Chapter 5: Fire procedures in the workplace

Fire safety measures

As you saw in the health and safety section, both employers and all members of staff have a legal duty to do what they can to help keep everyone safe.

Fire safety on the premises or site is important for both staff and any visitors or customers. If a fire occurs in the workplace, it could result in the disruption of the normal business activities and can affect profitability. More importantly, staff and/or customers could be injured or even lose their lives.

Good fire safety is, therefore, everyone's responsibility. Basic fire prevention measures can go a long way towards helping to prevent the chances of a fire starting in the first place, for example:

- all non-essential electrical appliances should be switched off
- electrical points should not be overloaded
- all electrical equipment should be inspected regularly and maintained properly
- flammables must be stored safely
- ashtrays should be emptied regularly
- rubbish should be stored away from the building
- electric and gas fires must be kept well away from furniture

Under the **Regulatory Reform (Fire Safety) Order** of 2005, (Fire (Scotland) Act 2005) employers must nominate a competent person to carry out a full fire risk assessment for the site, which must be documented.

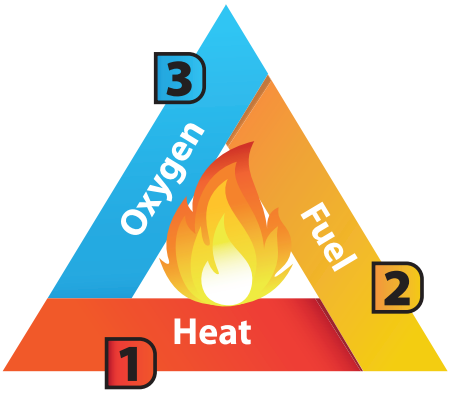
They must also provide their employees with any relevant information, instruction and training to ensure their safety while working on the site.

Employees such as security operatives must take responsibility for their own health and safety, and for that of others. They must be observant, vigilant and also cooperate with their employers in all matters relating to fire safety. This includes following any training and adhering to the fire plan.

Elements needed for a fire to exist

Fire needs 3 elements to start and survive. They are heat, fuel and oxygen. If any of these 3 elements are greatly reduced or removed, then the fire itself will be reduced or extinguished.

The fire triangle



This is known as the fire triangle. All 3 elements need to be present for a fire to start and continue. If any 1 or more of these elements are taken away, then the triangle is broken and the fire will die out.



Fire needs 3 elements:

1 **HEAT** - a minimum temperature is needed to start a fire, and for it to continue.

2 **FUEL** - fire needs something to burn, like solid fuel, oil or gas.

3 **OXYGEN** - fire needs oxygen to burn, as it supports the combustion process.

Classifications of fire

Fires are divided into types or classifications. Each class requires a different method of extinguishing and so it is important that we understand the differences.

	**CLASS A**	Ordinary combustibles, i.e. paper, wood, textiles, rubber, plastic, fabrics
	**CLASS B**	Flammable liquids, i.e. petrol, oil, paints and solvents
	**CLASS C**	Flammable gases, i.e. butane, propane
	**CLASS D**	Metal fires, i.e. magnesium, sodium
	**CLASS F**	Cooking oils and fats
		Fires involving electricity

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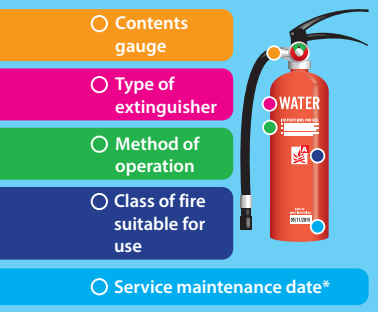
Information on fire extinguishers



*All extinguishers should be inspected annually by a competent person, e.g. an extinguisher engineer.

Actions on discovering a fire

It is important that all security operatives take the correct actions on discovering a fire. You will need to:

- follow the organisation's policies and procedures
- sound the alarm and inform emergency services
- follow the acronym of FIRE:
  - Find – you discover a fire
  - Inform – raise the fire alarm
  - Restrict – restrict access to the area of the fire
  - Evacuate – evacuate the building or extinguish (extinguish the fire if safe to do so).
- control panel: Important to ensure full understanding of the extent of the area of the incident, to pass on correct message to emergency services e.g. with regard to materials or chemicals stored in the affected area

Fire-fighting equipment

Fire extinguishers are generally used to fight small fires, to prevent them spreading and causing large-scale damage.

They have a limited capacity, but they can be easily carried to the fire and quickly put to work.

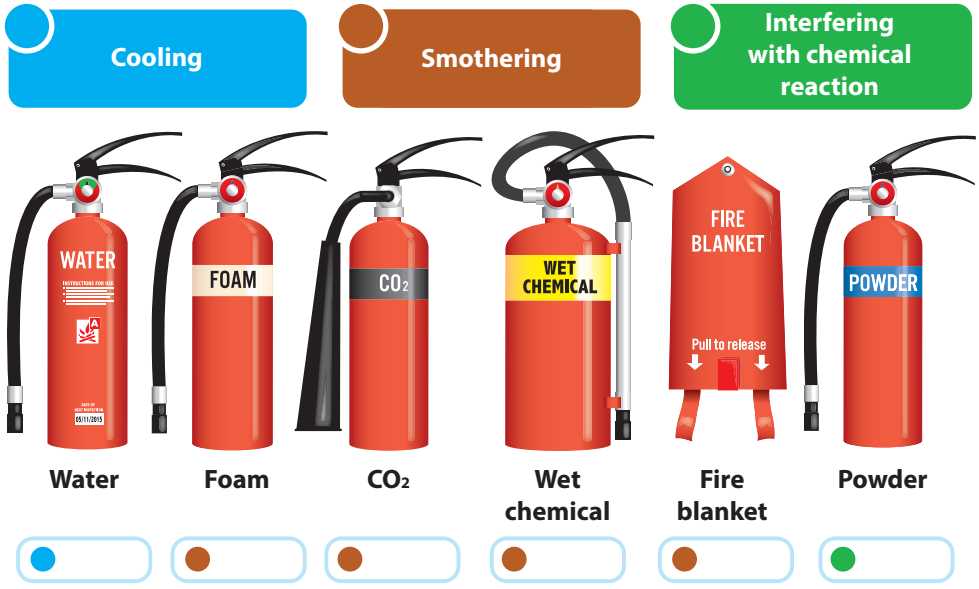
They are intended to be used by anyone who needs them, so it is important that all members of staff learn of their uses, locations and methods of operation.

Fire extinguishers should be sited in conspicuous locations on escape routes, such as next to exits and in corridors, and should be mounted on wall brackets.

Different types of extinguishers are designed to fight different classes of fire, so it can be useless or even dangerous to use the wrong type of extinguisher at the scene of a fire.

We need to understand, then, how the different types of extinguishers work and how they put out fires.

Fire extinguishers



Only attempt to fight a fire if:

- the alarm has been raised
- the emergency services have been contacted
- the fire is not spreading and has been confined
- you have a clear escape route not threatened by fire
- you have selected the correct extinguisher

Do not attempt to fight a fire if:

- it is bigger than a wastepaper bin (rule of thumb)
- you need more than 1 extinguisher
- the room is filling with smoke
- you do not have a clear escape route
- gas cylinders or chemicals are involved
- your efforts are not reducing the size of the fire
- you do not have the correct extinguisher

To operate an extinguisher:

- select the correct extinguisher
- check the contents gauge
- pull the pin to break the seal
- holding the extinguisher upright and squeeze the trigger
- test the range and content (away from the fire)
- extinguish the fire using the correct technique for that type of extinguisher and the nature of the fire

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Other firefighting equipment

Apart from fire extinguishers, there are several other types of equipment used to put fires out or to reduce their effects.

Fire blankets

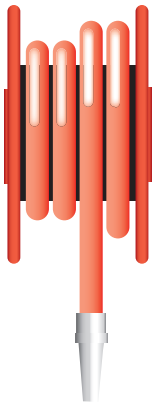


Fire blankets can be used to extinguish fires by smothering them. They are often found in kitchens as they are very useful for extinguishing fat fires in pans.

Sprinklers

Some fire alarm systems are connected to sprinklers which spray water on to the fire from outlets in the ceiling, holding back the fire until the arrival of the fire brigade.

Hose reels



Hose reels are long lengths of rubber hose on large drums positioned strategically around the site. The hoses are permanently connected to the mains water supply and are started by opening a valve before use. They can be quite heavy to unreel when needed but are very effective when used as they provide a limitless supply of water.

Dry and wet risers

Some buildings, particularly multi-storey ones, have riser systems built in. These systems consist of long water pipes running along the outside of the building and across the ceilings on each floor, allowing water to be dispensed via sprinklers to each floor in the event of a fire.

Wet riser systems have water in the pipes all the time, whereas dry riser systems need to be activated manually to send the water into the pipes.

Flooding systems

Flooding systems are designed to be used in unoccupied rooms where there are high value contents or areas where a fire may cause major disruption to the activities of the organisation. Examples might be archives, electrical equipment or switchgear.

On detection of the fire, a fire extinguishing medium (most commonly CO_2) will be discharged into the room to replace the air and extinguish the fire by smothering.





Fire doors and fire exits

Internal fire doors are used to help prevent or reduce the spread of smoke and flames from one room to another. They should be closed at all times, unless they can be closed electronically if the fire alarm activates.

They should not be obstructed. Fire exits are vital as a means of escape in the event of a fire. They should be clearly marked, must be unlocked when anyone is in the building, and should not be obstructed on the inside or the outside.

Fire alarm control panels

These are the warning and controlling units within a fire alarm system. Once a possible fire emergency is detected within the building or somewhere on the site, usually as the result of a signal from a smoke or heat detector, the control panel alerts those monitoring it via various lights and audible alarms.

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Risk assessments will prescribe the site's own specific procedures for the action to be taken in the event of a fire.

Typical actions would include:

- raising the alarm - yelling fire to warn others
- operating the nearest manual call point (if fitted)



- calling the fire service (999)
- evacuating the area
- restricting access and isolating the fire
- reporting to the assembly point



- only attempting to fight fire if it is safe to do so and you have been trained

By understanding the layout of the control panel, security operatives can work out what type of an emergency it is, exactly where it is occurring and over what extent of an area.

A decision can then be made as to what appropriate action to take, be it to inform a supervisor and then search the area concerned, or to call the fire brigade immediately, and provide information about the incident itself and any secondary dangers there might be.

Some of the more sophisticated systems actually call the fire brigade, sound the fire alarm, unlock doors, cut off electricity and set off sprinkler systems automatically.

If you are required to monitor a fire alarm control system as part of your role as a security operative, then you need to properly understand how it works and what actions you personally need to take in an emergency.

Fire evacuation procedures

One of the most important roles for security operatives in the event of a fire will be ensuring that the site is evacuated quickly and safely.

Hopefully, both staff and visitors/customers will know to leave the building when they hear the fire alarm sounding. As a security operative, you must be available to encourage people to leave via the safest exit, and to assist anyone who does not seem to know what to do. Particular care needs to be taken to look after any vulnerable people like children, the elderly or those with physical or mental difficulties. It is also important to try to avoid causing unnecessary panic.

Security operatives need to take control of fire incidents in an assertive but calm manner. You need to show decisiveness, leadership and use clear, effective communication skills so that others understand how serious the situation is.

Security operatives also need to know where the fire assembly points are and what needs to be done once the building or site has been evacuated.

Evacuation procedures need to be practised.

Remember the 5 P's:

- P **PLANNING** and
- P **PREPARATION**
- P **PREVENTS**
- P **POOR**
- P **PERFORMANCE**

As a security operative, if you act promptly and correctly in times of emergency, you can help save time in the evacuation, keep yourself and others safe, assist the emergency services, prevent injuries and save lives.

Chapter 5: Fire procedures in the workplace

Fire wardens/marshals

Fire wardens (sometimes called fire marshals) are members of staff that are nominated to take responsibility for a particular area with regards to fire safety. The numbers of nominated wardens/marshals will vary depending on the size of the site and the numbers of people involved.

Under the Regulatory Reform (Fire Safety) Order of 2005, (Fire (Scotland) Act 2005) they are there to assist the designated person responsible for fire safety generally.

The actions to be taken by fire wardens/marshals in the event of a fire are detailed in the evacuation plan. Those duties will usually include:

- sounding the alarm/calling the fire service
- checking the allocated area to ensure that everybody has left
- taking control of the evacuation and ensuring that anybody with evacuation difficulties is aided
- proceeding to the assembly area and reporting to the fire officer in charge



Taking or assisting with the roll call.



The following list, although not exhaustive, details some of the specific roles usually given to fire wardens/marshals:

- assisting with fire risk assessments
- checking that all exit doors and escape routes are unlocked and unobstructed



- ensuring that all fire extinguishers are in the correct position with seals in place
- checking that all safety signs are clearly visible and in the correct place
- making sure that all alarm call points are unobstructed and working correctly
- checking that all fire doors are closed and functioning properly
- ensuring that corridors and walkways are kept clear
- ensuring that assembly points are clearly marked and easily accessible
- reporting any equipment faults