



FIRE SAFETY HANDBOOK
INFORMATION FOR EMPLOYEES

INTRODUCTION

FIRE can affect all of us, it does not discriminate and can kill and injure people of all ages. The aim of this booklet is to make you more aware of the causes of fire, the risk of fire and the action that you should take in the event of a fire.

WHO IS RESPONSIBLE FOR FIRE SAFETY?

Whilst employers and building owner share a fundamental role to play, every employee is responsible for ensuring that they do not do anything that could affect their own safety or the safety of other building users.

FIRE SAFETY LEGISLATION

The primary purpose of fire safety legislation is the life protection of persons in the buildings and persons nearby who could be affected by the outbreak of fire.

The *Fire Safety Order 2005 [FSO]* is the primary legislation relating to fire safety. The legislation covers nearly every type of building, except for private homes and individual flats in a block or house (although communal areas are covered by the legislation).

Under the legislation a 'Responsible Person/s' must be nominated, and they will have a duty to ensure the safety of everyone who uses the premises and those in the immediate vicinity who may be at risk if there is a fire.

To achieve this, the 'Responsible Person/s' will need to ensure that an assessment is made to determine that the general fire precautions at the premises are adequate. General fire precautions include:

- ▶ Measures to reduce the risk of fire on the premises and the risk of spread of fire on the premises.
- ▶ Measures in relation to means of escape from the premises.
- ▶ Measures for ensuring that the means of escape can be safely and effectively used at all times.
- ▶ Measures in relation to means for fighting fire on the premises.
- ▶ Measures in relation to the means for detecting fire on the premises and giving warning in case of fire on the premises.
- ▶ Measures in relation to arrangement for action to be taken in the event of fire on the premises.

Once these measures are in place, the 'Responsible Person/s' will then need to ensure that any facilities, equipment and devices provided are subject to a suitable system of maintenance.

FIRE SAFETY MEASURES UNDERTAKEN BY MANAGEMENT

To minimise the likelihood of fire within your premises, there are a number of fire prevention measures that have been implemented by your employer. These include:

Fire Risk Assessment

This identifies any hazards in the building and places a risk level on each hazard. Control measures should be introduced to reduce the risk levels of hazards or if this is not possible the hazard should be removed. If you wish to see the significant findings of the fire risk assessment, please ask your employer.

Fire Safety Manual

The Fire Safety Manual allows your employer to effectively manage the various aspects of fire safety. The manual contains the organisations fire safety policy and a copy of this will be made available to you upon request.

FIRE SAFETY MEASURES UNDERTAKEN BY STAFF

The law requires employees to co-operate with the management to ensure the premises are safe from fire and its effects. It also requires you to report to management any situations that could affect yours, or other relevant persons' fire safety (see Employee Reporting Procedures). You must also not do anything which will place yourself or other relevant persons at risk. To minimise the likelihood of fire within your workplace there are number of fire prevention measures that you must be aware of. These include:

Day to Day Fire Prevention Measures

- ▶ Ensure exit doors and routes can be used at all times.
- ▶ Good housekeeping.
- ▶ Rubbish is not allowed to build up and is disposed of regularly.
- ▶ Ensure all cigarettes are extinguished before being placed in bins and that you are aware of the organisations' smoking policy.
- ▶ Flammable liquids should be stored safely. e.g. Cleaning materials
- ▶ Electrical equipment turned off at the end of each shift.
- ▶ Use of portable heaters is controlled.
- ▶ Kitchen equipment should be kept clean and in good working order.
- ▶ Report any fire safety concerns to management (see Employee Reporting Procedures).

Basic Fire Safety Awareness for All Staff

- ▶ Know how to raise the alarm
- ▶ Know where the escape routes are
- ▶ Know where to report to [the assembly point – also stated on the fire action notices]

DON'T

- ▶ Block fire exits or escape routes
- ▶ Wedge open fire doors
- ▶ Remove fire extinguishers unless being used on a fire
- ▶ Ignore hazards
- ▶ Put yourself or anyone else at risk

CAUSES OF FIRE

Fires at work and in the home have three main causes:

- ▶ They are started deliberately (arson)
- ▶ They occur because people are not alert to fire hazards
- ▶ They occur because people are careless of fire hazards

Many fires are the result of:

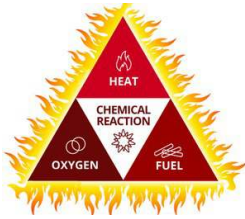
- ▶ Faulty electrical wiring and equipment
- ▶ Accumulations of rubbish, paper and other materials that can easily catch fire either by being too close to a source of heat or the careless disposal of cigarettes and matches or deliberate action
- ▶ Kitchen activities

HOW DO FIRES START?

We can all help to reduce the risk of fires starting by taking simple actions. First, we need to understand how fires start. Three things are needed for a fire to start:

- ▶ A source of ignition (heat)
- ▶ Fuel (something to burn)
- ▶ Oxygen (always there)

These are often referred to as the Fire Triangle



If any one of these is missing, then a fire cannot start or continue to burn.

FIRE DETECTION & WARNING SYSTEMS

To comply with the *Fire Safety Order 2005* your premises must have appropriate means of detecting and warning of fire. In small single-storey premises where a fire is unlikely to cut off the means of escape, and it is likely that any fire will be quickly detected by the people present a shout of "FIRE" may be all that is needed.

In larger premises, particularly a multi-storey premises, an electrical fire alarm with manually operated call points is likely to be the minimum requirement. When escape routes are likely to become obstructed, should a fire start in unoccupied areas it is likely that some form of automatic detection will also be required. You should make yourself aware of the means of detecting and warning of fire provided in the building. These may be:



Call Point



Detector Head

WHAT DO YOU DO IF YOU DISCOVER FIRE OR HEAR THE FIRE ALARM?

We have an emergency plan that specifies the action you will need to take in the event of discovering a fire or hearing the fire alarm. The extent of this plan will depend on the size and use of the premises. Fire action notices are often provided that complement the emergency plan and summarise the key actions.

As an example:

IF YOU DISCOVER A FIRE:

- ▶ Raise the alarm
- ▶ Call the Fire & Rescue Service (procedure stated on notices)
- ▶ Fight the fire, only if safe to do so! (Management will advise you on the policy)
- ▶ Evacuate the building

IF YOU HEAR THE FIRE ALARM:

- ▶ Leave the building by the nearest available exit
- ▶ If possible and safe to do so, switch off electrical equipment and close doors. Report to the assembly point (as stated on notices)



DO NOT stop to collect personal belongings
DO NOT use lifts (unless a specifically designed lift exists)
DO NOT re-enter the building unless authorised to do so
DO NOT take risks

N.B. The Responsible Person must ensure that a sufficient number of staff have been nominated to implement the emergency plan and that they receive adequate training in the duties that they have to carry out.

ESCAPE ROUTES & EXITS

To comply with the *Fire Safety Order 2005* our premises have suitable and sufficient escape routes.

Escape routes are designed so that in the event of a fire you can safely leave the premises. The size and layout will dictate the number and location of escape routes that your building requires. In small premises the only escape route may be the common travel route into the building. Larger premises are likely to require egress routes additional to those used to gain access to the building.

Where the escape route is a commonly used route it should be signed "Exit", have a pictogram and an arrow indicating the direction of the escape route. You should be able to follow these signs until you reach a doorway that is regularly used to enter/exit the premises.

When an escape route is only used in the event that persons need to quickly evacuate the premises it should be signed "Fire Exit", have a pictogram and an arrow indicating the directions of the escape route. You should be able to follow these signs until you reach a doorway that allows you to leave the premises.

It is a legal requirement that emergency doors must not be locked or fastened so that they cannot be easily and immediately opened by any person who may require to use them in an emergency. This also includes final exit doors that are intended to provide access to an outside area in the event of an emergency. Security devices have therefore been devised that permit persons inside the premises to easily open the door but provide an adequate level of security against intruders. You should make yourself aware of any devices used on exit doors in the premises.









FACILITIES PROVIDED FOR DISABLED PERSONS

The emergency plan will have identified if any procedures are required to assist disabled staff or visitors when evacuating the premises. Adequate training will be provided to members of staff that are nominated with responsibilities.

FIRE FIGHTING EQUIPMENT

To comply with The Fire Safety Order 2005, the premises must have the appropriate fire fighting equipment. There are different types of fire extinguishers designed to tackle different types of fire. Some of the most common extinguishers are:

Type	Colour Patch	How it extinguishes a fire and use
Water	Red	<p>Extinguishes the fire by removing the heat from the burning material. For use on solid materials. DO NOT use on electrical fires.</p>  <p>The water should be aimed at the base of the fire then using a slow sideways sweeping motion working upwards until the fire is extinguished.</p>
Powder	Blue	<p>Extinguishes the fire by smothering it and cuts off the oxygen. Re-ignition could occur on deep-seated fires. Can also obstruct vision in confined areas. For use on solid materials, flammable liquids and electrical equipment.</p>  <p>When extinguishing fires with a powder extinguisher a rapid sweeping motion should be made with the nozzle.</p>
CO ²	Black	<p>For use on flammable liquids and electrical fires. It extinguishes the fire by smothering it, cutting off the oxygen.</p>  <p>On class B fires (petrol, etc.) the extinguisher horn should be directed to the heart of the fire and then in a sweeping motion across the edges of the fire.</p> <p>When fires occur in electrical equipment the horn should be directed into the grills and vents of the equipment.</p> <p>DO NOT hold the nozzle of the extinguisher or the base as it gets cold!</p>
Foam	Cream	<p>For use on solid materials and flammable liquids. It extinguishes the fire by smothering it with a blanket of foam and cuts off the oxygen.</p>  <p>On contained fires the foam should be directed against the vertical surface at the back of the fire so that the foam falls down and spreads a blanket over the fire.</p> <p>DO NOT use on electrical fires.</p>
Wet Chemical	Yellow	<p>It cools and emulsifies the oils, extinguishing the flame and seals the surface to prevent re-ignition. Mainly for use on cooking fires but can also be used on solid materials.</p>  <p>When extinguishing a fire involving cooking oils you need to be at least 1m away from the fire. You should use the lance to direct the content of the extinguisher down onto the fire.</p>
Fire Blanket		<p>The fire blanket smothers the fire by cutting off the oxygen. Mainly used for small cooking oil fires.</p> 






You should familiarise yourself with the different types and locations of the portable fire fighting equipment that is provided in the building.

You will be informed of the policy regarding staff using fire extinguishers.

If you notice that any of the extinguishers have been discharged, damaged or are missing you should report it to management.

TYPES OF FIRE

Not all fires are the same and therefore the extinguishers provided are specific to the type of fire that can be expected. The information on the extinguisher will tell you what it can be used on but it helps if you are aware of this before you have to use one.

Class of Fire	Symbol	Example
Class A		Wood, Paper, Textiles, Fabric
Class B		Petrol, Diesel, Oils
Class C		Butane, Methane, Propane
Electrical		Computers, Switchgear, Fax
Class F		Cooking oils, Fats

BASIC RULES FOR FIGHTING A SMALL FIRE

In the event of a small fire being discovered, the procedure for raising the alarm must always take priority. However, attempts by trained staff may be made to fight the fire with the equipment provided when:

- ▶ It is deemed safe to do so
- ▶ Such action would contain or extinguish the fire
- ▶ It is likely to have a direct and immediate effect in protecting life

You should:

- ▶ Make certain you have the correct fire extinguisher, and you know how to use it
- ▶ Always keep an exit or clear route directly behind you
- ▶ Only tackle small fires

DO NOT:

- ▶ Stay too long
- ▶ Fight a fire if you are not sure what is burning or if you are not confident in using the equipment
- ▶ Take risks

PEOPLE'S REACTION TO FIRE

People's behaviour to fire may depend on many factors. For example:

- ▶ Whether they have a defined role within the building population
- ▶ The influence of fire safety training
- ▶ Age
- ▶ Familiarity with the building
- ▶ Physical capabilities
- ▶ Gender

People will react to initial warning of fire in different ways and in looking at fire safety we need to understand these. Some examples are:

- ▶ A person with a defined role in the evacuation procedures (Fire Wardens) or persons who have received basic fire safety training are more likely to be aware of what the alarm indicates and proceed with the appropriate evacuation procedures.
- ▶ People in groups will decide what to do, depending on their perceptions of others reaction. Without a dominant personality providing an early lead, people may take longer to respond than if they were alone.
- ▶ Members of the public or visitors are more likely to ignore an audible warning and continue with their pre-planned activity. They may:
 - Not be aware of what the alarm indicates
 - Assume a fire alarm/security alarm is being tested
 - Assume that the audible alarm is due to some sort of fault

Once the existence of a fire has been recognised, people may undertake a wide range of possible behaviour. These depend on their role and training, and on peoples' perception of the developing fire situation. This may of course, differ considerably from the truth. Some examples are:

- ▶ People may ignore the situation and continue working
- ▶ Be uncertain of what to do and hesitate in taking action
- ▶ Go to collect belongings
- ▶ Attraction – want to stay and watch!
- ▶ Attempt to fight the fire
- ▶ Seek to warn others
- ▶ Rescue/assist others
- ▶ Seek refuge or escape
- ▶ Where members of the public are present, they may try to join family groups

As the fire situation worsens, the range of viable options will reduce.

A key to understanding human behaviour is the observation that people rarely panic in fires. They choose from a range of behaviour options, dependant on their assessment of prevailing conditions. However, it must be recognised that, in some cases, their assessment may be incorrect based on inadequate or ambiguous information. With the benefit of hindsight, it is easy to dismiss the persons' actions as irrational or panic.

ARSON

Arson is a legal term and covers the whole range of deliberate fire setting. As this is the biggest cause of fire in the UK it is important that you are aware of the risk posed by arson and the measures that you can take to minimise the risk of an arson attack on your workplace.

It is a very costly crime. It is estimated that it costs insurers approximately £1 million per day and the uninsured losses could increase this to approximately £500 million annually. In addition to these direct losses, there will also be an element of business interruption and the cost of any deaths or injuries is of course impossible to estimate in financial terms. The motives for arson are many and varied, some of these include:

Arson with a motive

- ▶ Insurance fraud
- ▶ Concealment of another crime

Apparently motiveless action

- ▶ True pyromania
- ▶ Criminal damage and vandalism

Juvenile fire involvement

- ▶ Fire play (inc. curiosity & experimentation)
- ▶ Fire setting (including peer pressure)

All staff should be aware of the problem of arson and the measures that they can take to limit the problem. These include:

- ▶ Politely challenging strangers that you meet on the premises. A simple “Can I help you?” can be sufficient to illustrate to a potential arsonist that staff are vigilant.
- ▶ Good housekeeping: regular checks by designated persons and removal of combustible waste materials to a safe storage area.
- ▶ Closing doors to secure areas when you leave to make sure that someone cannot enter through the door before the 'self-closer' has had the opportunity to close the door against the latch.
- ▶ Knowing the close down procedures required at the end of each period of working to ensure that the premises are secure., there are no unauthorised persons remaining in the building and that all the processes have been shut down safely.

AFFECTS OF FIRE ON THE HUMAN BODY

As you know fire produces heat and this can affect the human body in a number of ways.

Heat through either direct contact with flames or by exposure to extreme radiant heat can cause skin burns. There are three different classes of burns:

- ▶ **Superficial burns (First degree)** – Only involves the outer layer of skin and characterised by redness, swelling and tenderness. This type of injury usually heals well if first aid is given promptly and blisters do not form.
- ▶ **Partial thickness burns (Second degree)** – The skin becomes red raw. Blisters will form over the skin because of the fluid released from the damaged skin. These burns usually heal well but they can be serious if large amounts of the body are affected. If they cover more than 20% of the body, they may be fatal.
- ▶ **Full thickness burns (Third degree)** – All layers of skin are affected. There can be damage to nerves, fat tissue, muscles and blood vessels. These burns need urgent medical attention.

FIRST AID TREATMENT

Your workplace should have adequate first-aid facilities and in addition the names of the person/s responsible for administering such aid must be displayed for the information of all persons in the workplace.

A minimum of one first aider must be appointed and available during normal working hours. It is advisable that, in addition to the first aider, a number of appointed persons are nominated, as defined by the Health and Safety (First Aid) Regulations 1981 and its accompanying Approved Code of Practice.

Some of the actions recommended for burns or scalds outlined in first-aid manuals include:

- ▶ Douse the burn with plenty of cold running water for at least 10 minutes or until the pain is relieved.
- ▶ Remove any rings, watches, shoes, etc. before the tissue begins to swell.
- ▶ After cooling remove any soaked clothing but DO NOT remove any burnt clothing as this will be stuck to the skin.
- ▶ Cover the affected area with a sterile dressing to protect against infection.
- ▶ Reassure the casualty, monitoring the level of their response, breathing and pulse until further assistance arrives and treat them for shock.

N.B. The actions listed above are not intended as comprehensive guidance for persons administering first aid treatment. It is advisable that only persons who have successfully completed an accredited first-aid training course to current, nationally recognised standards administer first-aid treatment.

EMPLOYEE REPORTING PROCEDURE

The Fire Safety Policy states:

Concerns about Fire Safety

Should any member of staff have any concerns about any aspect of fire safety, they must report the matter to management who will, if appropriate, take remedial action and inform all staff.

As previously stated, the law requires employees to co-operate with management to ensure the premises are safe from fire and its effects and do not do anything which will place themselves or other relevant persons at risk. It also requires you to report to management any situations that could affect yours or other relevant persons' safety.

Your organisation has prepared a Fire Safety Policy that includes procedures for the regular checking and maintenance of fire safety measures. There may however be occasions where an employee is concerned about an aspect of fire safety and employees must report any concern to management. A record of any reports received from employees should be recorded with the weekly checklist. Some examples of concerns are:

- ▶ Any faults or dangerous equipment
- ▶ Any spill of hazardous materials
- ▶ Any unforeseen hazardous practices
- ▶ Any failure to observe fire precautions
- ▶ Any deficiency in, failure of, damage to or disruption of fire protection equipment or systems.

NOTES



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