

fire safety risk assessment

residential care premises

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Contents

How to use this guide	2
Preface	3
Introduction	4
Part 1 Fire risk assessment	9
Step 1 Identify fire hazards	12
Step 2 Identify people at risk	14
Step 3 Evaluate, remove, reduce and protect from risk	15
Step 4 Record, plan, inform, instruct and train	36
Step 5 Review	42
Part 2 Further guidance on fire risk assessment and fire precautions	45
Section 1 Further guidance on fire risks and preventative measures	46
Section 2 Further guidance on fire-detection and warning systems	59
Section 3 Further guidance on firefighting equipment and facilities	63
Section 4 Further guidance on escape routes	67
Section 5 Further guidance on emergency escape lighting	104
Section 6 Further guidance on signs and notices	106
Section 7 Further guidance on recording, planning, informing, instructing and training	109
Section 8 Quality assurance of fire protection equipment and installation	117
Appendix A Example fire safety maintenance checklist	118
Appendix B Technical information on fire-resisting separation, fire doors and door fastenings	122
Appendix C Historic buildings	130
Appendix D Glossary	132
References	137
Further reading	141
Index	144

How to use the guide

This guide is divided into two parts:

- **Part 1** Explains what fire risk assessment is and how you might go about it. Fire risk assessment should be the foundation for all the fire precautions in your premises.
- **Part 2** Provides further guidance on fire precautions. The information is provided for you and others to dip into during your fire risk assessment or when you are reviewing your precautions.

The appendices provide example checklists, some detailed technical information on fire-resisting elements and advice on historic buildings.

This guide is one from a series of guides listed on the back cover.

The rest of this introduction explains how the law applies.

Technical terms are explained in the glossary and references to other publications listed at the end of the publication are identified by a superscript number in the text.

In this Guide reference is made to British Standards and standards provided by other bodies. The standards referred to are intended for guidance only and other standards could be used. Reference to any particular standard is not intended to confer a presumption of conformity with the requirements of the Regulatory Reform (Fire Safety) Order 2005 (the Order).¹

The level of necessary safety (or service) must be dictated by the findings of your risk assessment so you may need to do more or less than that specified in any particular standard referred to. You must be prepared to show that what you have done complies with any requirements or prohibitions of the Order¹ irrespective of whether you have relied on a particular standard.

Preface

This guidance gives advice on how to avoid fires and how to ensure people's safety if a fire does start. Why should you read it? Because:

- Fire kills. In 2004 (England and Wales) fire and rescue services attended over 33,400 fires in non-domestic buildings. These fires killed 38 people and injured over 1,300.
- Fire costs money. The costs of a serious fire can be high and afterwards many businesses do not reopen. In 2004, the costs as a consequence of fire, including property damage, human casualties and lost business, were estimated at £2.5 billion.

This guide applies to England and Wales only. It does not set prescriptive standards, but provides recommendations and guidance for use when assessing the adequacy of fire precautions in premises providing residential care. Other fire risk assessment methods may be equally valid to comply with fire safety law. The guide also provides recommendations for the fire safety management of the premises.

Your existing fire safety arrangements may not be the same as the recommendations used in this guide but, as long as you can demonstrate that they meet an equivalent standard of fire safety, they are likely to be acceptable. If you decide that your existing arrangements are not satisfactory there may be other ways to comply with fire safety law. This means there is no obligation to adopt any particular solution in this guide if you prefer to meet the relevant requirement in some other way.

Where the building has been recently constructed or significantly altered, the fire detection and warning arrangements, escape routes and facilities for the fire and rescue service should have been designed, constructed and installed in accordance with current building regulations. In such cases, it is likely that these measures will be satisfactory as long as they are being properly maintained and no significant increase in risk has been introduced.

This guide should not be used to design fire safety in new buildings. Where alterations are proposed to existing premises, they may be subject to building regulations. However, it can be used to develop the fire safety strategy for the building.

Introduction

WHO SHOULD USE THIS GUIDE?

This guide is for all employers, managers, occupiers and owners of permanently staffed premises providing residential care where some or all of the residents might require assistance in the event of a fire; e.g. where residents may not be able to make their way to a place of total safety unaided. It tells you what you have to do to comply with fire safety law, helps you to carry out a fire risk assessment and identify the general fire precautions you need to have in place.

It applies to premises where the main use is the provision of residential care (where the primary purpose is to provide of personal and/or nursing care, not healthcare treatment). Typical residential care premises include those where care is provided for:

- the elderly or infirm;
- children and young persons;
- people with special needs such as those with learning difficulties or with mental or physical disabilities; and
- people with addictions.

This guide may also be suitable for individual residential care premises that are part of other multi-use complexes, although consultation with other people responsible will be necessary as part of an integrated risk assessment for the complex. The relevant parts of this guide can also be used as a basis for fire risk assessment in premises where care is provided on a non-residential basis, e.g. day care centres.

The guide is not intended for use in:

- sheltered accommodation, where no care is provided;
- premises where the primary use is healthcare treatment, e.g. hospitals (including private) and other healthcare premises; and
- single private dwellings where out-posted nursing care is provided.

Details of other guides in the series are given on the back cover.

The guide has been written to provide guidance for a responsible person, to help them to carry out a fire risk assessment in most residential care premises. If you read the guide and decide that you are unable to apply the guidance, then you should seek the expert advice of a competent person. Premises with very large numbers of residents (e.g. greater than 60), or with complicated layouts (e.g. a network of escape routes, or split levels), or those of greater than four storeys, or which form part of a multi-occupied complex, will probably need to be assessed by a competent person who has comprehensive training or experience in fire risk assessment. However this guide can be used for homes which are part of multi-occupied buildings to address fire safety issues within the individual occupancy.

This guide is intended to underpin national minimum standards.

It may also be useful for:

- employees;
- employee-elected representatives;
- trade union-appointed health and safety representatives;
- enforcing authorities; and
- all other people who have a role in ensuring fire safety in premises providing residential care.

If your premises are listed as of historic interest, also see Appendix C.

Fire safety is only one of many safety issues with which management must concern themselves to minimise the risk of injury or death to staff, residents or visitors. Unlike most of the other safety concerns, fire has the potential to injure or kill large numbers of people very quickly. This guidance is concerned only with fire safety but many of the measures discussed here will impact upon other safety issues, and vice versa; it is recognised that these various differing safety demands can sometimes affect one another and management should consult other interested agencies (e.g. the Health and Safety Executive (HSE)) where necessary to confirm that they are not contravening other legislation/guidance.

You can get advice about minimising fire losses from your insurer.

THE FIRE SAFETY ORDER

Previous general fire safety legislation

The Order¹ replaces previous fire safety legislation. Any fire certificate issued under the Fire Precautions Act 1971² will cease to have any effect. If a fire certificate has been issued in respect of your premises or the premises were built to recent building regulations, as long as you have made no material alterations and all the physical fire precautions have been properly maintained, then it is unlikely you will need to make any significant improvements to your existing physical fire protection arrangements to comply with the Order.¹ However, you must still carry out a fire risk assessment and keep it up to date to ensure that all the fire precautions in your premises remain current and adequate.

If you have previously carried out a fire risk assessment under the Fire Precautions (Workplace) Regulations 1997,³ as amended 1999,⁴ and this assessment has been regularly reviewed then all you will need to do is revise that assessment taking account of the wider scope of the Order¹ as described in this guide.

Introduction

The Order¹ applies in England and Wales. It covers 'general fire precautions' and other fire safety duties which are needed to protect 'relevant persons' in case of fire in and around most 'premises'. The Order¹ requires fire precautions to be put in place 'where necessary' and to the extent that it is reasonable and practicable in the circumstances of the case.

Responsibility for complying with the Order¹ rests with the 'responsible person'. In a workplace, this is the employer and any other person who may have control of any part of the premises, e.g. the occupier or owner. In all other premises the person or people in control of the premises will be responsible. If there is more than one responsible person in any type of premises (e.g. a multi-occupied complex), all must take all reasonable steps to co-operate and co-ordinate with each other.

If you are the responsible person you must carry out a fire risk assessment which must focus on the safety in case of fire of all 'relevant persons'. It should pay particular attention to those at special risk, such as disabled people (mobility impairment or learning disability), those who you know have special needs and children, and must include consideration of any dangerous substance liable to be on the premises. Your fire risk assessment will help you identify risks that can be removed or reduced and to decide the nature and extent of the general fire precautions you need to take.

If you or your organisation employ five or more people, your premises are licensed (including registered, e.g. with Commission for Social Care Inspection), or an alterations notice is in force, you must record the significant findings of the assessment. It is good practice to record your significant findings in any case.

There are some other fire safety duties you need to comply with:

- **You must** appoint one or more 'competent persons', depending on the size and use of your premises, to assist in undertaking any of the preventive and protective measures required by the Order¹ (you can nominate yourself for this purpose). A competent person is someone with enough training and experience or knowledge and other qualities to be able to implement these measures properly.
- **You must** provide your employees with comprehensible and relevant information on the risks to them identified by the fire risk assessment, about the measures you have taken to prevent fires, and how these measures will protect them if a fire breaks out.
- **You must** consult your employees (or their elected representatives) about nominating people to carry out particular roles in connection with fire safety and about proposals for improving the fire precautions.
- **You must**, before you employ a child, provide a parent with comprehensible and relevant information on the risks to that child identified by the risk assessment, the measures you have put in place to prevent/protect them from fire and inform any other responsible person of any risks to that child arising from their undertaking.

- **You must** inform non-employees, such as temporary or contract workers, of the relevant risks to them, and provide them with information about who are the nominated 'competent persons', and about the fire safety procedures for the premises.
- **You must** co-operate and co-ordinate with other responsible persons who also have premises in the building, inform them of any significant risks you find and how you will seek to reduce/control those risks which might affect the safety of their employees.
- **You must** provide the employer of any person from an outside organisation who is working in your premises (e.g. agency providing temporary staff) with clear and relevant information on the risks to those employees and the preventive and protective measures taken. You must also provide those employees with appropriate instructions and relevant information about the risks to them.
- If you are not the employer but have any control of premises which contain more than one workplace, **you are also responsible** for ensuring that the requirements of the Order¹ are complied with in those parts over which you have control.
- **You must** consider the presence of any dangerous substances and the risk this presents to relevant persons from fire.
- **You must** establish a suitable means of contacting the emergency services and provide them with any relevant information about dangerous substances.
- **You must** provide appropriate information, instruction and training to your employees, during their normal working hours, about the fire precautions in your workplace, when they start working for you, and from time to time throughout the period they work for you.
- **You must** ensure that the premises and any equipment provided in connection with firefighting, fire detection and warning, or emergency routes and exits are covered by a suitable system of maintenance and are maintained by a competent person in an efficient state, in efficient working order and in good repair.
- **Your employees must** co-operate with you to ensure the workplace is safe from fire and its effects, and must not do anything that will place themselves or other people at risk.

The above examples outline some of the main requirements of the Order.¹ The rest of this guide will explain how you might meet these requirements.

Who enforces the Fire Safety Order?

The local fire and rescue authority (the fire and rescue service) will enforce the Order¹ in most premises. The exceptions are:

- Crown-occupied/owned premises where Crown fire inspectors will enforce;
- premises within armed forces establishments where the defence fire and rescue service will enforce;

- certain specialist premises including construction sites, ships (under repair or construction) and nuclear installations, where the HSE will enforce; and
- sports grounds and stands designated as needing a safety certificate by the local authority, where the local authority will enforce.

The enforcing authority will have the power to inspect your premises to check that you are complying with your duties under the Order.¹ They will look for evidence that you have carried out a suitable fire risk assessment and acted upon the significant findings of that assessment. If, as is likely, you are required to record the outcome of the assessment they will expect to see a copy.

If the enforcing authority is dissatisfied with the outcome of your fire risk assessment or the action you have taken, they may issue an enforcement notice that requires you to make certain improvements or, in extreme cases, a prohibition notice that restricts the use of all or part of your premises until improvements are made.

If your premises are considered by the enforcing authority to be high risk, they may issue an alterations notice that, amongst other things, requires you to inform them before you make any changes to your premises or the way they are used.

Failure to comply with any duty imposed by the Order¹ or any notice issued by the enforcing authority is an offence. You have a right of appeal to a magistrates court against any notice issued. Where you agree that there is a need for improvements to your fire precautions but disagree with the enforcing authority on the technical solution to be used (e.g. what type of fire alarm system is needed) you may agree to refer this for an independent determination.

If having read this guide you are in any doubt about how fire safety law applies to you, contact the fire safety office at your local fire and rescue service.

If your premises were in use before 2006, then they may have been subject to the Fire Precautions Act² and the Fire Precautions (Workplace) Regulations.^{3,4} Where the layout (means of escape) and other fire precautions have been assessed by the fire and rescue service to satisfy the guidance that was then current, then it is likely that your premises already conform to many of the recommendations here, providing you have undertaken a fire risk assessment as required by the Fire Precautions (Workplace) Regulations.^{3,4}

New buildings or significant building alterations should be designed to satisfy current building regulations which address fire precautions.²⁴ However, you will still need to carry out a fire risk assessment, or review your existing assessment (and act on your findings), to comply with the Order.¹

Part 1 Fire risk assessment

MANAGING FIRE SAFETY

As the responsible person for premises providing residential care you should be fully aware of the need to manage your premises well to ensure the safety and well-being of your residents from fire at all times. Your staff must be trained to prevent or limit the risk of fire, recognise and neutralise potential fire hazards, and know how to respond to an emergency individually and collectively by actions and communications. You should keep your staff up to date on any issues that might cause a potential hazard or risk, and expect them to keep you informed when they spot problems. Where appropriate, you should also keep residents informed about hazards and risks and how to avoid them.

Good management of fire safety is essential to ensure that fires are unlikely to occur; that if they do occur they are likely to be controlled or contained quickly, effectively and safely; or that, if a fire does occur and grow, your staff are able to ensure that everyone in your premises is able to escape to safety easily and quickly, or remain in safety.

You therefore need to have robust and well-kept procedures to avoid fires occurring, to maintain the fire safety systems installed in your premises, to keep escape routes usable, to keep your staff up to date and well trained, and have emergency plans in place so that everyone (and in particular your staff, since they will have a critical role) know how to respond to a fire in your premises.

The risk assessment that you must carry out will help you ensure that your fire safety procedures, fire prevention measures, and fire precautions (plans, systems and equipment) are all in place and working properly, and the risk assessment should identify any issues that need attention. Further information on managing fire safety is available in Part 2 on page 45.

WHAT IS A FIRE RISK ASSESSMENT?

A fire risk assessment is an organised and methodical look at your premises, the activities carried on there and the likelihood that a fire could start and cause harm to those in and around the premises.

The aims of the fire risk assessment are:

- To identify the fire hazards.
- To reduce the risk of those hazards causing harm to as low as reasonably practicable.
- To decide what physical fire precautions and management arrangements are necessary to ensure the safety of people in your building if a fire does start.

The term 'where necessary' (see Glossary) is used in the Order,¹ therefore, when deciding what fire precautions and management arrangements are necessary, you will need to take account this definition.

The terms 'hazard' and 'risk' are used throughout this guide and it is important that you have a clear understanding of how these should be used.

- **Hazard:** anything that has the potential to cause harm.
- **Risk:** the chance of that harm occurring.

If your organisation employs five or more people, or your premises are licensed or an alterations notice requiring it is in force, then the significant findings of the fire risk assessment, the actions to be taken as a result of the assessment and details of anyone especially at risk must be recorded. You will probably find it helpful to keep a record of the significant findings of your fire risk assessment even if you are not required to do so.

HOW DO YOU CARRY OUT A FIRE RISK ASSESSMENT?

A fire risk assessment will help you determine the chances of a fire starting and the dangers from fire that your premises present for the people who use them and any person in the immediate vicinity. The assessment method suggested in this guide shares the same approach as that used in general health and safety legislation and can be carried out either as part of a more general risk assessment or as a separate exercise. As you move through the steps there are checklists to help you.

Before you start your fire risk assessment, take time to prepare, and read through the rest of Part 1 of this guide.

Much of the information for your fire risk assessment will come from the knowledge your employees, colleagues and representatives have of the premises, as well as information given to you by people who have responsibility for other parts of the building. A tour of your premises will probably be needed to confirm, amend or add detail to your initial views.

It is important that you carry out your fire risk assessment in a practical and systematic way and that you allocate enough time to do a proper job. It must take the whole of your premises into account, including outdoor locations and any rooms and areas that are rarely used. If your premises are small you may be able to assess them as a whole. In larger premises you may find it helpful to divide them into rooms or a series of assessment areas using natural boundaries, e.g. areas such as kitchens or laundries, bedrooms, offices, stores, as well as corridors, stairways and external routes.

Under health and safety law (enforced by the HSE or the local authority) you are required to carry out a risk assessment in respect of any activities in your premises and to take or observe appropriate special, technical or organisational measures. If your health and safety risk assessment identifies that these activities are likely to involve the risk of fire or the spread of fire (for example in the kitchen or in a workshop) then you will need to take this into account during your fire risk assessment under the Order¹ and prioritise actions based on the level of risk.

You need to appoint one or more 'competent persons' (this could be you) to carry out any of the preventive and protective measures needed to comply with the Order.¹ This person could be an appropriately trained employee or, where appropriate, a third party.

Your fire risk assessment should demonstrate that, as far as is reasonable, you have considered the needs of all relevant people, including disabled people.

Figure 1 shows the five steps you need to take to carry out a fire risk assessment.

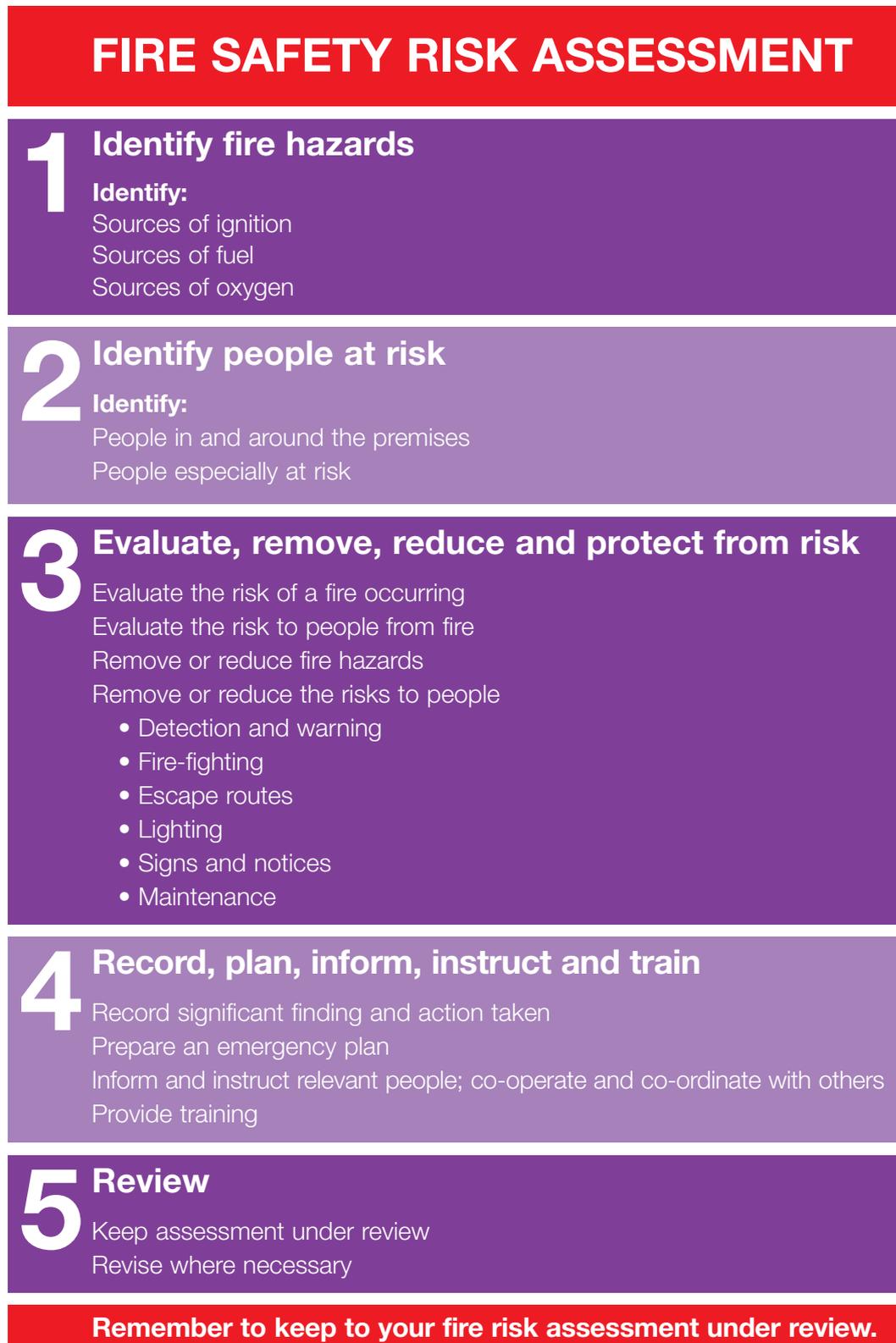


Figure 1: The five steps of a fire risk assessment

STEP 1 IDENTIFY FIRE HAZARDS

For a fire to start, three things are needed:

- a source of ignition;
- fuel; and
- oxygen.

If any one of these is missing, a fire cannot start. Taking measures to avoid the three coming together will therefore reduce the chances of a fire occurring.

The remainder of this step will advise on how to identify potential ignition sources, the materials that might fuel a fire and the oxygen supplies that will help it burn.

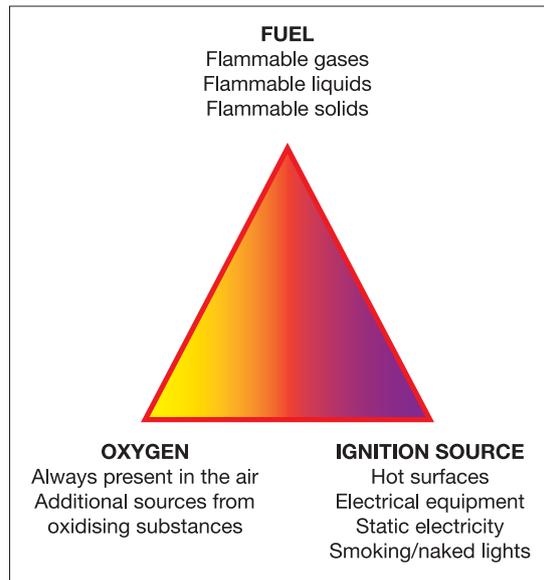


Figure 2: The fire triangle

1.1 Identify sources of ignition

You can identify the potential ignition sources in your premises by looking for possible sources of heat which could get hot enough to ignite material found in your premises. These sources could include:

- smoking materials, e.g. cigarettes, matches and lighters;
- naked flames, e.g. candles or gas or liquid-fuelled open-flame equipment;
- electrical, gas or oil-fired heaters (fixed or portable);
- cooking equipment;
- faulty or misused electrical equipment;
- lighting equipment;
- equipment owned or used by residents;
- hot surfaces and obstruction of equipment ventilation, e.g. photocopiers;
- hot processes, e.g. welding by contractors;
- arson, deliberate ignition, vandalism and so on.

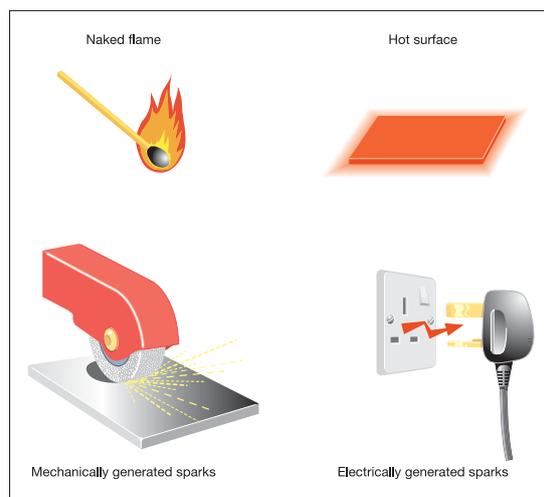


Figure 3: Sources of ignition

Indications of 'near-misses', such as scorch marks on furniture or fittings, discoloured charred electrical plugs and sockets, cigarette burns etc., can help you identify hazards which you may not otherwise notice.

1.2 Identify sources of fuel

Anything that burns is fuel for a fire. You need to look for the things that will burn reasonably easily and are in enough quantity to provide fuel for a fire or cause it to spread to another fuel source. Some of the most common 'fuels' found in premises providing residential care are:

- laundry supplies, such as bedding and towels, and medical supplies, such as disposable aprons;
- toiletries, aerosols;
- plastics and rubber (e.g. soft play or restraint areas), video tapes, polyurethane foam-filled furniture, foam-filled mats and polystyrene-based display materials;
- wood or wood-based furniture (permanent and temporary storage);
- textiles and soft furnishings, such as spare clothes and hanging curtains;
- private belongings, such as toys;
- seasonal and religious occasion decorations, such as Christmas decorations;
- items used in hobbies and crafts;
- flammable products, such as cleaning and decorating products, petrol, white spirit, methylated spirit, cooking oils, disposable cigarette lighters and photocopier chemicals;
- flammable gases such as liquefied petroleum gas (LPG), including aerosol canisters;
- paper products, packaging materials, stationery, advertising material, paper and books;
- waste products, particularly finely divided items such as shredded paper and wood shavings, off cuts, and dust; and
- waste storage, refuse containers and skips.

You should also consider the construction of your premises, and the materials used to line walls and ceilings, and how these might contribute to the spread of fire. You should check if the internal construction includes large areas of;

- hardboard, chipboard, block-board walls or ceilings;
- synthetic ceiling or wall coverings, such as polystyrene wall or ceiling tiles;
- flooring of polypropylene carpet or carpet tiles; or
- particular fixtures and fittings.

If these are present, and you are uncertain of the dangers they might pose, you should seek advice from a fire safety expert.

Further information is available in Part 2, Section 1.

1.3 Identify sources of oxygen

The main source of oxygen for a fire is in the air around us. In an enclosed building this is provided by the ventilation system in use. This generally falls into one of two categories: natural airflow through doors, windows and other openings; or

mechanical air conditioning systems and air handling systems. In many buildings there will be a combination of systems, which will be capable of introducing/extracting air to and from the building.

Additional sources of oxygen can sometimes be found in materials used or stored at premises such as:

- some chemicals (oxidising materials), which can provide a fire with additional oxygen and so help it burn. These chemicals should be identified on their container (and Control of Substances Hazardous to Health data sheet, see Figure 4) by the manufacturer or supplier who can advise as to their safe use and storage; or
- oxygen supplies from cylinder storage and piped systems, e.g. medical oxygen, oxygen used by contractors (e.g. in welding processes).



Figure 4: Label on oxidising materials

Checklist



- Have you identified all potential ignition sources?
- Have you identified all potential fuel sources?
- Have you identified all potential sources of oxygen?
- Have you made a note of your findings?

STEP 2 IDENTIFY PEOPLE AT RISK

As part of your fire risk assessment, you need to identify those at risk if there is a fire. To do this you need to identify where you have service users residing and staff working (either at permanent workstations or at occasional locations around the premises) and to consider who else may be at risk, such as visitors, visiting contractors etc., and where these people are likely to be found.

You must consider all the people who use the premises but you should pay particular attention to people who may be especially at risk such as:

- employees who work alone, either regularly or at specific times, e.g. cleaners, security staff, maintenance staff, nursing or care staff (especially at night);
- people who are in isolated areas of your premises such as contractors working in roof spaces or plant rooms and maintenance staff;
- people who are unfamiliar with the premises, e.g. agency or temporary staff, guests, visitors (including visiting medical or social care staff), contractors;

- unaccompanied children and young persons;
- residents (clients and service users) who are unable to escape unaided (young children, babies, elderly, physically disabled (in particular people with mobility impairment), mentally disabled, people with vision or hearing impairment, those with some other sensory impairment, those whose ability to escape unassisted is impaired due to medication, or who who may be intoxicated);
- people who are not able to leave the premises quickly (but do not require assistance), e.g. residents or visitors who are elderly or with limited disabilities,* parents with children or children; and
- people who might panic or react adversely to the fire, the alarm or the excitement.

In evaluating the risk to people with disabilities you may need to discuss individual needs with each relevant person and record specific arrangements within the care plan for the individual. The risk assessment should take into account the resident's medical conditions, sensory awareness and mobility. In large residential care homes, especially those providing services for those with very severe conditions, you may also need to consult a professional access consultant or take advice from disability organisations*.

Further guidance on people with special needs is given in Part 2, Section 1.



Checklist

- Have you identified who is at risk?
- Have you identified why they are at risk?
- Have you made a note of your findings?

STEP 3 EVALUATE, REMOVE, REDUCE AND PROTECT FROM RISK

The management of the premises and the way people use it will have an effect on your evaluation of risk. Management may be your responsibility alone or there may be others, such as the building owners or managing agents, who also have responsibilities. Some homes may be part of a complex and all those with some control must co-operate and consider the risk generated by others in the building.

To maintain a homely and non-institutional atmosphere, precautions should be introduced carefully, taking account of any possible adverse effects on the quality of service users' lives and the care they receive. For example, a self-closing door (which is a useful protection in the event of fire) is likely to be an inconvenience to older or disabled people or even cause an accident if care is not taken with the choice of door furniture (e.g. controlled free-swing self-closing device integrated with the automatic fire detection system) and its location.

*Visit the Disability Rights Commission website on www.drc-gb.org for more information.

3.1 Evaluate the risk of fire occurring

The chances of a fire starting will be low if your premises has few ignition sources and combustible materials are kept away from them.

In general, fires start in one of three ways:

- accidentally, such as when smoking materials are not properly extinguished or when bedside lights are knocked over;
- by act or omission, such as when electrical equipment is not properly maintained, or when waste is allowed to accumulate near to a heat source; and
- deliberately, such as an arson attack involving setting fire to external rubbish bins placed too close to the building.

Look critically at your premises and try to identify any accidents waiting to happen and any acts or omissions which might allow a fire to start. You should also look for any situation that may present an opportunity for an arsonist

Further guidance on evaluating the risk of a fire starting is given in Part 2, Section 1.

3.2 Evaluate the risk to people

In Step 2 you identified the people likely to be at risk should a fire start anywhere in the premises and earlier in Step 3 you identified the chances of a fire occurring. It is unlikely that you will have concluded that there is no chance of a fire starting anywhere in your premises so you now need to evaluate the actual risk to those people should a fire start and spread from the various locations that you have identified.

While determining the possible incidents, you should also consider the likelihood of any particular incident; but be aware that some very unlikely incidents can put many people at risk.

To evaluate the risk to people in your premises, you will need to understand the the way fire can spread. Fire is spread by three methods:

- convection;
- conduction; and
- radiation.

Convection

Fire spread by convection is the most dangerous and causes the largest number of injuries and deaths. When fires start in enclosed spaces such as buildings, the smoke rising from the fire gets trapped by the ceiling and then spreads in all directions to form an ever-deepening layer over the entire room space. The smoke will pass through any holes or gaps in the walls, ceiling and floor into other parts of the building. The heat from the fire gets trapped in the building and the temperature rises.

Conduction

Some materials, such as metal shutters and ducting, can absorb heat and transmit it to the next room, where it can set fire to combustible items that are in contact with the heated material.

Radiation

Radiation heats the air in the same way as an electric bar heater heats a room. Any material close to a fire will absorb the heat until the item starts to smoulder and then burn.

Smoke produced by a fire also contains toxic gases which are harmful to people. A fire in a building with modern fittings and materials generates smoke that is thick and black, obscures vision, causes great difficulty in breathing and can block the escape routes.

It is essential that the means of escape and other fire precautions are adequate to ensure that everyone can make their escape to a place of total safety before the fire and its effects can trap them in the building.

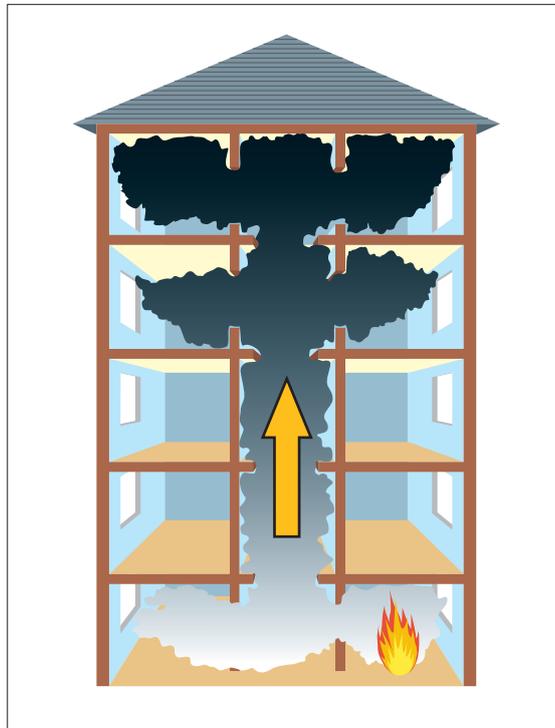


Figure 5: Smoke moving through a building

In evaluating this risk to people you will need to consider situations such as:

- fire starting on a lower floor affecting the escape routes for people on upper floors;
- fire developing in an unoccupied space that people have to pass by to escape from the building;
- fire or smoke spreading through a building via routes such as vertical shafts, service ducts, ventilation systems, poorly installed, poorly maintained or damaged walls, partitions and ceilings;
- fire and smoke spreading through a building due to poor installation of fire precautions, e.g. incorrectly installed fire doors (see Appendix B2 for more information on fire doors) or incorrectly installed services penetrating fire walls; and
- fire and smoke spreading through the building due to poorly maintained and damaged fire doors or fire doors being wedged open.

Further guidance on fire risks is given in Part 2, Section 1.

Where they suffer from limited mobility (or suffer claustrophobia), many residents in care homes may wish (or need) to keep their bedroom doors open, for ventilation or communications or comfort. Similarly, it can be of value to carers (and residents) to have doors open so that the carers can check the sleeping residents with a minimum of disturbance. A care home is not a prison; any fire safety systems should seek to not impair further the quality of life of the residents and the equipment provided and management procedures in place must be appropriate. In such cases, the use of 'hold-open' or 'free-swing' controlled door closing devices should be considered. See Appendix B3 for more information.

3.3 Remove or reduce the hazards that may cause a fire

Having identified the fire hazards in Step 1, you now need to remove those hazards if reasonably practicable to do so. If you cannot remove the hazards, you need to take reasonable steps to reduce them if you can. This is an essential part of fire risk assessment and as a priority this must take place before any other actions.

Ensure that any actions you take to remove or reduce fire hazards or risk are not substituted by other hazards or risks. For example, if you replace a flammable substance with a toxic or corrosive one, you must consider whether this might cause harm to people in other ways.

Remove or reduce sources of ignition

There are various ways that you can reduce the risk caused by potential sources of ignition, for example:

- Wherever possible replace a potential source by a safer alternative.
- Replace naked flame and radiant heaters with fixed convector heaters or a central heating system. Restrict the movement of and guard portable heating appliances.
- Operate a safe smoking policy in designated smoking areas and prohibit smoking elsewhere, ensuring sufficient ashtrays are provided and cleaned appropriately.
- Ensure electrical, mechanical and gas equipment is installed, used, maintained and protected in accordance with the manufacturer's instructions.
- Ensure all electrical fuses and circuit breakers are of the correct rating and suitable for the purpose and that electrical sockets are not overloaded.
- Check all areas where hot work (e.g. welding) has been carried out to ensure that no ignition has taken place or any smouldering materials remain that may cause of fire.
- Ensure that no one carrying out work on gas fittings which involves exposing pipes that contain or have contained flammable gas uses any source of ignition such as blow-lamps or hot-air guns.
- Operate a permit to work system for contractors who carry out hot work.
- Ensure that no one uses any source of ignition while searching for an escape of gas.
- Take precautions to avoid arson.

Remove or reduce sources of fuel

There are various ways that you can reduce the risks caused by materials and substances which burn, for example:

- Reduce the amount of combustible materials, such as paper products and plastics. Keep spare items in storerooms or storage areas where the residents or visitors are not allowed to go.
- Ensure combustible items, such as furniture, laundry and decorations are stored properly and are separate from potential ignition sources, such as boilers.
- Reduce quantities of flammable liquids and gases in residents' areas to a minimum. Ensure spare supplies are kept to a minimum, and are stored properly in dedicated and locked storerooms or storage areas, preferably outside, where the residents and visitors are not allowed to go, and keep the minimum required for the operation of the home.

- Do not keep flammable solids, and flammable liquids and gases together.
- Make sure staff responsible for cleaning bedrooms are aware of potential fire hazards (e.g. storage, use and disposal of aerosols/newspapers) that may be brought into rooms by residents and visitors and left in a haphazard manner creating a fire risk. You should have a policy in place to deal with this constant hazard.
- Reduce or protect combustible displays, furnishings and foliage.
- Remove, cover or treat large areas of highly combustible wall and ceiling linings, e.g. polystyrene or carpet tiles, to reduce the rate of flame spread across the surface.

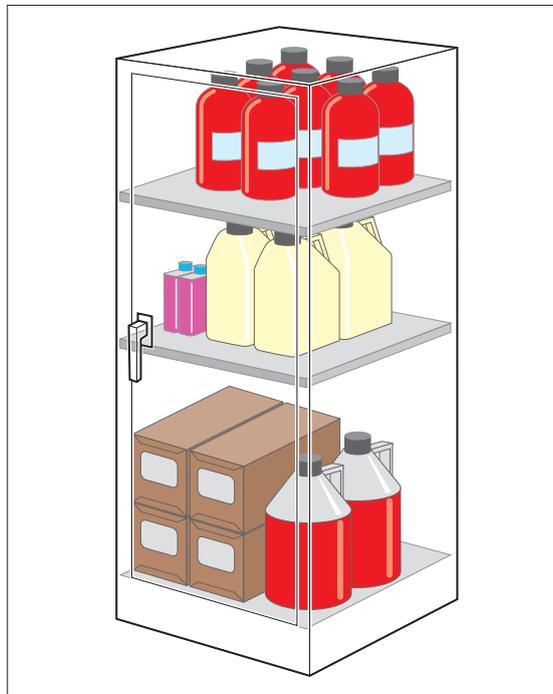


Figure 6: Storage of flammables

- Develop a formal system for the control of combustible waste by ensuring that waste materials and rubbish are not allowed to build up and are carefully stored until properly disposed of, particularly at the end of the day.
- Take action to avoid any parts of the premises and in particular storage areas being vulnerable to arson or vandalism.
- Check all areas where hot work (e.g. welding) has been carried out to ensure that no ignition has taken place and no smouldering or hot materials remain that may cause a fire later.

Further guidance on removing and reducing hazards is given in Part 2, Section 1.

Remove or reduce sources of oxygen

You can reduce the potential source of oxygen supplied to a fire by:

- Closing all doors, windows and other openings not required for ventilation or observation, particularly when staff levels are low.
- Shutting down ventilation systems which are not essential to the function of the premises.
- Not storing oxidising materials near or within any heat source or flammable materials.
- Controlling the use and storage of oxygen cylinders and/or piped oxygen, ensuring that they are not leaking, are not used to 'sweeten' the atmosphere, and that where they are located is adequately ventilated.
- Maintaining piped oxygen supplies in accordance with manufacturers' instructions.

3.4 Remove or reduce the risks to people

Having evaluated and addressed the risk of fire occurring and risk to people (preventive measures) it is unlikely that you will have concluded that no risk remains of fire starting and presenting a risk to people in your premises.

You now need to reduce the remaining fire risk to people to as low as reasonably practicable, by ensuring that adequate fire precautions are in place to warn people in the event of a fire and allow them to safely escape.

The rest of this step describes the fire protection measures you may wish to adopt to reduce the remaining fire risk to people (see Sections 3.4.1 to 3.4.6).

The level of fire protection you need to provide will depend on the level of risk that remains in the premises after you have removed or reduced the hazard and risks. Part 2, Section 4 on page 67 can help you decide the level of risk that you may still have.

Flexibility of fire protection measures

Flexibility will be required when applying this guidance; the level of fire protection should be proportional to the risk posed to the safety of the people in the premises. Therefore, the objective should be to reduce the remaining risk to a level as low as reasonably practicable. The higher the risk of fire and risk to life, the higher the standards of fire protection will need to be.

Your premises may not exactly fit the standards suggested in this guide and they may need to be applied in a flexible manner without compromising the lives of the occupants.

For example, if the travel distance is in excess of the norm for the level of risk you have determined (see Part 2, Table 2 on page 76), it may be necessary to do any one or a combination of the following to compensate:

- Provide earlier warning of fire using an enhanced automatic fire detection.
- Revise the layout to reduce travel distances.
- Reduce the fire risk by removing or reducing combustible materials and/or ignition sources.
- Control the number of people in the premises.
- Limit the area to trained staff only (no public or residents).
- Increase staff training and awareness.

Note: The above list is not exhaustive and is only used to illustrate some examples of trade-offs to provide safe premises.

If you decide to significantly vary away from the benchmarks in this guidance then you should seek expert advice before doing so.

3.4.1 Fire detection and warning systems

Virtually all premises that this guide applies to will need an electrical fire detection and warning system incorporating automatic fire detectors, sounders and manually operated call point (break-glass boxes).

In premises of limited size/occupation, e.g. ground and first floor with a small number of residents (up to four), a system of interconnected smoke alarms or point detectors incorporating interconnected manual call points and, where necessary separate sounders, may be acceptable.

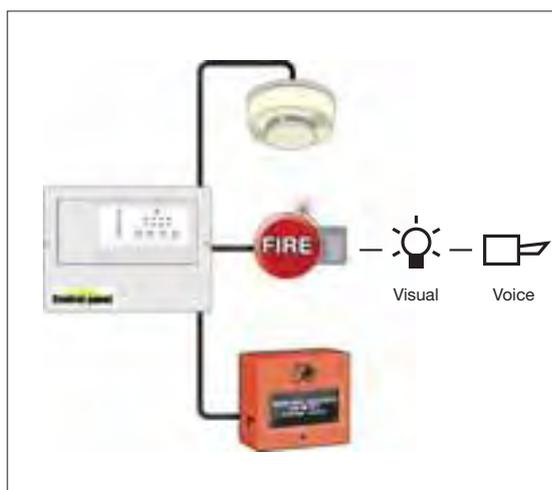


Figure 7: Fire detection and warning system

In larger premises with more residents, you will probably need an automatic fire detection and warning system with a control panel which is able to identify either zone or the specific location where the alarm has been raised.

In more complex premises, particularly those that accommodate a large number of residents over a number of floors, it is possible that a more sophisticated form of evacuation, e.g. phased evacuation, will be used. In these cases it will be necessary for the fire detection and warning systems to automatically trigger the action that people need to take (in accordance with the pre-determined fire procedure) e.g. by a two stage audible warning or voice alarm system.

You need to consider how residents, in particular non-ambulant residents, would or should respond to an alarm. Residents who require carer assistance to make their escape can do little except wait for rescue and the sound of the alarm could be distressing. The sound-level provided for residents then becomes of less significance. Communication procedures should be in place so that residents, who can hear the alarm but not respond, are notified as quickly as possible about what is happening.

It is of critical importance that staff know how to respond to an alarm and have well-rehearsed procedures in place.

Although the main risk will be to people when they are asleep you may still need to consider special arrangements for times when people are working alone, or are disabled or when your normal occupancy patterns are different, e.g. maintenance staff or other contractors working in the building.

False alarms from electrical fire detection and warning systems are a major problem (e.g. false activation of a detector due to poor system design) and result in many unwanted calls to the fire and rescue service every year. To help reduce the number of false alarms, the design and location of activation devices should be reviewed against the way the premises are currently used.

Further guidance on fire detection and warning systems is given in Part 2, Section 2.

Checklist



- Can the existing means of detection ensure a fire is discovered quickly enough for the alarm to be raised in time for all the occupants to escape to a place of safety?
- Are the detectors of the right type and in the appropriate locations?
- Can the means of warning be clearly heard and understood by everyone throughout the whole building when initiated from a single point? Are there provisions for people in locations where the alarm cannot be heard?
- If the fire detection and warning system is electrically powered, does it have a back-up power supply?

3.4.2 Firefighting equipment and facilities

Firefighting equipment can reduce the risk of a small fire, e.g. a fire in a waste paper bin, developing into a large one. The safe use of an appropriate fire extinguisher to control a fire in its early stages can also significantly reduce the risk to other people in the premises by allowing people to assist others who are at risk.

This equipment will need to comprise sufficient portable extinguishers that must be suitable for the risk.

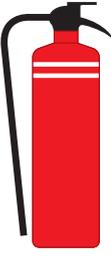
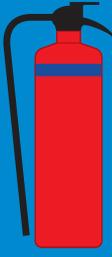
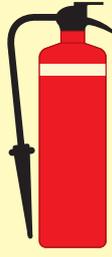
Main types of portable extinguishers, their uses and colour coding.			
<p>WATER For wood, paper, textile and solid material fires</p> 	<p>POWDER For liquid and electrical fires</p> 	<p>FOAM For use on liquid fires</p> 	<p>CARBON DIOXIDE (CO₂) For liquid and electrical fires</p> 
<p>DO NOT USE on liquid, electrical or metal fires</p>	<p>DO NOT USE on metal fires</p>	<p>DO NOT USE on electrical or metal fires</p>	<p>DO NOT USE on metal fires</p>
<p>The contents of an extinguisher is indicated by a zone of colour on the red body. Halon extinguishers are not shown since no new Halon production is permitted in the UK</p>			

Figure 8: Types of fire extinguishers

In small premises, having one or two portable extinguishers of the appropriate type, readily available for use, may be all that is necessary. In larger, more complex premises, more portable extinguishers may be required and they should be sited in suitable locations such as on the escape routes at each floor level. It may also be necessary to indicate the location of extinguishers by suitable signs.

Some premises will also have permanently installed firefighting equipment such as hose reels, for use by trained staff or firefighters.

People with no training should not be expected to attempt to extinguish a fire. However, all staff should be familiar with the location and basic operating procedures for the equipment provided, in case they need to use it. If your fire strategy means that certain people, e.g. fire marshals, will be expected to take a more active role, then they should be provided with more comprehensive training.

In residential care homes the emphasis must be towards the safety of residents rather than fighting the fire; extinguishers should primarily be used to protect life and facilitate safe escape. They should otherwise only be used if they can be used safely and without risk of trapping the user.

Other fixed installations and facilities to assist firefighters, such as dry rising mains and access for fire engines, or automatically operated, fixed fire suppression systems such as sprinklers, may also have been provided.

Where these have been required by law, e.g. the Building Regulations or local Acts, such equipment and facilities must be maintained.

Similarly, if provided for other reasons, e.g. insurance, it is good practice to ensure that they are properly maintained.

In most cases it will be necessary to consult a competent service engineer. Keeping records of the maintenance carried out will help you demonstrate to the enforcing authority that you have complied with fire safety law.

Appendix A.1 provides a sample fire safety maintenance checklist you can use.

For more guidance on portable fire extinguishers, see Part 2, Section 3.1, for fixed firefighting installations, Part 2, Section 3.2 and other facilities (including those for firefighters), Part 2, Section 3.3.

Checklist



- Are the portable fire extinguishers or any fixed firefighting equipment provided suitable for controlling the risks identified?
- Are there enough extinguishers sited throughout the premises at appropriate locations?
- Are the right types of extinguishers located close to the fire hazards and can users get to them without exposing themselves to risk?
- Are the extinguishers visible or does their position need indicating?
- Have you taken steps to prevent the misuse of extinguishers?
- Do you regularly check equipment provided to help maintain the escape routes?
- Do you carry out daily checks to ensure that there is clear access for fire engines?
- Are those who test and maintain the equipment competent to do so?
- Do you have the necessary procedures in place to maintain any facilities that have been provided for the safety of people in the building (or for the use of firefighters, such as access for fire engines and firefighting lifts)?

3.4.3 Escape routes

Once a fire has started, been detected and a warning given, everyone in your premises should be able to escape to a place of total safety, either unaided or with assistance, but without the help of the fire and rescue service. However, some people with disabilities may need help from staff who will need to be designated for the purpose.

Escape routes should be designed to ensure, as far as possible, that any person confronted by fire anywhere in the building should be able to turn away from it and escape (or be taken) to a place of reasonable safety, e.g. a protected area or stairway. From there they will be able to go (or be taken) directly to a place of total safety away from the building.

Those who require special assistance (e.g. very young children, the elderly and infirm or people with disabilities) could be accommodated on the same level as the final exit from the premises to facilitate escape. Where they need assistance to evacuate, you should make sure that there are sufficient staff to ensure a speedy evacuation.

The level of fire protection that should be given to escape routes will vary depending on the level of risk of fire within the premises and other related factors. Generally, premises that are small, consisting of a single storey, will require fairly simple measures to protect the escape routes, but large or multi-storey buildings should have a more complex and inter-related system of fire precautions.

In all cases, escape routes should be designed to ensure, as far as possible, that any person confronted by fire anywhere in the building, should be able to turn away from it and escape (or be evacuated) to a place of reasonable safety, e.g. a protected area, corridor or stairway. From there, further escape should be possible either to another protected area or direct to a final exit.

When determining whether your premises have adequate escape routes, you need to consider a number of factors, including:

- the type, number and dependency of people using the premises;
- assisted means of escape;
- the evacuation strategy;
- escape time and travel distance;
- the age and construction of the premises;
- the number of escape routes and exits;
- the management of escape routes; and
- emergency evacuation of persons with mobility impairment.

The type, number and dependency of people using the premises

The people present in your premises will primarily be a mixture of staff, residents and visitors.

Staff can reasonably be expected to have an understanding of the layout of the premises, while visitors, particularly in larger premises, will be unlikely to have knowledge of alternative escape routes. Residents will probably know part of the premises and be familiar with some escape routes.

The number and dependency of people present will influence your assessment of the escape routes. You must ensure that your existing escape routes are sufficient and capable of safely evacuating all the people likely to use your premises at any time and particularly during times of high usage or at peak periods. If necessary you may need either to increase the capacity of the escape routes or restrict the number of people in the premises or consider other fire safety measures.

How quickly people can evacuate will depend on their level of reliance on staff, and it will therefore be helpful to consider the various dependencies:

- **Independent:** the mobility of residents is not impaired in any way and they are able to physically leave the premises without the assistance of staff or, if they experience some mobility impairment, they are able to leave with minimal assistance from another person.

- **Dependent:** all residents except those defined as independent or very high dependency. This category also includes those with mental health problems regardless of their independent mobility.
- **Very high dependency:** those residents whose care and / or condition creates a high dependency on staff and where immediate evacuation would prove potentially life threatening.

Assisted means of escape

People being cared for in residential care premises will vary considerably in terms of mobility and levels of awareness during a fire situation. There may be residents who exhibit severe mobility restriction, but will have a good awareness of the situation, being able to co-operate with staff. Others may exhibit normal mobility, but their level of awareness may be such that they present unpredictable behaviour, which may impede staff in an emergency. Children and residents with some forms of mental illness may become distressed by the alarm and the sudden activity.

The majority of care homes will provide care for individuals whose characteristics lie somewhere in between these examples. In almost all such cases, the evacuation of residents will rely entirely on the action of staff, moving them from the vicinity of the fire to an adjacent area of reasonable safety. Consequently it is essential that all staff, including agency and temporary staff, are fully trained in evacuation procedures for the premises.

The numbers of residents that may need to be moved in the event of a fire should be designed to be as few as possible. This may be achieved by establishing a number of protected areas within the premises. Restricting the number of residents (e.g. beds) within each protected area will be of benefit in an evacuation in terms of fewer residents requiring to be moved away from the fire.

You should ensure that staffing levels are sufficient and available at all material times to facilitate the movement of these numbers of residents to safety within the determined safe evacuation time (see below). Residents with severe difficulties for evacuation may be better situated at lower levels to aid the evacuation process.

Some residents in care homes may be confined to bed and subject to a range of procedures e.g. they may be catheterised, they may be receiving oxygen therapy, or they may be in receipt of automatic dosed medication. In such circumstances the attachment to medical equipment means that rapid evacuation may not be achieved within the required timescales. In such circumstances their bedroom is likely to be the most appropriate place of safety as part of delayed evacuation strategy (see below).

It is essential that your risk assessment is dynamic and takes full account of all difficulties that staff may encounter in moving people in an emergency. The problems that some residents may pose in an evacuation can change over short periods of time. Therefore it is important that staff play a part in the development of the emergency procedures. They will have a valuable contribution to make in terms of being aware of these changes, and be able to suggest any practical improvements to the evacuation procedure.

Evacuation strategy

In residential care premises, typical evacuation strategies are likely to involve one or more of the following arrangements:

- Single stage evacuation
- Progressive horizontal evacuation
- Delayed evacuation

Single stage evacuation

This strategy is appropriate for residents and others who fall predominantly into the 'independent' category, where it may reasonably be expected that all people in the building are able to (and will) evacuate immediately from the premises to a place of total safety without assistance.

Progressive horizontal evacuation

This strategy is likely to be necessary where the residents are dependent on staff to assist with their escape. It works on the principle of moving residents from an area affected by fire, through a fire resisting barrier to an adjoining fire protected area on the same level, where they can wait in a place of safety whilst the fire is dealt with, or await further evacuation down a protected route to total safety.

Delayed evacuation

Exceptionally, in some situations it may not be desirable or practical to evacuate some residents immediately (e.g. because of medical conditions or treatments). In these circumstances it may be appropriate to allow them to remain in their rooms whilst the fire is dealt with and the danger has passed, or to allow for the additional time necessary to prepare them for evacuation. In such circumstances, it will be necessary to provide enhanced levels of structural fire protection to the individual bedroom. However, where this strategy has been adopted, a suitable evacuation plan will still be required.

You should not depend upon the fire and rescue service to evacuate people; your escape strategy must be dependant only on the factors that are within your own control. However, you should consult with your enforcing authority when determining and planning an appropriate and effective evacuation strategy for your premises. Whichever system of evacuation you use must be supported by suitable management arrangements.

See Part 2 Section 4.1 for more information on evacuation strategies.

Escape time and travel distance

In the event of a fire, it is important to evacuate people as quickly as possible from the area or the building. Escape routes in a building should be designed so that people can escape quickly enough to ensure they are not placed in any danger from fire. The time available for escape will depend on a number of factors, including, how quickly the fire is detected and the alarm raised, the number of available escape routes, the volume and height of the space, the ventilation conditions, the speed of

fire growth, the mobility of the residents and the availability of staff. For simplicity, travel distances in Part 2, Table 2 on page 76 take these factors into account.

At the design stage of a building, the length of escape routes is kept within certain guidelines so that in the event of a fire, the occupants of the premises can escape in the shortest time reasonably practicable.

The amount of escape time available will be closely linked to how quickly the staff and residents are made aware of a fire within the premises, combined with the distances to be travelled.

For single stage evacuation strategies, where it would be expected that all the occupants would evacuate immediately, either to a place of reasonable safety within the building e.g a protected stairway, or to a place of total safety outside the building, it is the time required to reach these points which is measured. However, where progressive horizontal evacuation is adopted, the escape time is related to how long it takes to move residents from the area involved in fire, to a place of reasonable safety in the adjoining protected area on the same level.

The time required to evacuate residents will be influenced by a number of factors, including:

- The degree of mobility of each resident to be moved;
- The level of awareness of each resident, and the level of co-operation that may be expected;
- The distance to be travelled to the adjoining protected area;
- The number of staff members available to move residents;
- The level of training given to staff in moving residents quickly in an emergency; and
- The need to disconnect any medical devices and to prepare residents for further evacuation.

The ideal way to determine the actual time required would be to conduct a timed simulation involving the actual movement of all of the residents. This would identify many simple problems that can be rectified before any emergency evacuation might be necessary. However, as this is not always practical, other methods may need to be developed for calculating escape time.

The age and construction of the premises

Older buildings may comprise different construction materials from newer buildings and may be in a poorer state of repair. The materials from which your premises are constructed and the quality of building work and state or repair could contribute to the speed with which any fire may spread, and potentially affect the escape routes the occupants will need to use. A fire starting in a building constructed mainly from combustible material will spread faster than one where fire-resisting construction materials have been used.

If you wish to construct internal partitions or walls in your premises, perhaps to divide up a recreation area or bedroom, you should ensure that any new partition or wall does not obstruct any escape routes or fire exits, extend travel distances or

reduce the sound levels of the fire alarm system. Any walls that affect the means of escape should be constructed of appropriate material. Further technical information is provided in Appendix B.

Depending on the findings of your fire risk assessment, it may be necessary to protect the escape routes against fire and smoke by upgrading the construction of the floors, ceiling linings and walls to be fire-resisting. You should avoid having combustible wall and ceiling linings in your escape routes. For further guidance see Appendix B. You may need to seek advice from a competent person. Any structural alterations may require building regulation approval.

If your premises have been purpose built for the provision of residential care, and has been the subject of registration for this use in the past, it is likely that the level of structural protection present will be adequate. However, the number and size of protected areas that are available to staff for evacuation purposes may need to be reviewed if circumstances within the premises change significantly. An example may be an increase in the dependency of residents being cared for within the premises overall, e.g. a retirement home catering for the needs of fully ambulant residents in the past being used to accommodate largely non-ambulant residents.

If you have existing premises that are being used for residential care purposes for the first time, it is likely that upgrading of some structure will be required to support a policy of horizontal evacuation. For example, all floors should ideally have 60 minutes fire resistance, and a minimum of 30 minutes.

It is important that the correct balance is provided between adequate protection from fire, and maintaining a comfortable non-institutionalised environment.

The number of escape routes and exits

In general there should normally be at least two escape routes from all parts of the premises but a single escape route may be acceptable in some circumstances (e.g. part of your premises accommodating less than 60 people or where the travel distances are limited).

Where two escape routes are necessary and to further minimise the risk of people becoming trapped, you should ensure that the escape routes are completely independent of each other. This will prevent a fire affecting more than one escape route at the same time.

When evaluating escape routes, you may need to build in a safety factor by discounting the largest exit from your escape plan, then determine whether the remaining escape routes from a room, floor or building will be sufficient to evacuate all the occupants within a reasonable time. Escape routes that provide a single direction only may need additional fire precautions to be regarded as adequate.

Exit doors on escape routes and final exit doors should normally open in the direction of travel, and be quickly and easily openable without the need for a key. For premises where security is a major factor, (e.g. where elderly people may wander out of a building or children may get out of homes), you may have some

form of security latches on final exit doors. In such cases you need to ensure that procedures are in place to ensure that all such doors are always available in an emergency, staff are properly trained and the procedures are included in your emergency plan.

Checks should be made to ensure final exits are wide enough to accommodate the number of people and/or wheelchair or evacuation chair users who may use the escape routes they serve.

Management of escape routes

It is essential that escape routes, and the means provided to ensure they are used safely, are managed and maintained to ensure that they remain usable and available at all times when the premises are occupied. Inform staff in training sessions about the escape routes within the premises.

Corridors and stairways that form part of escape routes should be kept clear and hazard free at all times. Items that may be a source of fuel or pose an ignition risk should never be located on any corridor or stairway that will be used as an escape route. Have you made arrangements to ensure that all the escape routes within the building are properly maintained and available for use when required? See also Part 2, Section 4.



*Figure 9:
A blocked corridor
with incorrect signage*

Emergency evacuation of persons with mobility impairment

The means of escape you provide must be suitable for the evacuation of everyone likely to be in your premises. This may require additional planning and allocation of staff roles – with appropriate training. Provisions for the emergency evacuation of disabled persons may include:

- stairways;
- evacuation lifts;
- firefighting lifts;
- horizontal evacuation;
- refuges; and
- ramps.

Use of these facilities will need to be linked to effective management arrangements as part of your emergency plan. The plan should not rely on fire and rescue service involvement for it to be effective.

Further guidance on escape routes is given in Part 2, Section 4.



Checklist

- Is your building constructed, particularly in the case of multi-storey buildings, so that, if there is a fire, heat and smoke will not spread uncontrolled through the building to the extent that people are unable to use the escape routes?
- Are any holes or gaps in walls, ceilings and floors properly sealed, e.g. where services such as ventilation ducts and electrical cables pass through them?
- Are there an adequate number of protected areas?
- Can all the occupants escape to a place of total safety in a reasonable time?
- Are the existing escape routes adequate for the numbers and type of people that may need to use them, e.g. residents and visitors, including disabled people?
- Are the exits in the right place and do the escape routes lead as directly as possible to a place of total safety?
- If there is a fire, could all available exits be affected or will at least one route from any part of the premises remain available?
- Are the escape routes and final exits kept clear at all times?
- Do the doors on escape routes open in the direction of escape?
- Can all final exit doors be opened easily and immediately if there is an emergency?
- Will everybody be able to safely use the escape routes from your premises?
- Are your staff (and residents) aware of the importance of maintaining the safety of the escape routes, e.g. by ensuring that fire doors are not wedged open and that combustible materials are not stored within escape routes?
- Are there any particular or unusual issues to consider?

3.4.4 Emergency escape lighting

People in your premises must be able to find their way to a place of safety if there is a fire by using escape routes that have enough lighting.

In premises of limited size/occupation, e.g. ground and first floor, with a small number of residents (up to four) who do not rely upon staff for assistance with evacuation, and where the escape routes are simple and straightforward, borrowed lighting from a dependable source, e.g. from streetlamps where they illuminate the escape routes, may be acceptable.

In most care homes particularly those that are larger and more complex with more residents, a more comprehensive system of automatic emergency escape lighting should be in place to illuminate all the escape routes.

Where people have difficulty seeing conventional signs, a 'way-guidance' system may need to be considered.

Further guidance on emergency escape lighting is given in Part 2, Section 5.

Checklist



- Are all your escape routes covered by an acceptable form of emergency escape lighting?
- Will there always be sufficient lighting to safely use escape routes?
- Do you have back-up power supplies for your emergency escape lighting?

3.4.5 Signs and notices

Signs

In care premises it is important to avoid an ‘institutional’ environment. However, signs must be used, where necessary, to help people identify escape routes, find firefighting equipment and emergency fire telephones. These signs are required under the Health and Safety (Safety Signs and Signals) Regulations 1996^{5,6} and must comply with the provisions of those Regulations.

Other than in the smallest and simplest of premises where the exits are in regular use and familiar to staff, residents and visitors, a fire risk assessment that determines that no escape signs are required (because, for example, trained staff will always be available to help residents and visitors to escape routes), is unlikely to be acceptable to an enforcing authority.

For a sign to comply with these Regulations it must be in pictogram form (see Figure 10). The pictogram can be supplemented by text if this is considered necessary to make the sign more easily understood, but you must not have a safety sign that uses only text.

Where the locations of escape routes and firefighting equipment are readily apparent and the firefighting equipment is visible at all times, then signs are not necessary. In all other situations it is likely that the fire risk assessment will indicate that signs will be necessary.



Figure 10: Typical fire exit sign

Notices

Notices must be used, where necessary, to provide the following:

- instructions on how to use any fire safety equipment;
- the actions to be taken in the event of fire; and
- help for the fire and rescue service (e.g. location of sprinkler valves or electrical cut-off switches).

All signs and notices should be positioned so that they can be easily seen and understood. This may require essential signs to be duplicated at two levels (i.e. for ambulant and wheelchair residents).

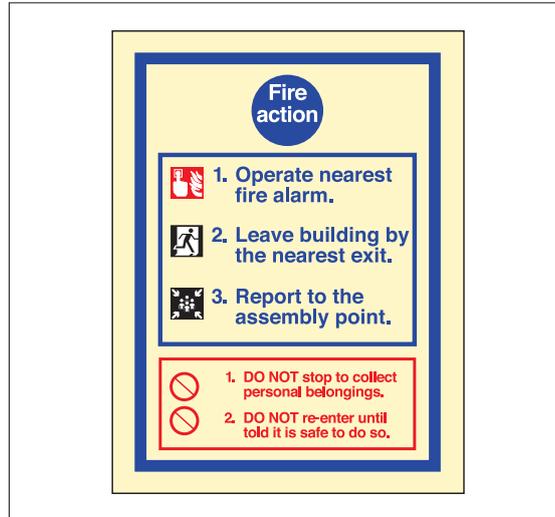


Figure 11: Simple fire action notice

Further guidance on signs and notices is given in Part 2, Section 6.

Checklist



- Where necessary, are escape routes and exits, the locations of firefighting equipment, emergency telephones and other means of raising the alarm indicated by appropriate signs?
- Have you provided notices such as those giving information on how to operate security devices on exit doors, those indicating doors enclosing fire hazards that must be kept shut and fire action notices for staff and other people?
- Are you maintaining all the necessary signs and notices so that they continue to be correct, legible and understood?
- Are you maintaining signs that you have provided for the information of the fire and rescue service, such as those indicating the location of water suppression stop valves and the storage of hazardous substances?

3.4.6 Installation, testing and maintenance

New fire precautions should be installed by a competent person.

You must keep any existing equipment, devices or facilities that are provided in your premises for the safety of people, such as fire alarms, fire extinguishers, lighting, signs, fire exits and fire doors, in effective working order and maintain separating elements designed to and prevent fire and smoke entering escape routes.

You must ensure regular checks, periodic servicing and maintenance are carried out whatever the size of your premises and any defects are put right as quickly as possible.

You, or a person you have nominated, can carry out certain checks and routine maintenance work. Maintenance may need to be carried out by a competent service engineer.

Where contractors are used, third party certification is one method where a reasonable assurance of quality of work and competence can be achieved (see Part 2, Section 8).

The following are examples of checks and tests that should be carried out. The examples of testing and maintenance given are not intended to be prescriptive and other testing regimes may be appropriate.

Daily checks

Ensure that any security devices on fire exits do not impede escape (see Appendix B3 for more details), ensure that doors on escape routes swing freely and close fully and check exits and escape routes to ensure they are clear from obstructions and combustible materials and in a good state of repair. Check the fire alarm panel to ensure the system is active and fully operational. Where practicable, visually check that emergency lighting units are in good repair and apparently working. Check that all safety signs and notices are legible. Establish a routine for closing all compartmentation corridor fire doors at night within a pre-determined programme.

Weekly tests and checks

Test fire detection and warning systems and manually operated warning devices weekly following the manufacturer's or installer's instructions. Check that fire extinguishers and hose reels are correctly located and in apparent working order.

Monthly tests and checks

Test all emergency lighting systems to make sure they have enough charge and illumination according to the manufacturer's or supplier's instructions. This should be at an appropriate time when, following the test, they will not be immediately required.

Check that all fire doors in good working order and closing correctly and that the frames and seals are intact.

Six-monthly tests and checks

A competent person should test and maintain the emergency lighting and fire detection and warning system.

Annual tests and checks

All firefighting equipment, fire alarms and other installed systems should be tested and maintained by a competent person.

All structural fire protection and elements of fire compartmentation should be inspected and any remedial action carried out. Specific guidance on the maintenance of timber fire-resisting doors is given in Appendix B2.

Appendix A.1 provides an example of a fire safety maintenance checklist. You may find it useful to keep a log book of all maintenance and testing.

Further guidance on maintenance and testing on individual types of equipment and facilities can be found in the relevant section in Part 2.

Checklist



- Do you regularly check all fire doors and escape routes and associated lighting and signs?
- Do you regularly check all your firefighting equipment?
- Do you regularly check your fire detection and alarm equipment?
- Are those who test and maintain the equipment competent to do so?
- Do you keep a log book to record tests and maintenance?

Step 3 Checklist



Evaluate, remove, reduce and protect from risks by:

- Evaluating the risk to people in your building if a fire starts.
 - Removing or reducing the hazards that might cause a fire.
- Have you:
- Removed or reduced sources of ignition?
 - Removed or reduced sources of fuel?
 - Removed or reduced sources of air or oxygen?
- Have you removed or reduced the risks to people if a fire occurs by:
- Considering the need for fire detection and for warning?
 - Considering the need for firefighting equipment?
 - Determining whether your escape routes are adequate?
 - Determining whether your lighting and emergency lighting are adequate?
 - Checking that you have adequate signs and notices?
 - Regularly testing and maintaining safety equipment?
 - Considering whether you need any other equipment or facilities?

STEP 4 RECORD, PLAN, INFORM, INSTRUCT AND TRAIN

In Step 4 there are four further elements of the risk assessment you should focus on to address the management of fire safety in your premises. In smaller premises this could be done as part of the day-to-day management, however, as the premises or the organisation get larger it may be necessary for a formal structure and written policy to be developed. Further guidance on managing fire safety is given in Part 2, on page 45.

4.1 Record the significant findings and action taken

If you or your organisation employs five or more people, your premises are licensed, or an alterations notice requiring you to do so is in force, you must record the significant findings of your fire risk assessment and the actions you have taken.

Significant findings should include details of:

- The fire hazards you have identified (you don't need to include trivial things like a tin of solvent based glue).
- The actions you have taken or will take to remove or reduce the chance of a fire occurring (preventive measures).
- Persons who may be at risk, particularly those especially at risk.
- The actions you have taken or will take to reduce the risk to people from the spread of fire and smoke (protective measures).
- The actions people need to take in case of fire including details of any persons nominated to carry out a particular function (your emergency plan).
- The information, instruction and training you have identified that people need and how it will be given.

You may also wish to record discussions you have had with staff or staff representatives (including trade unions).

Even where you are not required to record the significant findings, it is good practice to do so.

In some simple premises providing residential care, record keeping may be no more than a few sheets of paper (possibly forming part of a health and safety folder), containing details of significant findings, any action taken, or proposed to be taken, and a copy of the emergency plan.

The record could take the form of a simple list which may be supported by a simple plan of the premises. (See Figure 12.)

In more complex premises it is best to keep a dedicated record including details of significant findings, any action taken, a copy of the emergency plan and maintenance of fire protection equipment and training. There is no one specified format for this. Further guidance is given in Part 2, Section 7.1.

You must be able to satisfy the enforcing authority, if called upon to do so, that you have carried out a suitable and sufficient fire risk assessment. Keeping records will help you do this and will also form the basis of your subsequent reviews. If you keep records, you do not need to record all the details, only those that are significant and the action you have taken.

It might be helpful to include a simple line drawing. This can also help you check your fire precautions as part of your ongoing review.

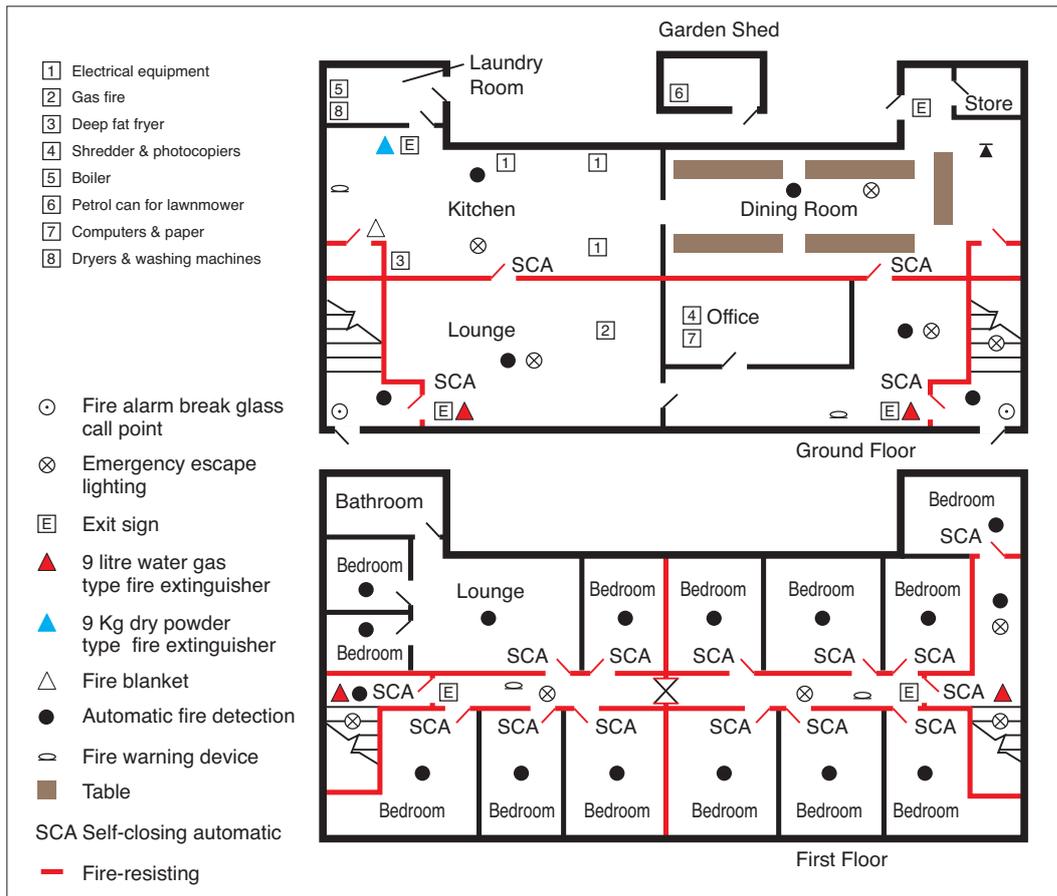


Figure 12: Example of a line drawing showing general fire safety precautions

The findings of your fire risk assessment will help you to develop your emergency plan, the instruction, information and training you need to provide, the co-operation and co-ordination arrangements you may need to have with other responsible people and the arrangements for maintenance and testing of the fire precautions. If you are required to record the significant findings of your fire risk assessment then these arrangements must also be recorded.

Records should also be kept of all alterations, tests, repairs and maintenance of fire safety systems, including passive systems such as fire doors, all ‘near miss’ events should be documented, and ‘lessons learned’.

Further guidance about fire safety records with an example is given in Part 2, Section 7.1.



Checklist

- Have you recorded the significant findings of your assessment?
- Have you recorded what you have done to remove or reduce the risk?
- Are your records available for inspection by the enforcing authority?

4.2 Emergency plans

You need to have an emergency plan for dealing with any fire situation. The purpose of an emergency plan is to ensure that all the people in your premises know what to do if there is a fire and that the premises can be safely evacuated.

If you or your organisation employ five or more people, or your premises are licensed or an alterations notice requiring it is in force, then details of your emergency plan must be recorded. Even if it is not required, it is good practice to keep a record.

Your emergency plan should be based on the outcome of your fire risk assessment and be available for your employees, their representatives (where appointed), residents (if they request it) and the enforcing authority.

In small premises providing residential care the emergency plan may be no more than a fire action notice.

In most premises providing residential care, the emergency plan will need to be more detailed.

Further guidance on emergency plans is given in Part 2, Section 7.2.



Checklist

- Do you have an emergency plan and, where necessary, have you recorded the details?
- Does your plan take account of other emergency plans applicable to the same building?
- Is the plan readily available for staff to read?
- Is the emergency plan available to the enforcing authority?

4.3 Inform, instruct, co-operate and co-ordinate

You must give clear and relevant information and appropriate instructions to your staff and the employers of other people working in your premises, such as contractors, about how to prevent fires and what they should do if there is a fire. In some care homes you may also want to give information to residents and regular visitors.

If you intend to employ a child, you must inform the parents of the significant risks you have identified and the precautions you have taken. You must also co-operate and co-ordinate with other responsible people who use or are connected to any part of the premises. It is unlikely that your emergency plan will work without this.

Information and instruction

All staff should be given information and instruction as soon as possible after they are appointed and regularly after that. Make sure you include staff who work outside normal working hours, such as contract cleaners or maintenance staff.

All other relevant persons should be given information about the fire safety arrangement as soon as possible, e.g. residents when they take up residency. Information should be provided for the public (visitors) e.g. fire action notices.

The information and instructions you give must be in a form that can be used and understood. They should take account of those with disabilities such as hearing or sight impairment, those with learning difficulties and those who do not use English as their first language.

The information and instruction you give should be based on your emergency plan and must include:

- the significant findings from your fire risk assessment;
- the measures that you have put in place to reduce the risk;
- what staff should do if there is a fire;
- the identity of people you have nominated with responsibilities for fire safety;
- the importance of (closed) doors; and
- any special arrangements for serious and imminent danger to persons from fire.

In most care homes, written instructions should be provided to your staff who have been nominated to carry out a designated safety task, such as calling the fire and rescue service or checking that exit doors are available for use at the start of each shift.

This should include showing staff the fire-protection arrangements, including the designated escape routes, the location and operation of the fire-warning system and any other fire-safety equipment provided, such as fire extinguishers, and how to care for and evacuate residents. Fire action notices can complement this information and where used, should be posted in prominent locations.

Further guidance on information and instruction to staff, and on working with dangerous substances is given in Part 2, Section 7.3.

Co-operation and co-ordination

In some premises (e.g. owner-occupied premises) you may be solely responsible. However, in buildings owned by someone else, or where there is more than one occupier, and others are responsible for different parts of the complex, it is important that you liaise with them and inform them of any significant risks that you have identified. By liaising you can co-ordinate your resources to ensure that your actions and working practices do not place others at risk if there is a fire, and a co-ordinated emergency plan operates effectively.

Employees also have a responsibility to co-operate with their employer so far as it is necessary to help the employer comply with any legal duty.

Further guidance on co-operation and co-ordination is given in Part 2, Section 7.3.

Checklist



- Have you told your staff about the emergency plan, including the identity of people you have nominated to do a particular task?
- Have you told residents about the emergency plan?
- Have you given staff information about any dangerous substances?
- Do you have arrangements for informing temporary or agency staff?
- Do you have arrangements for informing other employers whose staff are guest workers in your premises, such as maintenance contractors and cleaners?
- Have you co-ordinated your fire safety arrangements with other responsible people and with any contractors in the complex?
- Have you recorded details of any information or instructions you have given and the details of any arrangements for co-operation and co-ordination with others?

4.4 Fire safety training

You must provide adequate fire safety training for your staff. The type of training should be based on the particular features of your premises including any ancillary accommodation and should:

- take account of the findings of the fire risk assessment;
- explain your emergency procedures;
- take account of the work activity and explain the duties and responsibilities of staff;
- take place during their individual working hours and be repeated periodically where appropriate;
- be easily understandable by your staff and other people who may be present;
- be provided to new, agency and temporary staff prior to starting their duties;
- address the roles of staff and others (guests, residents); and
- be tested by fire drills.

In simple premises this may be no more than showing new staff the fire exits and giving basic training on what to do if there is a fire. In larger premises, with a high staff turnover and many shift patterns, the organisation of fire safety training will need to be planned.

Your training should include the following:

- the importance of keeping fire-doors closed (or closing them) to prevent the spread of fire, heat and smoke;
- what to do on discovering a fire;
- how to raise the alarm and what happens then;
- what to do upon hearing the fire alarm;
- when to adopt, and the procedures for, a 'delayed evacuation' response;
- the procedures for alerting other staff, residents and visitors including, where appropriate, directing them to exits;
- the arrangements for calling the fire and rescue service;
- the identification and use of protected areas for horizontal evacuation;
- the evacuation procedures for everyone in your premises to reach an assembly point at a place of total safety, in particular the role of residents;
- the evacuation procedures for residents who require assisted escape, to reach an assembly point at a safe place;
- the location and, when appropriate, the use of firefighting equipment;
- the location of escape routes, especially those not in regular use;
- how to open all emergency exit doors;
- where appropriate, how to stop machines, appliances and processes and isolate power supplies in the event of a fire;
- the reason for not using lifts (except those specifically installed or nominated, following a suitable fire risk assessment, for the evacuation of people with a disability);
- the safe use of and risks from storing or working with highly flammable and explosive substances and bottled or piped oxygen;
- the importance of general fire safety, which includes good housekeeping; and
- fire drills, with and without residents' involvement.

All the staff identified in your emergency plan that have a supervisory role if there is a fire (e.g. heads of department, fire marshals or wardens and, in larger premises providing residential care, fire parties or teams), should be given details of your fire risk assessment and receive additional training, and be aware of the importance of staff roles and staffing ratios.

Further guidance on fire safety training and examples of how to carry out a fire drill is given in Part 2, Section 7.4.



Checklist

- Have your staff received any fire safety training?
- Have you carried out a fire drill recently?
- Are staff aware of specific tasks if there is a fire?
- Are residents aware of specific actions if there is a fire?
- Are you maintaining a record of training sessions?
- If you use or store hazardous substances have your staff received appropriate training?

STEP 5 REVIEW

You should constantly monitor what you are doing to implement the fire risk assessment, to assess how effectively the risk is being controlled.

If you have any reason to suspect that your fire risk assessment is no longer valid or there has been a significant change in your premises that has affected your fire precautions, you will need to review your assessment and if necessary revise it.

Reasons for review could include:

- changes to work activities or the way that you organise them, including the introduction of new equipment;
- alterations to the building, including the internal layout;
- substantial changes to furniture and fixings;
- the introduction, change of use or increase in the storage of hazardous substances;
- the failure of fire precautions, e.g. fire-detection and alarm systems, life safety sprinklers or ventilation systems;
- significant problems reported by staff or residents;
- a significant increase in the number of people present;
- the presence of people with some different or specific form of disability; and
- changes in staff ratios.

You should consider the potential risk of any significant change before it is introduced. It is usually more effective to minimise a risk by, for example, ensuring adequate, appropriate storage space for an item before introducing it to your premises.

Do not amend your assessment for every trivial change, but if a change introduces new hazards you should consider them and, if significant, do whatever you need to do to keep the risks under control. In any case you should keep your assessment under review to make sure that the precautions are still working effectively. You may want to re-examine the fire prevention and protection measures at the same time as your health and safety assessment.

If a fire or 'near miss' occurs, this could indicate that your existing assessment may be inadequate and you should carry out a re-assessment. It is good practice to identify the cause of any incident and then review and, if necessary, revise your fire risk assessment in the light of this.

Records of testing, maintenance and training etc. are useful aids in a review process. See Appendix A.1 for an example.

Alterations notices

If you have been served with an 'alterations notice' check it to see whether you need to notify the enforcing authority about any changes you propose to make as a result of your review. If these changes include building work, you should also consult a building control body.

END OF PART 1

You should now have completed the five-step fire risk assessment process, using the additional information in Part 2 where necessary. In any review you may need to revisit Steps 1 to 4.