely for the purpose of supplying the control panel, its cover to be coloured red and labelled “FIRE ALARM: DO NOT SWITCH OFF”. The device should be secure from unauthorised operation

- system to be provided with suitable standby power source designed to operate on the failure of the mains electrical supply.

- Installation to be wired in accordance with the current edition of the Institute of Electrical Engineers Regulations (BS 7671).

- On completion of the installation the ‘Responsible Person’ to be supplied with adequate instructions on its use, routine attention and test procedures. The installer to supply user with a log book and a certificate of Installation and Commissioning. The certificate to confirm installation complies with the recommendations in BS 5839: Part 1:2002

General Advice

Circuit Design

Wiring arrangement to be such that faults in one zone or the removal of a detector in one zone do not prevent operation in other zones. Removal of detector heads to be monitored through an end of line resistor causing fault signal at the control panel and must not affect operation of manual call points or sounders.

(a) Compatibility

All components of the system are to be compatible.

(b) Zoning

Only one zone will be required where total area is less than 300m² provided that the search distance is less than 30m. Where the total floor area exceeds 300m there should be a zone for each floor and the stairway enclosures.

(c) Sounders

The number of alarm sounders should be sufficient to produce 65 dB(A) in all accessible parts of the building and 75dB(A) at the head of each bed space. Either: electronic sounders or conventional bells may be used but not both.

(d) Call Points

Call points to comply with BS 5S EN 54-11 and must be of uniform type.

Break glass types to be sited as directed in the schedule.

Call points to be fixed 1.4m off the floor in easily accessible areas and be capable of being readily seen and in any event present a profile of 750mm² in corridors when seen from the side.

(e) Smoke Detectors

Smoke detectors to be of the point type, complying with BS 5445: Part 7. It is recommended that optical units should be installed.

Smoke detectors to be installed not less than 25mm and not more than 600mm below ceiling and in a horizontal plane not more than 500mm from walls/partitions. Where located under flat horizontal ceilings, the horizontal distance from any point to the nearest detector should not exceed 7.5m or in a corridor less than 5m wide, 50% of the difference between 5m and the actual width plus 7.5m.

Detectors Generally and Obstructions

The horizontal distance from detectors should be decreased by twice the depth of ceiling obstruction where that obstruction is of 150mm but less than 10% of the ceiling height.

(f) Control Panels

Control panels to comply with BS EN 54-2 in that they are required to:

- Activate sounder when detectors/call points signal a fire situation.
- Visibly indicate the alarm state.
- Operate a further sounder within or adjacent to the panel.
- Indicate the zone within which the signalling detector/call point is located.
- Include manual silencing and re-set switches.
- Audibly and visibly indicate the presence of a fault.
- Be marked that the panel complies with BS EN 54-2 and with the manufacturer's/suppliers' name and equipment model/type number.

The panel should be located in a position so as to be readily accessible to occupiers and fire brigade at a suitable height in an area of low fire risk covered by detectors linked to the system. Operating instructions near to panel to be displayed. Location to be such that all indicators easily legible at all hours and where ambient sound level does not obscure audible signals from the panel.

Normal supply from mains AC power with battery stand-by back up. System to be wired between supply company's meter and building's main isolating switch, and connected to an isolating protective device, coloured red and serving only the alarm system with a label ***"Fire Alarm Do Not Switch Off".*** Isolating device to be secure from tampering. Where RCDs are provided, system to be wired such that alarm supply will not be interrupted upon failure of mains supply.

Standby/Back up supply can be by way of automatically trickle charged secondary batteries of 4 years (min) life expectancy and capable of maintaining system for 24 hours.

(g) Cables and Wiring

Cables between control equipment and sounders to be of BASEC approved CWZ in accordance with BS 6387: 1994 and be protected from mechanical damage (please see emergency lighting definitions). Cables between control panel and main fuse switch can be of the non specific type provided they are protected from physical damage and rodents. Twin and earth in LSZH (low smoke zero halogen) form are recommended.

A Guide to Emergency Lighting Systems

Emergency lighting is designed to operate on failure of the supply to the normal artificial lighting and capable of satisfying the following criteria:-

(a) To indicate clearly and unambiguously the escape routes to the final point of safety
(b) To provide illumination along such routes to allow safe passage to the final point of safety
(c) To indicate the location of fire alarm call points and fire fighting equipment.

The system to be supplied via a suitable secondary power source and operational within 5 seconds of the mains failure and to continue operating for a period of at least 1 hour.

The entire system to be designed and installed in accordance with the requirements of British Standard 5266.

(a) Emergency Lighting Design

Emergency lighting system to comply with BS 5266: Part 1: 1999 and designed to provide lighting upon mains or localised failure to ordinary domestic lighting within 15 seconds, and to be of 3 hours duration following the failure.

(b) Luminaires

Luminaires can be self-contained or slave to comply with BS EN60598 2.22:1999 and may be maintained or non-maintained with a minimum of 4 years battery life. Luminaries to have a charging monitor.

(c) Siting

Luminaires to be sited a minimum of 2m above floor level to underside of luminaire cover and near to exit doors, any change of floor level or direction and near fire fighting equipment including fire extinguishers. Horizontal illuminance measured at floor level on centre line to be 0.2 lux minimum (although 1 lux is recommended.

(d) Wiring

Wiring to comply with 16th edition of the Institute of Electrical Engineers Regulations. Wiring to self contained luminaires to be in PVC insulated cable. Supply to be taken from unswitched local light source and to be protected by the ordinary domestic lighting circuit serving the circulation spaces. Wiring between non self-contained luminaires and central battery pack/prime mover generator to be of BASEC approved CWZ in accordance with BS 6387.

(e) Commissioning

A commissioning certificate conforming to the 16th edition of the Institution of Electrical Engineers Regulations to be obtained following the commissioning test.

(f) Emergency Lighting Definitions

BASEC - British Approvals Service for Electric Cables.

CWZ - Resistance to fire at 950°C for 3 hours.
Resistance to fire with water.
Resistance to fire at 950°C with mechanical shock.