

# Foreword



Fire safety is an issue for each and every one of us in society and taking the right kind of precautions against fire can make that vital difference between life and death.

People staying in guest accommodation are entitled to expect that reasonable precautions are taken for their safety. This is the latest addition to a series of fire safety publications issued by my Department which covers a wide variety of premises. There is already a guide to fire safety in hotels and hostels and we hope, in this case, to assist people in charge of other types of guest accommodation in meeting their fire safety responsibilities. The provisions of this Guide, if carefully applied, should minimise the occurrence of fires in these premises and the potential for fatalities, injuries and damage.

I strongly urge those of you in charge of guest accommodation to study and apply the guidance contained in this publication.

A handwritten signature in black ink that reads "Noel Dempsey". The signature is written in a cursive, flowing style.

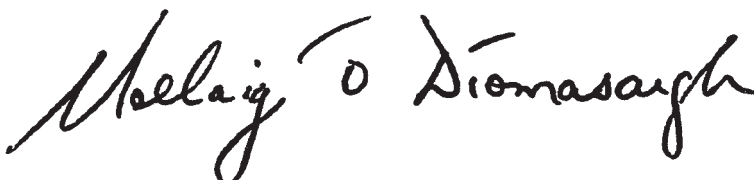
**Noel Dempsey T.D.,  
Minister for the Environment and Local Government**

# Brollach

Tá tábhacht ag an sábháilteacht dóiteáin dúinn go léir, agus féadfaidh na réamhchuraimí cearta an difríocht a dhéanamh idir an bás agus an bheatha.

Tá sé de cheart ag gach éinne atá ag fanacht i lóistín aíochta go ndéanfaí réamhchuraimí réasúnta ar mhaithe lena sábháilteacht. Is é seo an foilseachán is deireanaí i sraith de fhoilseacháin atá curtha amach ag mo Roinn i dtaca le sábháilteacht dóiteáin i réimse leathan de áitribh. Tá treoir don sábháilteacht dóiteáin in óstáin agus i mbrúnna foilsithe cheana, agus sa chás seo tá súil againn cuidiú le lucht riartha lóistíní eile aíochta agus iad ag comhlíonadh a ndualgas maidir leis an sábháilteacht dóiteáin. Má chuirtear forálacha na Treorach seo i bhfeidhm go cúramach, is cóir go laghdóidh siad líon na ndóiteán sna háitribh sin agus baol na mbás, na ngortuithe agus an díobhála leis.

Molaim go láidir dá bhfuil i bhfeighil ar an lóistín aíochta staidéar a dhéanamh ar an treoir atá san foilseachán seo agus í a chur i bhfeidhm.



Nollaig Ó Díomasaigh T.D.,  
Aire Comhshaoil agus Rialtais Áitiúil

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# Chapter 1 Introduction

## 1.1 Background to the Guide

The Fire Services Act, 1981 applies to premises used for the provision of sleeping accommodation (with the exception of premises consisting of a dwelling house occupied as a single dwelling). The Act also applies to premises used for any purpose involving access to the premises by members of the public, whether on payment or otherwise. The Act applies to these premises, irrespective of whether or not they are registered or approved by any registration or approval body, or subject to other statutory requirements.

For the purposes of this Guide, **guest accommodation** refers to existing premises, other than hotels and hostels, providing overnight guest accommodation, and includes guesthouses, bed and breakfast and similar establishments providing overnight guest accommodation.

Guidance for **hotels** is contained in the *Guide to Fire Precautions in Existing Hotels, Guesthouses and Similar Premises*. It is intended to produce a further fire safety guide in this series, specifically for hotels.

Guidance on fire safety in **hostels** is contained in another publication in this series, *Fire Safety in Hostels*, published by the Department of the Environment and Local Government.

## 1.2 Purpose of the Guide

The purpose of this Guide is to assist persons in control of **guest accommodation** in discharging their statutory responsibilities under the **Fire Services Act, 1981**. In particular, the Act provides that:

Persons in control of these premises are required:

- to take "*all reasonable measures*" to guard against the outbreak of fire on the premises; and
- to ensure "*as far as is reasonably practicable*" the safety of persons on the premises, in the event of an outbreak of fire.

While the Guide is aimed primarily at persons in control such as owners, occupiers and managers, particular aspects of the guide such as those concerning fire prevention and what to do in the event of a fire are relevant to staff, guests, visitors and maintenance personnel.

### 1.3 Scope of the Guide

The Guide addresses fire safety in premises used for guest accommodation.

From a fire safety perspective, the premises should be suitable for its intended use. This means that certain essential fire safety features appropriate to the use of the premises, as guest accommodation, must be provided. In addition, a proactive fire safety management policy is required to minimise the risk of a fire occurring and to ensure the safety of guests in an emergency.

Based on this two-pronged approach, the guidance is set out in two principal areas as follows:

- ❑ Chapter 2 sets out the requirements for an effective fire safety management policy appropriate to guest accommodation, and
- ❑ Chapter 3 sets out the principal fire safety measures required for all existing buildings used as guest accommodation, for the purpose of complying with the general duty of care under the Fire Services Act of 1981.

### 1.4 Interpretation

It will be appreciated that many aspects related to the suitability of premises are of a technical nature. While the Guide should generally be readily understood by the providers of guest accommodation, many of the recommendations in **Chapter 3** in particular will need to be interpreted and implemented by suitably qualified and competent persons.

The Guide applies to existing buildings, irrespective of when they were originally constructed. The majority of these are private residences that have been adapted to accommodate guests. While very many such premises have been constructed in recent times, others are of historic significance or have features that are important from an architectural and heritage perspective. In these latter instances, the interpretation of the guidance should take into account the principles of conservation and the desirability of maintaining the historic fabric of these original buildings.

Where practical difficulty arises in complying with a particular provision of this Guide an alternative solution may be utilised, provided an equivalent level of fire safety is achieved. In these instances compensating features may be utilised, where it may be possible to offset a shortfall in a particular provision by some other enhanced safety provision. The application of fire safety engineering principles may provide a means of demonstrating that an adequate level of fire safety is achieved.

In many areas the Guide refers to different technical standards, codes of practice and other documents (see Appendices B and C). Users of the Guide will need to be familiar with these references, where appropriate. It should also be noted that many of these undergo updating from

time to time and it is advisable to ensure that reference is made to the latest edition and to any published amendments.

It is recognised that guest accommodation is provided in many different building types and there will be a need for flexibility in the implementation of the Guide's recommendations in particular cases. The Guide is intended to assist, and not replace, professional judgement for particular circumstances.

## **1.5 Legal Provisions**

### **1.5.1 Fire Services Act, 1981**

The primary legislation relating to fire safety in buildings in Ireland is the Fire Services Act, 1981 and Regulations made under this Act. In addition to specifying general obligations with regard to fire safety set out in 1.2 above, the Act empowers persons authorised by a fire authority to inspect premises for the purposes of the Act, and to take appropriate enforcement action if so warranted.

### **1.5.2 Building Control Act, 1990**

The Building Control Act, 1990 and associated Regulations apply minimum standards to the design and construction of new buildings, extensions, alterations and prescribed changes of use of existing buildings. Part B of the Building Regulations, 1997 details the fire safety requirements to be complied with.

Part III of the Building Control Regulations, 1997 sets out the requirements relating to the need to obtain a fire safety certificate. A fire safety certificate is required in respect of most new buildings and in respect of existing buildings that are subject to certain material alterations and changes of use. A fire safety certificate is required in respect of the following:

- The construction of any new building which is to be used for guest accommodation; or
- A material change of use of any existing building, including a dwelling house, which is to be used for guest accommodation; or
- A material alteration or extension of any existing building which is currently used for guest accommodation.

Technical Guidance Document B (Fire Safety), 1997 provides guidance on how to comply with the requirements of Part B of the Building Regulations. Responsibility for complying with the building regulations rests primarily with the owners, designers and builders of buildings. Local building control authorities are responsible for overseeing compliance with the regulations and have powers of inspections and can, where necessary, undertake enforcement action to ensure compliance.

### **1.5.3 Tourist Traffic Act, 1939-1995**

The Tourist Traffic Act, 1939-1995, the Classification System for Guesthouses in Ireland and the Accommodation Requirements for Irish Homes also contain fire safety provisions, including a requirement to comply with the Fire Services Act, 1981.

### **1.5.4 Safety, Health and Welfare at Work Act, 1989**

The Safety, Health and Welfare at Work Act, 1989 is also relevant, in the context of guest accommodation being a place of work. Further information on this legislation is available from the Health and Safety Authority, 10 Hogan Place, Dublin 2.

### **1.5.5 Planning and Development Act, 2000**

The Planning and Development Act, 2000 contains a general obligation to obtain permission from the relevant planning authority in respect of development. Exempted development or development for which permission has been granted under this Act, does not imply that such development is exempt from the provisions of the Fire Services Act, Building Control Act, Tourist Traffic Act, Safety, Health and Welfare at Work Act, or any other relevant statutory provision.



# Chapter 2 Fire Safety Management

## 2.1 Introduction

Section 1.3 refers to a two pronged approach to fire safety in guest accommodation and states the aims of this strategy. This Chapter provides practical guidance on how to implement a fire safety management policy, suitable for guest accommodation.

A fire safety management policy is required, in the first instance, to minimise the risk of fires occurring and secondly, should a fire occur, to enable guests and other persons on the premises to be aware of the danger and to evacuate the premises safely.

To implement a fire safety management policy, it is necessary to devise and put in place a practical programme incorporating a number of essential elements (see Section 2.2 below). However, such a programme requires personal commitment if it is to be effective. In guest accommodation, the person who runs the business should oversee this programme, or alternatively responsibility could be delegated to a specifically nominated member of staff.

Many of the elements in the fire safety programme relate to good housekeeping and can generally be implemented without significant cost implications. Nevertheless they form an essential component of fire safety management.

It is recommended that the fire safety programme should be formalised by having a brief written statement, outlining the essential elements under each of the different headings as described in the following sections. It is also important that records are kept, in the form of a fire safety register (see Section 2.8), as this will assist in confirming that the programme is being implemented.

## 2.2 Fire Safety Programme

The fire safety programme for guest accommodation should incorporate the following components:

- Fire prevention measures (see Section 2.3)
- Action to be taken in the event of fire (see Section 2.4)
- Ensuring the availability of escape routes (see Section 2.5)
- Maintenance of fire protection equipment and building services (see Section 2.7)
- Keeping fire safety records (see Section 2.8).

## 2.3 Fire Prevention Measures

Fire prevention measures help to reduce or eliminate the risk of fires occurring. These are essentially items that relate to good housekeeping and awareness of potential fire hazards. Guests also need to be aware of their role in fire prevention.

The potential causes of fires include the following:

- Improper use of cooking facilities
- The use of defective heating appliances
- Unsafe use of open fires
- Inadequate supervision of laundry equipment, especially dryers
- Defective/overloaded electrical installations or equipment
- Misuse of electrical equipment
- Defective gas installations
- Misuse of smoking materials
- Improper storage or disposal of waste materials
- Damaged or improper upholstered furniture

This list is not exhaustive, or in any particular order of risk potential. An outbreak of fire could occur for any one, or combination of, these factors.

The risks associated with these items should be assessed, and measures put in place to minimise the risk in so far as is reasonably practicable. This exercise should include being satisfied that appropriate standards have been employed in the construction of the premises and on ongoing maintenance. It should also involve guests being aware of their responsibilities and this can be facilitated with the aid of notices, in addition to overall supervision.

Fire prevention does not need to be intrusive, but to be effective it requires ongoing awareness and commitment on the part of the person in charge and any persons employed on the premises.

## 2.4 Action to be taken in the Event of Fire

The fire prevention measures referred to above should minimise the risk of fire. However the possibility of a fire at any time for whatever reason cannot be totally eliminated. The greatest danger arises if a fire occurs at night, when people are asleep. The volumes of smoke produced by even a small fire can fill a room or corridor very quickly. The presence of a functioning fire alarm system should provide early warning of a fire.

A notice of the procedures to be followed by guests in the event of a fire should be provided in all guest bedrooms, displayed on the back of each bedroom door. This should concentrate on evacuation of the premises when hearing the fire alarm or other warning and drawing attention to the means of escape. Instructions should be clear and concise and should preferably be multi-lingual to cater for foreign guests. As guests are unlikely to be familiar with the internal layout of the premises, the instructions should include a simple location map, indicating the escape routes relative to each room.

The person in charge of the premises and all staff should know what to do in the event of a fire. A written procedure should be in place for the following:

- How to quickly evacuate the premises;
- Who will call the fire brigade?
- How to account for all persons on the premises.

Generally, guests should be able to evacuate the premises themselves. However it is important to ensure that they have responded to the alarm and have evacuated the premises. Prompt action is required in these circumstances. The situation is all the more critical where a fire occurs at night, when people are asleep.

A fire drill is a rehearsal of a real fire scenario. It is not essential to involve guests in such an exercise and it is not recommended to have an unannounced fire drill, because of the risk of injury. A drill is an important exercise and will reassure those in charge that they are prepared, if a fire was to occur in reality. It should involve any staff employed and should try to be as realistic as is practicable. Drills should be carried out at regular intervals and at least at the start of the tourist season and a record kept in the fire safety register. Each drill should be reviewed to identify any shortcomings in the procedures and the procedure should be revised, if considered necessary.

If it is safe to do so, it may be possible to extinguish a very small fire, with the aid of a fire extinguisher or fire blanket. It should be noted that portable fire-fighting equipment of this type requires training to use it properly and safely. The person in control and any staff employed should be familiar with the use of any such equipment provided.

An example of an emergency and evacuation procedure is included in Appendix A.

## 2.5 Escape Routes

In the event of a fire, it is essential that the escape routes from the premises are available for use and are not obstructed. The following precautions should be taken in relation to all escape routes :

- All escape routes are clearly indicated, are not obstructed, and are available for use at all times;
- The exit doors are capable of being readily and easily opened at all times;
- The external areas at or near exits are not obstructed; and
- The security arrangements for the premises do not impede or prevent the use of escape routes. Exit doors from the building should be capable of being opened from the inside without the use of a key.

## 2.6 Fire-Fighting Equipment

Fire extinguishers provide a means of extinguishing a fire at the early stages of development, before it has grown to a stage where the occupants are threatened. Guidance on the number, type and location of extinguishers is provided in *I.S. 291 : 1986 : The Use, Siting, Inspection and Maintenance of Portable Fire Extinguishers*.

Every storey of the premises should be provided with a minimum of one nine litres water type or one four kilograms general-purpose powder fire extinguisher (or a number and type of extinguishers with an equivalent rating). Kitchens should be provided with a fire blanket complying with *I.S. 415 : 1988 : Fire Blankets*.

## 2.7 Maintenance of Fire Protection Equipment and Building Services

The person in charge should be familiar with the fire safety features of the premises (as described in Chapter 3) and any fixed fire safety equipment provided. The principal equipment of this type is that which constitutes the fire alarm system. Non-fixed equipment would include portable fire extinguishers and fire-blankets. The principal building services are the electrical installation and the heating and hot water systems. Maintenance of all these systems and equipment is an essential element of the fire safety programme.

All fire protection equipment provided should be in good working order and any staff employed should be familiar with its use. Visual inspection to see that equipment is in place and is ready to use should be done routinely.

Fire alarm systems (see Section 3.4) should be tested regularly and maintained to ensure correct operation. Mains operated self-contained alarms should be tested at least monthly by the use of the test button provided on the units, to ensure operation of the sounders. All alarms should be tested at least once a year to ensure that they respond to fire. Other fire alarm systems should be inspected, tested and maintained in accordance with the recommendations contained in *I.S. 3218 : 1989 : Code of Practice for Fire Detection and Alarm Systems for Buildings - System Design, Installation and Servicing*. The person in charge can carry out the inspection and testing of the system, but arrangements for the system to be maintained should be made with a competent installation company.

Guidance on maintenance requirements for fire extinguishers is contained in *I.S. 291 : 1986 : The Use, Siting, Inspection and Maintenance of Portable Fire Extinguishers*.

Details relating to the number, type, location and maintenance record of fire protection equipment should be recorded in the fire safety register for the premises (see Section 2.8 below).

Building services also need to be maintained. Arrangements should be made with competent service companies for periodic checking of electrical installation and appliances, gas installations and appliances and the central heating system. A record of these checks, as well as any maintenance work carried out, should be recorded in the fire safety register.

It should be noted that where a material alteration of the premises is to be carried out, these works are subject to controls under the Building Control Act, and require a fire safety certificate (see Section 1.5.2). However minor works associated with normal repairs, decoration, maintenance, etc. are exempt from this requirement.

## **2.8 Fire Safety Records**

The keeping of fire safety records is an important element of the fire safety programme and for this purpose, a fire safety register for the premises should be established and maintained. The register should contain a complete record of all fire safety matters on the premises, it should be kept up to date and available for inspection if required.

The fire safety register should include at least the following information:

- Details of premises, including the maximum number of guests accommodated and details of escape routes;
- Emergency and evacuation procedures;
- A record of evacuation/fire drills carried out;
- Details of fire safety training provided;
- Details of fire-fighting equipment;
- Details of fire alarm system and maintenance records;
- A schedule of all fire resisting doors in the premises;
- Details of emergency lighting and maintenance records; and
- Details and maintenance records of building services.

A sample Fire Safety Register is included in Appendix A.

# Chapter 3 Premises - Fire Safety Measures

## 3.1 Introduction

This Chapter describes the principal fire safety measures required for all existing buildings used as guest accommodation, for the purpose of complying with the general duty of care under the Fire Services Act of 1981.

Some buildings used for guest accommodation were designed specifically as guest accommodation and should incorporate the fire safety provisions outlined in this Chapter. Others may have been private dwelling houses, or in some other use. Any such change of use is also subject to fire safety requirements and controls, under the Building Control Act (see Section 1.5.2).

Because of the range of premises that are used as guest accommodation, a guide such as this can only describe the fire safety measures that are necessary for some of the more general situations.

By the nature of the issues covered, it is necessary to refer in a number of instances to some technical terms and standards, which may require further explanation and interpretation.

An assessment of the adequacy of the fire safety features of individual premises should be undertaken.

## 3.2 Principal Fire Safety Measures

The fire safety measures required for a building to be used for guest accommodation are principally related to ensuring that should a fire occur it will be detected at an early stage and adequate means of escape are provided for safe evacuation of the premises.

If an outbreak of fire occurs, its spread and development should be limited by the construction elements of the building such as walls, floors and corridors, until all the occupants have evacuated safely and the emergency services have been alerted.

To reduce the risk of accidental fires caused by faulty building services (such as electrical installation, gas services and heating systems), it is important that these services have been installed to correct standards and have been adequately maintained.

In addition to the fire prevention measures outlined in Section 2.3, furnishings and fittings should be such that they will not lead to rapid fire-development and spread, should they be accidentally ignited.

If the emergency services are required, it is important that their vehicles will be able to gain access to the premises, without undue delay and that a supply of water is available for fire fighting if required.

Guidance on the principal fire safety measures are outlined in the following Sections of this Chapter:

- Means of Escape (Section 3.3)**
- Fire Alarm Systems (Section 3.4)**
- Fire Separation and Internal Linings (Section 3.5)**
- Building Services (Section 3.6)**
- Furnishings and Fittings (Section 3.7)**
- Access and Facilities for the Fire Service (Section 3.8)**

## **3.3 Means of Escape**

### **3.3.1 Introduction**

Adequate means of escape should be provided from all guest accommodation. The term "means of escape" applies to the physical means, such as corridors or stairways, whereby a safe route or routes are provided for persons to evacuate a building in the event of fire, to a place of safety. A place of safety is an unconfined space in the open air at ground level, at a point clear of the building where the occupants are no longer in danger from a fire in the building.

As a general requirement, a safe route(s) should be provided to enable the occupants of any part of a building to leave by their own unaided efforts in an emergency. The escape routes should be available to the occupants for as long as is necessary to ensure safe evacuation. This will require parts of the escape routes, such as stairways, bedroom corridors, etc. to be protected from fire and its effects. The protection of escape routes includes the provision of a fire alarm system and emergency lighting as appropriate for the particular premises.

Consideration should be given to accommodating and providing for the safe evacuation of people with disabilities.

Security arrangements should not be such as to prevent the escape of persons from the building in the event of an outbreak of fire. In particular, fittings on windows and doors should be readily opened from the inside without the use of a key.



The extent of the means of escape requirements for guest accommodation depends on the size and complexity of the premises and on the number of occupants accommodated therein.

For the purpose of this guide a **habitable** room refers to any room used for living or sleeping, and includes a room used for storage, a kitchen or a utility room, but does not include a bathroom or toilet.

Any reference to the number of bedrooms in the guidance hereunder refers to the number of all bedrooms and includes guest bedrooms and any other bedrooms provided.

### 3.3.2 Components of Means of Escape

The means of escape provisions consist of horizontal escape routes (corridors) and, in the case of upper storeys, the vertical escape routes (stairways).

The horizontal escape routes are those parts of the escape from any part of the building, to a stairway in the case of upper storeys, or to an exit directly from the building to a place of safety.

The vertical escape routes are the stairways that lead from an upper storey to a place of safety outside the building at ground level.

Escape routes should meet certain criteria in relation to travel distance, availability of alternative escape routes, protection from fire, etc., and these are outlined in the following sections.

Parts of the horizontal and vertical escape routes may, depending on the size and complexity of the building, need to be protected from the effects of fire by means of fire resisting elements of construction. In all cases, stairways need to be protected from a fire in habitable rooms opening onto the stairway. In some situations, the stairway may need the added protection of being fully enclosed and separated from the accommodation by means of protected corridors or lobbies.

### 3.3.3 Alternative Escape Routes

As a general principle, there should be alternative escape routes from any point in a premises used for guest accommodation. The main escape route from the building is normally through the front entrance door, but other routes on the ground floor are generally available by way of doors or windows from other rooms directly to the outside.

An escape route from an upper storey includes the stairways, which constitute the vertical component of the escape route. Alternative escape routes from upper storeys require more than one escape stairway and these are required for premises which do not meet the criteria for

buildings which are permitted to be served by a single stairway (see Section 3.3.11 below).

Alternative escape routes are also required where the distance to be travelled along the escape route exceeds specified limits for specific locations and situations (see Section 3.3.4 below).

Where required, alternative escape routes should be remote from and independent of each other. On an upper storey, it should not be necessary to go through an enclosed escape stairway, which could be blocked with smoke, to reach the alternative stairway.

### 3.3.4 Travel Distance

The distance to be travelled along different parts of an escape route should be limited according to certain criteria as set out in **Table 3.3.4** below.

Travel distance is the actual distance to be travelled by a person along an escape route, from the furthest point in the room, corridor or other area under consideration.

The total travel distance is the sum of the distances of the different horizontal components of the means of escape.

**Table 3.3.4 Limitation on Travel Distance**

Location	Single Escape Route	Alternative Escape Routes Available
Bedroom (See Note 1)	10 m	20 m
Bedroom corridor (See Note 2)	10 m	35 m
From a bedroom door to the head of a stairway (See Note 3)	7.5 m	N/A
Elsewhere	20 m	35 m

**Note 1:** Limitation refers to that part of the total travel distance, which is within a bedroom.

**Note 2:** Limitation refers to the travel distance from a bedroom door to a final exit from the building, to a doorway into a protected stairway, or to a doorway to an external escape stairway,

**Note 3:** In the case of a single protected escape stairway with habitable rooms opening directly into the protected stairway enclosure (see limitations to this situation in Section 3.3.9 below).

### 3.3.5 Protection of Escape Routes

Certain parts of the horizontal and vertical escape routes from a building need the added protection of fire resisting construction. This principally relates to corridors (see 3.3.8 below) and to escape stairways (see 3.3.9 below), and applies to the enclosing construction, including the walls and doors. There are specific requirements in this regard related to fire doors (see 3.3.6 below).

Fire resisting construction is generally specified by reference to a time (in minutes) in a standard fire resistance test (e.g. when tested to *BS 476 : Fire tests on building materials and structures : Parts 20 to 24*). Guidance on the fire resistance performance of other elements of construction is contained in Technical Guidance Document B (Fire Safety) to the Building Regulations, 1997.

### 3.3.6 Fire Doors

Fire resisting doors (referred to as fire doors) play an essential role in protecting the means of escape. A fire door refers to the entire door assembly, including the frame, leaf(s), hardware and seals between the leaf and frame. Fire doors are described in terms of their fire resistance in minutes (integrity test), e.g. FD30S. In this example 30 minutes is the period of fire resistance and the suffix (S) refers to an element of smoke leakage protection.

New construction should have fire doors that meet the required fire resistance, and should have certification to this effect. In the case of existing buildings, an assessment of the fire resistance of existing doors may be required, where these have not been installed specifically as fire doors. Many existing doors will have some degree of fire resistance or are capable of being upgraded to achieve a satisfactory resistance. This may involve the fitting of seals and self-closing devices and additional treatment of critical parts of the door and frame. The techniques for upgrading are well established and may be a preferable option to replacement, especially in the case of heritage buildings where preservation of original doors is an important conservation issue.

To be effective, fire doors should normally be kept closed. For this purpose, all fire doors should be fitted with self-closing devices that are capable of closing the door automatically. Fire doors should never be wedged or held in the open position, as this could seriously jeopardise the safety of the occupants in the event of a fire.

### 3.3.7 Single Storey Building

In a single storey building the means of escape consists of only a horizontal component. The main considerations in this situation are the limitation on travel distance (see 3.3.4 above) and the protection of the escape route from a bedroom door to a final exit.

For the purpose of protecting the escape route from the bedrooms, the entrance hallway and any bedroom corridor should be separated from all habitable rooms by 30 minutes fire resisting construction. This requirement applies also to the doors, which should have a 30 minutes fire resistance (FD30S), except for bedroom doors where a rating of 20 minutes (FD20S) is acceptable.

**Diagram 1** shows a typical layout of a small single storey building with a protected entrance hallway/corridor.

### 3.3.8 Protected Corridors

In larger premises, corridors more than 12 m long connecting alternative escape routes should be effectively sub-divided by fire doors at approximately the mid-point between stairways. Such doors may be held in the open position by means of an electro-magnetic device that will release the door automatically on activation of an adjacent smoke detector on the fire alarm system.

### 3.3.9 Protected Escape Stairways

A protected escape stairway is a stairway that is protected from the effects of fire in the adjacent accommodation by means of fire resisting construction. The walls, doors and ceiling forming the enclosure to a protected escape stairway should have a fire resistance of not less than 30 minutes. It should be noted that in the case of a two-storey private dwelling house, the stairway is not normally constructed as a protected stairway. However, for guest accommodation an escape stairway must have a defined level of fire protection.

In a two-storey building with a single stairway rooms may open directly into the stairway enclosure, provided the enclosing construction and doors are fire resisting. In buildings with three or more storeys (with an exception for a small three-storey building) stairways should be separated from the accommodation by means of protected corridors or lobbies (see 3.3.10 below).

**Diagram 2** shows a layout of a typical small two-storey building with rooms opening directly into the protected escape stairway.

Ideally, there should be no storage cupboards, etc. within a protected stairway and any such areas should be separated from the stairway by 30 minutes fire resisting construction.

Every protected escape stairway should lead directly to a place of safety outside the building at the ground floor level. Escape stairways should also be provided with openable windows, or a roof-light at the top, for the purpose of providing smoke ventilation.

### 3.3.10 Provision of Protected Lobbies

In the case of a building with three or more storeys above ground level, habitable rooms should not open directly into a protected stairway, and should be separated from the protected stairway by means of a protected lobby or corridor at all storey levels, except the topmost storey. In these situations there should be a fire door between the protected stairway and the protected corridor or lobby, i.e. there are two fire doors between any habitable room and the stairway.

An **exception** to the requirement to provide a protected corridor or lobby to the stairway may be made in the case of a building with a single protected escape stairway (see limitations in Section 3.3.11 below) in the following situations only:

- The building has not more than three storeys above the ground level (i.e. ground storey and not more than two upper storeys), and
- Each upper storey has not more than four bedrooms.

In the situation described above, the rooms open directly into the protected stairway. Protection to the stairway should be provided by fire resisting construction including self-closing fire doors to all habitable rooms at the ground, first and second storey levels.

**Diagram 3** shows a typical layout of a small three-storey building with a protected corridor or lobby to the stairway at the ground and first floor levels.

### 3.3.11 Building with a Single Protected Escape Stairway

Alternative escape routes, by way of alternative and independent protected escape stairways, are required where the travel distance exceeds the relevant limitation for travel distance set out in Section 3.3.4 above.

A single protected escape stairway complying with the requirements outlined in Section 3.3.9 above is permitted only in the following situations:

- The floor of the highest storey is not more than 10 m above ground level; and
- The limitations on travel distance (see Section 3.3.4 and Table 3.3.4) for single escape routes are satisfied.

### 3.3.12 External Escape Stairways

An existing external escape stairway is acceptable only where the following conditions are satisfied:

- The floor of the highest storey served by the stairway is not more than 10 m above ground level,
- All doors giving access to the stairway are fire doors, unless it is at the head of the stairway, leading downwards;
- Any part of the external walls within 1.8 m of, and vertically below, the flights and landings of a stairway leading downwards is fire-resisting (note: any windows should be fire resisting and fixed shut);
- The stairway is constructed from non-combustible materials; and
- Protection is provided, by means of fire resisting construction, for any part of the building within 3 m of the escape route, from the foot of the stairway to a place of safety.

Guidance on the construction of external escape stairways is contained in Technical Guidance Document K (Stairways, Ladders, Ramps and Guards) to the Building Regulations, 1997.

### 3.3.13 Windows

Windows do not form part of the primary means of escape. However they may serve a useful purpose as a secondary escape provision, or for rescue.

New and replacement windows to habitable rooms should be suitable for escape or rescue. For this purpose the opening section of the window should be approximately 850 mm by 500 mm and the bottom of the opening section should be between 800 mm and 1,100 mm above the floor.

### **3.3.14 Provisions for Persons with Disabilities**

The evacuation of persons with disabilities, such as impaired mobility, sight or hearing, requires special consideration. It would be prudent to accommodate such persons on the ground floor storey of the premises.

General guidance on the provision of means of escape for disabled persons is contained in *BS 5588 : Part 8 : 1999 : Code of practice for means of escape for disabled people*. The principles outlined in this standard are based on the provision of refuge areas and the management of evacuation.

### **3.3.15 Mixed Use Building**

Where the guest accommodation is ancillary to some other use, such as a shop or public house, the guest accommodation should be provided with independent means of escape. Any connection between the other use and the means of escape from the accommodation should only be by way of a protected lobby. The fire alarm system for the building should comply with the requirements set out in 3.4.3 below and should provide alarm coverage to both parts of the premises.

### **3.3.16 Basements**

Where there is a basement or lower-ground floor, these areas should be provided with alternative escape routes by means of independent protected escape stairways, or directly to the outside in the case of lower-ground storeys.

In a building with a single protected escape stairway serving the upper storeys, this stairway should not extend down to any basement or lower-ground storey. The stairway serving the basement or lower-floor storey should be separated from and independent of the stairway serving the upper storeys.

### **3.3.17 Inner Rooms**

An inner room is a room where escape is possible only by passing through another access room. Inner rooms are not acceptable for guest accommodation, except in the case of an en-suite bathroom or a small storage room.

### 3.3.18 Emergency Lighting

In the event of a fire, it is possible that the mains lighting system may fail and this would make evacuation of the premises difficult, if not impossible. To provide for this, it is normal to provide a system of emergency lighting to illuminate the escape routes on failure of the mains electrical supply.

Emergency lighting should be provided in accordance with the recommendations of *I.S. 3217 : 1989 : Code of Practice for Emergency Lighting*. Emergency lighting fittings are required in protected stairways and protected corridors/lobbies to indicate the direction of escape.

The emergency lighting system should be regularly inspected, tested and maintained, as recommended in the Irish Standard and a record kept in the fire safety register for the premises.

**Diagram 1 - Typical layout of small single storey guesthouse with protected entrance hallway/corridor**

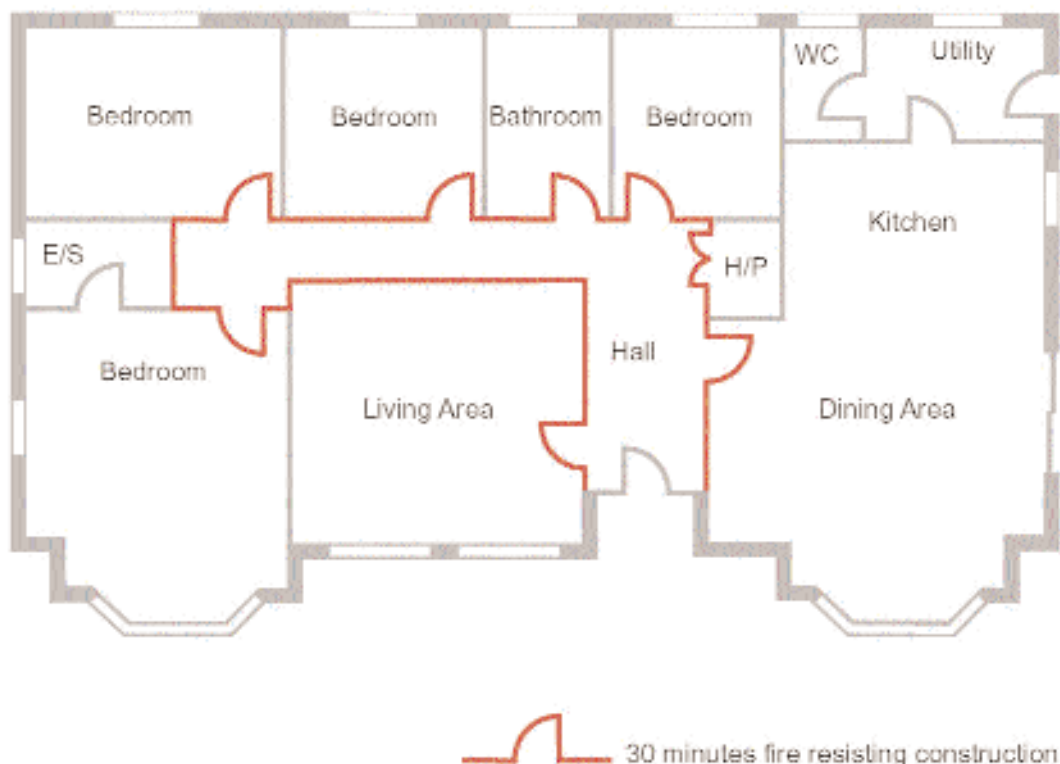
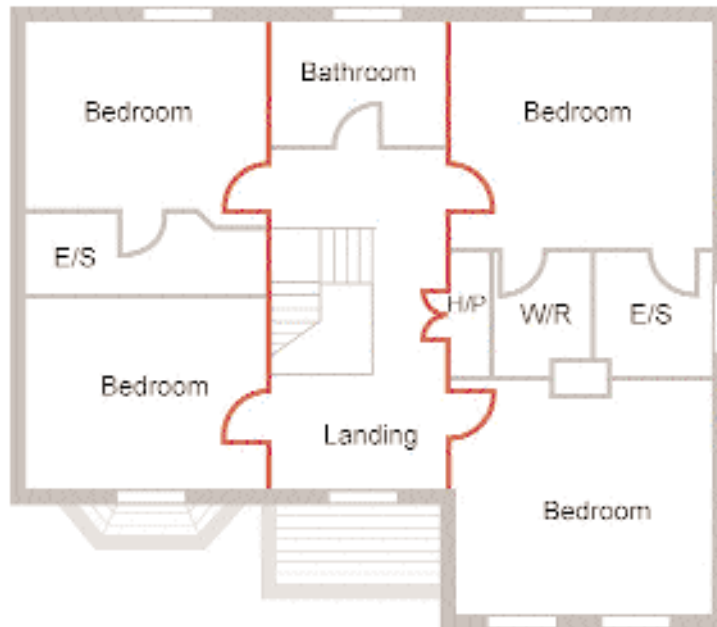
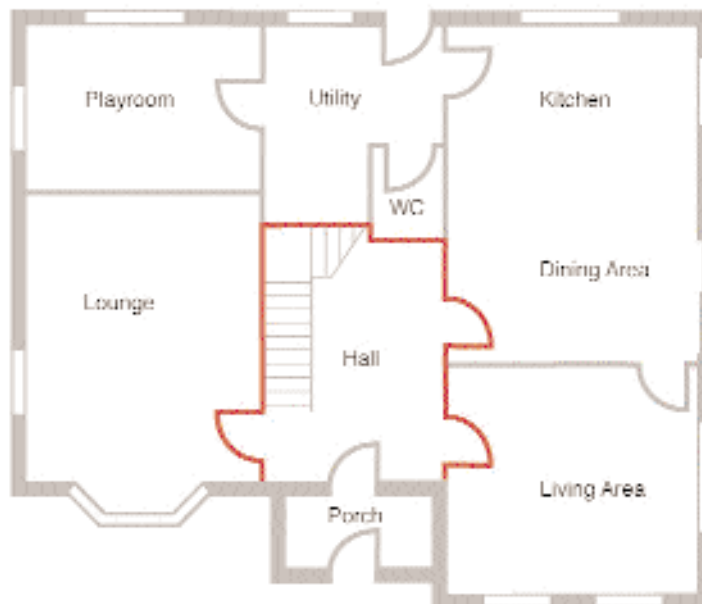




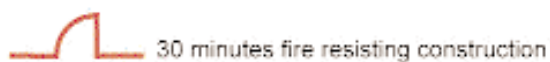
Diagram 2 - Typical small two-storey guesthouse with protected escape stairway



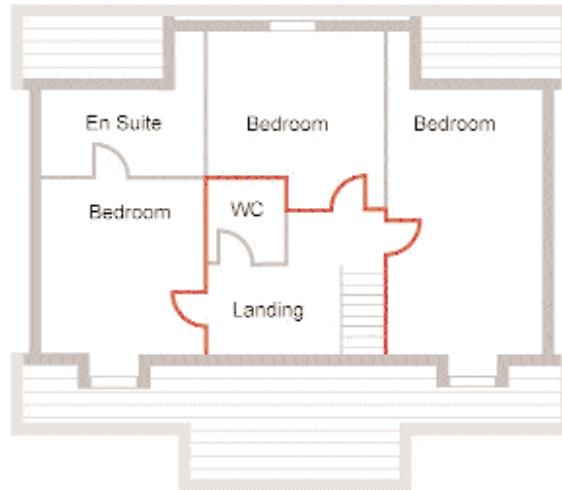
First Floor Plan



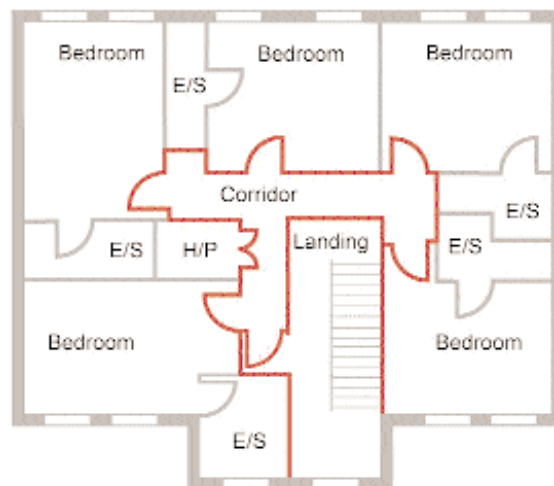
Ground Floor Plan



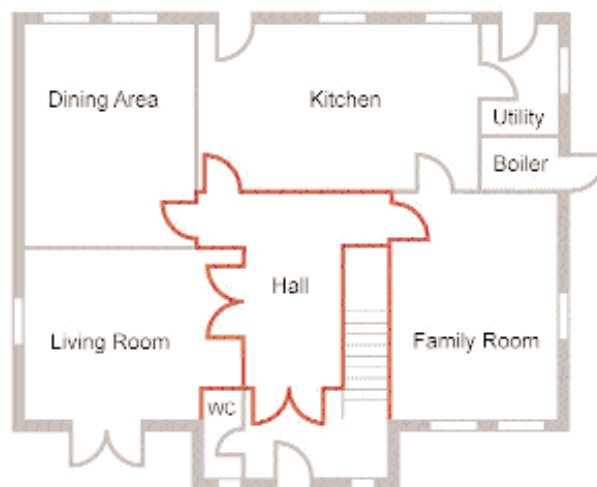
**Diagram 3 - Example of small three-storey guesthouse with protected corridor/lobby to stairway at ground and first floor levels**



Second Floor Plan



First Floor Plan



Ground Floor Plan

 30 minutes fire resisting construction

## 3.4 Fire Alarm Systems

### 3.4.1 Introduction

A fire alarm system is required in every premises used for guest accommodation, to provide early warning of an outbreak of fire and to ensure that the escape routes can be safely used.

A fire alarm is comprised of a number of components, such as detectors, bells, wiring and control mechanism. Some fire alarm systems, such as those based on self-contained units (see Section 3.4.2) have some of these components combined. Other systems, such as those outlined in 3.4.3 below are more comprehensive, especially in respect of a central control facility.

The extent and type of system required depend on the size and complexity of the premises.

### 3.4.2 Fire Alarm System based on Self-contained Alarm Units

Guidance on the provision of a fire alarm system based on self-contained units is contained in *BS 5839 : Part 6 : 1995 : Code of practice for the design and installation of fire detection and alarm systems in dwellings*. This British Standard refers to different grades of alarms and types of fire detection and alarm systems, providing varying levels of protection. The grade of system (grades A to F) principally concerns the nature of the detector and alarm units employed while the types of the system (types LD1 to LD3) relate to the extent of the detector coverage to be provided.

A fire alarm system based on self-contained units is acceptable only in the following situations:

- In a single-storey building with not more than six bedrooms; or
- In a two-storey building with not more than four bedrooms on the first floor.

The grade of system used in guest accommodation should be at least **Grade C**. This grade is based on the provision of interconnected mains-powered smoke alarms (smoke detector and alarm sounder in a self-contained unit), each provided with an integral standby power supply and provided with an element of central control. The central control facility, which should be located in the entrance hallway, should provide a facility for testing the alarm system, a means for sounding all alarm units simultaneously, and means for the location of an alarm source.

The alarm system should be type **LD1** as defined in the British Standard. The system should incorporate suitably located and interconnected mains-operated alarms (with integral battery backup) in all circulation areas that form part of the escape routes and in all habitable rooms,

including bedrooms, living rooms, store rooms and kitchen. To prevent nuisance activation, a kitchen should only be fitted with a heat detector. It should be noted that Grade F alarms, which are battery-powered only, are not adequate for this application.

### 3.4.3 Other Fire Alarm Systems

A fire alarm system in accordance with the recommendations of *I.S. 3218 : 1989 : Code of Practice for Fire Detection and Alarm Systems for Buildings - System Design, Installation and Servicing* should be provided in any building where a system based on self-contained units is not acceptable (see 3.4.2 above).

Fire alarm systems based on this Irish Standard incorporate manual call points for raising the alarm, alarm sounders, automatic detection of smoke/heat by suitably located detectors, control and indicating equipment, and cabling.

The type of fire alarm system should meet the requirements for a type **L2** life safety system, as defined in the Irish Standard. An L2 system requires automatic fire detection in all escape routes and in all rooms (with the exception of toilets/bathrooms), including bedrooms and other high-risk rooms located off the escape routes. Smoke detectors should be provided in escape routes while smoke or heat detectors may be used, as appropriate in other rooms. If the guest accommodation is ancillary to some other use, such as a shop or public house, the fire alarm system should cover all parts of the premises (i.e. a type **L1** system).

The alarm system should be designed and installed in accordance with the recommendations of the Irish standard. The system should be regularly inspected, tested and maintained, as recommended in the Irish Standard and a record kept in the fire safety register for the premises.

## 3.5 Fire Separation and Internal Linings

### 3.5.1 Fire Separation

The principal method of restricting the spread of fire between different parts of a building is for floors, walls and doors to have an appropriate level of fire resistance. These include the upper floors of the building and walls separating any high fire-risk areas such as laundries, kitchens, storage rooms, etc. The minimum period of fire resistance for such elements of construction is 30 minutes. In a two-storey building with not more than four bedrooms on the first floor, a "modified" 30 minutes (15 minutes integrity and insulation) rating for an existing floor construction would be acceptable.

In a building with more than four storeys, the floor construction and other elements of structure should have a fire resistance of not less than 60 minutes. In a building with a basement or lower-ground storey, the period of fire resistance for the ground floor should be 60 minutes.

Where guest accommodation is ancillary to some other use, such as a shop or public house, the floor and walls separating the guest accommodation should have a fire resistance of not less than 60 minutes.

Fire resisting construction is also required to protect the means of escape (see Section 3.3). This generally relates to the walls, including any doors, enclosing the escape routes.

In some situations, and subject to certain limits, glazing may be incorporated into fire resisting walls and doors. Guidance on the use of glazing in such situations, and on the fire resistance performance of other elements of construction is contained in Technical Guidance Document B (Fire Safety) to the Building Regulations, 1997.

### 3.5.2 Internal Linings

The fire and thermal properties of the internal walls and ceiling linings of a building can influence the spread and severity of a fire. For this reason, controls are required on the combustibility and surface spread of flame characteristics of all lining materials.

Wall and ceiling linings in protected escape routes should have a Class 0 as defined in Technical Guidance Document B (Fire Safety) to the Building Regulations, 1997, while all other areas should have a rating of not less than Class 1 to BS: 476: Part 7: 1987 (1993).

Any non-combustible material, such as plaster, brickwork, blockwork or plasterboard has a Class 0 performance rating. Combustible materials such as timber will not meet either Class 0 or Class 1 performance. The fire risks associated with combustible wall linings require careful assessment and may require removal or treatment where appropriate to achieve a satisfactory level of performance. Guidance on the fire performance of wall and ceiling lining materials is contained in Appendix A of Technical Guidance Document B, 1997.

## 3.6 Building Services

### 3.6.1 Introduction

Building services such as electrical, gas and heating are potential sources of fire, and equipment associated with them should be installed and maintained in accordance with the relevant standards and codes of practice.

### 3.6.2 Electrical Services

Fire can be caused by defective or inadequate electrical installations or by the use of defective electrical equipment. The electrical installation comprising wiring, sockets, switches, distribution boards and other equipment should be in accordance with the *National Rules for Electrical Installations (ET 101)* published by the Electro-Technical Council of Ireland.

Electrical appliances should conform to a standard appropriate at the time of manufacture such as the relevant parts of *I.S. 205 : Part 1 : 1980 : Safety of Household and Similar Electrical Appliances (General Requirements)*. Commercial electrical catering equipment should comply with the relevant parts of *BS 5784 : Safety of electrical commercial catering equipment*.

Emergency lighting (see Section 3.3.18) should be inspected, tested and maintained in accordance with the recommendations of *I.S. 3217 : 1989 : Code of Practice for Emergency Lighting*.

The fire alarm system should be inspected, tested and maintained in accordance with the recommendations of the relevant standard (see Section 3.4.2 and 3.4.3)

### 3.6.3 Gas Installations

All gas installations, storage tanks, pipe lines, gas burning flues and other equipment should be installed, fitted and maintained in accordance with the appropriate standards, including *I.S. 820: 2000 Non-Domestic Gas Installations and I.S. 813 : 1996 : Domestic Gas Installations*, as appropriate.

Liquefied Petroleum Gas (LPG) cylinders should not be utilised or stored inside any building used for guest accommodation.

Gas supply pipes or meter installations should not be accommodated with protected escape routes.

Any tank installation for the storage of LPG should conform to *I.S. 3216 : 1988 Code of Practice for the Bulk Storage of Liquefied petroleum gas*. The installation should be operated and maintained in accordance with the recommendations of the Irish Standard.

### 3.6.4 Heating

Heating appliances and open fires are a potential source of ignition. Open fires, where provided in sitting rooms, should be carefully supervised (see Chapter 2). Bedrooms should not be provided with open fires, or any type of portable fires/heaters.

Individual heating appliances, where provided, should be fixed in position. They should not have an exposed flame or heating-element, which could lead to accidental ignition of combustible material. All heating appliances and installations should be in safe working order and be properly maintained.

Guidance on the installation of heat-producing appliances, including provisions for adequate air supplies, flues, protection of buildings, etc., is contained in Technical Guidance Document J (Heat Producing Appliances) to the Building Regulations, 1997.

### **3.7 Furnishings and Fittings**

Furnishings and fittings should be of a standard that they cannot be ignited easily or do not contribute to the rapid spread of fire. Items that need to be considered in this regard include upholstered seating, curtains, drapes and blinds and floor coverings.

Upholstered furniture should be in good condition and should meet the minimum standard of resistance against accidental ignition for domestic upholstered furniture. Replacement furniture should pass the smouldering cigarette test and ignition source Grade No. 5 as defined in Irish Standard *I.S. 254 : 1983 Flame Resistance Requirements for Upholstery*.

Beds and bed-linen may be ignited by flaming and/or smouldering ignition sources such as matches, cigarettes, radiant heaters or by faulty electric blankets. As a general functional requirement, bedding materials should not easily be ignited, or if ignition does occur, the resultant fire does not spread.

### **3.8 Access and Facilities for the Fire Service**

In the event of an outbreak of fire and the fire service is summoned, it is important that fire appliances are able to reach the premises, without undue restriction such as a narrow entrance roadway or gateway that might prevent or delay an effective response. When fire appliances arrive, a suitable water supply is essential to bring a fire under control.

Due to the variety of circumstances that exist, it is recommended that the local Fire Service be consulted with a view towards familiarising themselves as to any possible access difficulties and as to suitable sources of water for fire fighting in the immediate vicinity.





This appendix provides guidance to the type of records and other information that should be included in a fire safety register. The format of the register is not prescribed, but the forms in the following pages could be used to this purpose. These forms and associated documentation could be held in a loose-leaf folder or other filing system and kept in a secure location.

The Fire Safety Register should include at least the following information:

- Details of premises, including the maximum number of guests accommodated and details of escape routes;
- Emergency and evacuation procedures;
- Record of evacuation/fire drills carried out;
- Details of fire safety training provided;
- Details of fire-fighting equipment;
- Details of fire alarm systems and maintenance records;
- A schedule of all fire resisting doors in the premises;
- Details of emergency lighting and maintenance records
- Details of building services and maintenance records.



## Details of Premises

Name of Premises \_\_\_\_\_

Name of Person in Charge \_\_\_\_\_

Telephone Number of Premises \_\_\_\_\_

Address of Premises \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of Guest Bedrooms \_\_\_\_\_

Number of Guest Bed Spaces \_\_\_\_\_

Name of Person responsible for calling the Fire Brigade \_\_\_\_\_

### Plan of Premises

A plan of each floor of the premises, including details of the escape routes, should be included in the Fire Safety Register. These should ideally not be greater than A4 or A3 size format.



## Emergency and Evacuation Procedures

### If you become aware of a fire on the premises

- Raise the alarm by ..... (give details)

Investigate any other activation of the fire alarm (a fire may be detected automatically or may be activated by a break-glass call point). Assume that it is a genuine alert (unless you can readily establish a false alarm situation)

- Organise the evacuation of all persons on the premises
- Telephone the Emergency Services (dial 999 or 112) and request the Fire Brigade. When connected, give the following details :

Name of the Premises \_\_\_\_\_

Address of the Premises \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Location of the Premises  
(Landmarks, etc.) \_\_\_\_\_

Nature of the Fire \_\_\_\_\_

Give your name and telephone number or other information, when requested by the call taker.

- Leave the premises
- Account for all persons on the premises

**Do not allow anybody to re-enter the building for any reason or anything.**

**Do not open a door if you suspect a fire on the other side.**

**Do not re-enter the building until advised to do so by the fire brigade.**



## Record of Evacuation/Fire Drills

Date of Drill	Time of Drill	Description of Drill (including names of participating staff)	Comments





## Details of Fire Safety Training

<b>Name of Person receiving training</b>	<b>Training Details</b>	<b>Date of Training</b>



**Fire-Fighting Equipment**  
**(Fire Extinguishers, Fire Blankets)**

<b>Type and Size</b>	<b>Location</b>	<b>Description of Inspection and Maintenance Work</b>	<b>Date and Signature</b>



## Fire Alarm Systems

**System Description**

**Name of Installer**

**(Attach completion certificates, if available)**

Location of Equipment	Description of Inspection and Maintenance Work	Date and Signature



### Schedule of Fire Doors

Location	Operation of Self-Closing Device	Inspection Details	Date Inspected and Signature

**Notes:**

- Fire doors must never be wedged or similarly held open.
- All fire doors to be inspected regularly (at least monthly) for proper fitting and operation. Any damaged or improperly working doors to be repaired immediately.
- Release mechanism of any electro-magnetic devices to be tested regularly (at least weekly).





**Details of Emergency Lighting**  
(Attach original commissioning certificates)

<b>Type of Emergency Lighting Fitting (maintained, non-maintained, combined)</b>	<b>Location of Fitting</b>	<b>Description of Inspection and Maintenance Work</b>	<b>Date and Signature</b>



**Details of Building Services**  
**Electrical Installation, Gas Installation and Heating System**  
(Attach completion certificates, if available)

Description	Description of Inspection and Maintenance Work	Date and Signature



Fire Services Act, 1981

Code of Practice for the Management of Fire Safety in Places of Assembly

Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly

Building Control Act, 1990

Building Regulations, 1997

Building Control Regulations, 1997

Guide to Fire Precautions in Existing Hotels, Guesthouses and Similar Premises

Fire Safety in Hostels

Planning and Development Act, 2000

Technical Guidance Document B (Fire Safety) to the Building Regulations, 1997

Technical Guidance Document J (Heat Producing Appliances) to the Building Regulations, 1997

Technical Guidance Document K (Stairways, Ladders, Ramps and Guards) to the Building Regulations, 1997

Technical Guidance Document M (Access for People with Disabilities) to the Building Regulations, 2000

Tourist Traffic Act, 1939-1995

Safety, Health and Welfare at Work Act, 1989

*The above list of publications are available from the Government Publications Sale Office, Sun Alliance House, Molesworth Street, Dublin 2.*

National Rules for Electrical Installations (ET101) (2nd Edition, 1991) - *available from the Electro-Technical Council of Ireland, Parnell Avenue, Harolds Cross, Dublin 12.*

Irish Standards - *available from the Standards Sales Office, National Standards Authority of Ireland, Glasnevin, Dublin 9.*

British Standards - *available from Customer Services, British Standards Institution, 389 Chiswick High Road, London W4 4BR, England.*



## National Standards Authority of Ireland (Irish Standards)

I.S. 205	Safety of Household and Similar Electrical Appliances Part 1 :1980 General Requirements
I.S. 254 : 1983	Flame Resistance Requirements for upholstery.
I.S. 291 : 1986	The Use, Siting, Inspection and Maintenance of Portable Fire Extinguishers
I.S. 415 : 1988	Fire Blankets
I.S. 813 : 1996	Domestic Gas Installations
I.S. 820: 2000	Non-domestic Gas Installations
I.S. 3216: 1988	Code of Practice for the Bulk Storage of Liquefied Petroleum Gas
I.S. 3217 : 1989	Code of Practice for Emergency Lighting
I.S. 3218 : 1989	Code of Practice for Fire Detection and Alarm Systems for Buildings – System Design, Installation and Servicing

## British Standards Institution (British Standards)

BS 476 :	Fire tests on building materials and structures
Part 6 : 1989	Method of test for fire propagation for products
Part 7 : 1987 (1993)	Method for the classification of the surface spread of flame of products
Part 20 : 1987	Method for determination of the fire resistance of elements of construction (general principles)
Part 21 : 1987	Methods for determination of the fire resistance of loadbearing elements of construction
Part 22 : 1987	Methods for determination of the fire resistance of non-loadbearing elements of construction
Part 23 : 1987	Methods for determination of the contribution of components to the fire resistance of a structure
Part 24 : 1987	Method for determination of the fire resistance of ventilation ducts
BS 5588	Fire precautions in the design, construction and use of buildings
Part 8 : 1999	Code of practice for means of escape for disabled people
BS 5839 :	Fire detection and alarm systems for buildings
Part 1 : 1988	Code of practice for system design, installation and servicing
Part 6 : 1995	Code of practice for the design and installation of fire detection and alarm systems in dwellings
BS 5784	Safety of electrical commercial catering equipment