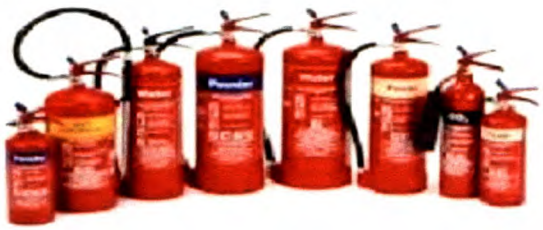
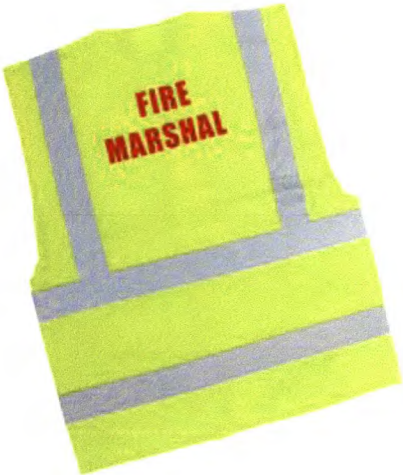
FIRE MARSHALL TRAINING HANDBOOK





UK FIRE RISK ADVISORY SERVICE

UKFRAS

What is a Fire Warden responsible for generically?

- Assessing fire risks
- Spotting and reporting hazards
- Taking appropriate action in the event of a fire
- Being trained to fight a fire in its early stages
- Playing a leading part in fire drills
- Ensuring the safe evacuation of staff and other occupants in the event of a fire
- Ensuring the development and maintenance of a healthy Fire Safety culture

What is a Fire Warden responsible for as part of

Fire wardens are responsible for:

Championing fire safety principles at their designated workplace site and supporting the Health and Safety Group on fire safety issues

Ensuring Fire safety checks have been carried out at the required intervals.

Ensuring all fire safety actions have been appropriately recorded in the Workplace Fire Log book.

Informing all staff of any significant findings from the fire risk assessment of the building.

Supporting all staff and all new employees who work from the workplace site in familiarising themselves with the location of fire safety equipment, exits and emergency fire procedures.

Co-ordinating Fire Safety training for the workplace site with the support of the H&S Group

Ensuring fire safety drills occur in accordance with fire safety risk assessment

Identifying themselves to the Fire Evacuation Lead in the event of an actual fire and assist accordingly in the response to the incident

Fire wardens

- Minimum of two per floor area on site when occupied, plus deputies to cover absence
- Names to be displayed in the work place for the area they are nominated to cover, plus enter names or person's role in the Fire Risk Assessment manual
- Nominated persons to call the fire brigade and evacuate designated areas
- Wear a high visibility jacket for identification purposes
- One person should control the evacuation and will report to the fire service when they arrive

Action to be taken by a person discovering a fire

- Close the door to the room alight if safe to do so
- Raise the alarm
- Evacuate to assembly area

Essential information

- The location of the assembly point(s)
- Knowledge of evacuation routes and methods for non-ambulant people, and where areas of refuge are located
- Understand your duties and the areas your role covers in an evacuation
- Only those who have to go to the fire alarm control panel should do so
- In non clinical areas a fire evacuation is held once every 6 months at least to test procedures

Pre-Evacuation

- Understanding of the layout of the building
- Basic understanding of human behaviour
- How to search effectively
- The location of risk rooms
- Have knowledge of the fire risk assessment outcomes
- Staff who have emergency egress needs
- How to identify rooms that may present a risk before entering to search
- Fire alarm – what does it sound like?
- Location of the fire alarm control panel
- How to read the information
- How and who is authorised to reset the panel

- What day of the week and time is the fire alarm tested?
- Ensure the tests are recorded in the Fire safety Management Book (RED)
- Assist in organising fire evacuation drills (twice per year).

Keeping escape routes safe

- Monitor fire doors to ensure they are clear of equipment, especially in corridors and onto stairs
- Monitor escape corridors for obstructions
- Do not allow waste to accumulate in escape routes
- Consider other people who may need to use them in an emergency
- Ensure fire doors to store rooms are kept closed

Fire Doors

- Resist passage of fire/smoke for at least 30 minutes some up to 60 minutes when closed
- Must be kept closed when indicated Fire Door Keep Shut
- Risk critical doors are along corridors, top and bottom of stairs

Emergency call

- Nominated person calls fire service
- 999 via land line or mobile goes direct to BT call centre
- 112 available on a mobile only, goes to a Police Control
- Evacuation strategy – phased or simultaneous?
- Fire alarm automatically operates or manually via call point

Assembly Places

- People should remain at their designated assembly places
- If possible account for all persons. Report the results either to the Fire Warden in charge, (in the case of multiple assembly points serving one building), or directly to the Fire Service.
- People should not return to the building until told that it is safe to do so by either the Fire Warden or the Fire Service

After the Alarm

- Staff resume work, public re-admitted
- Inform Estates of the event, may need to reset the fire panel
- The event must be recorded in the fire safety compliance logbook held on site (Red Folder) by the Manager of the site or delegated deputy

Fire Extinguishers

- Before use raise the alarm first, close doors to the room
- Is the fire larger than a small waste bin?
- Electrics: use a Co2,
- Paper and fabrics use water based extinguisher
- Report to the assembly point and pass on info to other Fire Wardens or nominated persons. As few people as possible to communicate with the fire service to avoid confusion. To achieve this, the person in charge of the assembly point collates as much information as possible, then communicates this information to the officer in charge of the first fire service attendance.

Priority information should be as follows:

- The nature, location and extent of the fire or incident.
- The location, number, condition and names of any persons believed to still be in the building or in need of help anywhere nearby.
- The best way to access the building.
- Any hazards to firefighters, such as oxygen cylinders.
- The location of electric, gas and water isolation points.

FIRE SAFETY CHECKS

FIRE WARDEN NAME: DATE:

Brief details of checks	Daily check	Weekly check	Monthly check	6 Monthly	12 Monthly
Fire alarm panel is showing normal condition, no faults are showing or buzzers are sounding	✓				
Comments:					
Internal fire escape routes are clear, no trip hazards and fire exit doors accessible and not locked	✓				
Comments:					
No missing or damaged fire fighting equipment or related signage		✓			
Comments:					

Brief details of checks	Daily check	Weekly check	Monthly check	6 Monthly	12 Monthly
Fire doors, no damage is evident and doors close satisfactorily from any open angle		✓			
Comments:					
Weekly Fire alarm test (Is audible or visible) to all members of staff. Different call point to be used on each test.		✓			
Comments:					
External routes are clear of obstructions and usable by all persons	✓				
Comments:					
Emergency lights are lit when system check		✓			
Comments:					

Brief details of checks	Daily check	Weekly check	Monthly check	6 Monthly	12 Monthly
Verify work outstanding or in progress and update log book with status		✓			
Comments:					
Carry out fire evacuation drill 6 monthly only				✓	
Comments:					
Fire Safety awareness training for every new employee	On starting employment				
Comments:					
Check outside of building for threats of Arson	✓				
Comments:					
Competent person to carry out a fire risk assessment					✓
Comments:					

COURSE NOTES

FIRE

THE MORE A FIRE CONSUMES, THE MORE FIERCE IT BECOMES

Fire growth is exponential

Fire kills in minutes, but.....

SMOKE KILLS IN SECONDS

Smoke often presents a greater threat than fire, for the following reasons:

- It travels faster and further than fire, easily penetrating voids and air circulation systems, such as heating and air conditioning

- It often contains dangerous, hot gases and severely restricts visibility, making escape slow, disorientating and dangerous

What are the chemicals within the smoke layer?

- Acrolein, Sulphur & Nitrogen
  Irritants that sting the eyes, nose & throat

- Carbon Monoxide & Hydrogen Cyanide
  Can cause drowsiness, sleep and eventually prove to be fatal

- Phosgene & Dioxins
  Found in biological nerve agents, and can make it very difficult to control even basic movements – can also prove to be fatal

  Because of the abundance of unnaturally occurring materials, such as plastics, foam in furniture etc, most building fires produce all of these substances.

Any fire requires three things to survive

- Water
- Cools the fire

HEAT

- Removing fuel away from the fire path, or for gas fuelled fires, switching off the gas supply

FUEL OXYGEN

Fire Blanket and Foam extinguisher both cover the burning material and therefore starve the fire of oxygen

These three elements make up the
TRIANGLE OF FIRE

GIVE ANY FIRE ALL THREE, AND IT WILL CONTINUE TO GROW
OR
(A more optimistic approach)

TAKE ANY ONE ELEMENT AWAY AND THE FIRE WILL GO OUT!

MAIN CAUSES OF FIRE

There are three main causes of fire in the workplace:

- Arson – Inappropriate smoking, poor security and unsecured refuse make arson a lot easier. Be alert.
- Electrical defects – untested or overloaded electrical items, installations and wiring can and does lead to many workplace fires. If you notice defective, overloaded or abused items or systems, tell the appropriate people. Doing nothing contributes to the problem.
- Heat producing appliances or processes – defective and misused microwave ovens, defective toasters, unprotected welding and other hot works, for example.

ACTIONS TO TAKE
IN THE EVENT OF A FIRE

A.B.C.D.E

In the event of a fire starting, the actions taken will be generic to most workplaces.

To help remember them in an emergency, we call it the A.B.C. of fire.

- **A**LARM: (Raise the alarm)
- **B**RIGADE: (Call the fire brigade)
- **C**ONSIDER: (Whether to do d or e)

DEAL WITH THE FIRE

EVACUATE: (And report to assembly point)

Dealing with the fire

Fire fighting is a first or a last resort.

- If the fire is small and can safely be extinguished, then you may attempt to do so if it is safe. Only use 1 fire extinguisher on a fire before evacuating the building. If possible, try not to fight a fire alone.
- If you are trapped by the fire, or you are in a place where people cannot be moved quickly, such as an intensive care ward, care home or even a private dwelling, you may have no option but to fight it.
- Remember – If you become a casualty, you may also put others in danger.

SOME IMPORTANT POINTS TO REMEMBER

- Prevention is better than cure. Be aware of potential fire hazards and take action to minimise risk.
- Practice your fire procedures regularly. Ensure that all members of staff are aware of their responsibilities in the event of a fire.
- Only fight a fire if it is safe to do so, or if you feel that you have no choice.
- Never fight a fire alone unless you have no other choice.
- If possible, fight the fire from the doorway of a room and keep as low as you can.
- If the contents of one extinguisher do not extinguish the fire, do not attempt to use another. Evacuate the premises.
- REMEMBER – In confined spaces, the use of Co2 and dry powder extinguishers will make it hard to breathe, so fighting the fire from a doorway is usually safer.
- If you are unsure if a door has a fire behind it, feel the door first. If it is hot, there is probably a fire behind it and opening the door is likely to be dangerous. If you do open a door that you are unsure of, stand behind the door and open it just a few centimetres. If all is well, then carry on. If there is smoke and fire behind the door, close it immediately.
- During evacuation, if there is nobody behind you, close doors as you pass through them.
- When you have left the building, report to your designated Fire Assembly Point. All persons need to be accounted for, to ascertain whether they are at the assembly point, still in the building or are unaccounted for. This information is critical to the emergency services as fire crews will commit themselves to rescuing people that are either unaccounted for or still in the building.
- If trapped in a room, seal the doorway. If trapped in smoke, lay on the floor – there is fresh air there and you can see, (and it's cooler too).

- If trapped, make yourself known by any means possible, whether it be by mobile phone, shouting, banging on doors or even breaking an outside window,(this will almost certainly gain attention, but falling glass from a window is also dangerous, so if possible, check it is clear below the window first).

- In extreme circumstances, you may be forced to jump from a window. Do not do this unless it is absolutely necessary to save your life. If you are going to attempt to jump, throw soft items down first, so that you can use them to land on, and hang down first, reducing the distance from your feet to the ground. This is an absolute last resort and should never be attempted unless it is your only choice. Do not jump because you are panicked, and run through all other options first.

THE SAFE AND APPROPRIATE USE OF FIRE EXTINGUISHERS

Please note that you should not attempt to extinguish a fire if you have no clear escape route or unless you have no other option. **If the fire is not out by the time one extinguisher is empty, leave the area immediately. All of the extinguishers shown below do not need to be discharged in one burst, and can be used intermittently.**
REMEMBER – YOUR SAFETY IS PARAMOUNT.

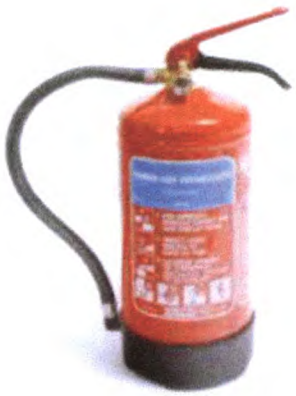
SOME GENERIC RULES

- Remove pins and tags if present by pulling quickly
- Ensure you have the correct medium for the type of fire
- Carry with the bottom handle
- Discharge with the top handle, either intermittently or continuously
- If the extinguisher is too heavy, rest it on the ground and operate it from there
- Stay low and near an exit doorway if possible
- Never fight a fire alone unless you have no other choice
- If you have used one extinguisher / fire blanket and not extinguished the fire, do not attempt to use another. If possible, get away from the fire
- If there is a sign present, but no extinguisher, find out why
- Extinguishers may now be any colour, but are usually red or chrome. At least 5% of the body of the extinguisher will retain the old colour coding

WATER EXTINGUISHER

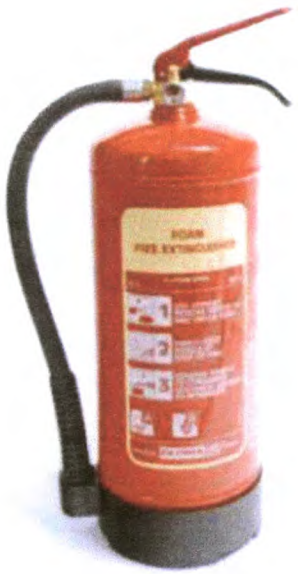
- Use on Wood, Cloth, Paper, Plastics, Coal etc. Fires involving solids.
- **Do not use on burning fat or oil or on electrical appliances.**
- Point the jet at the base of the flames and keep it moving back and forth across the area of the fire.
- Ensure that all areas of the fire are out.
- Works mainly by cooling the burning material.
- Range: 6 – 8 metres and discharges for at least 45 seconds

DRY POWDER EXTINGUISHER



- Wood, Cloth, Paper, Plastics, Coal etc.
- Fires involving solids.
- Liquids such as grease, fats, oil, paint, petrol etc.
- **Not to be used on chip or fat pan fires.**
- **Safe on live electrical equipment**, although does not penetrate the spaces in equipment easily and the fire may re-ignite.
- This type of extinguisher does not cool the fire very well and care should be taken that the fire does not re-ignite.
- Point the jet or discharge horn at the base of the flames and, with a rapid sweeping motion, drive the fire towards the far edge until all the flames are out.
- Works mainly by interfering with the chemistry of fire
- Range: Approximately 4 metres

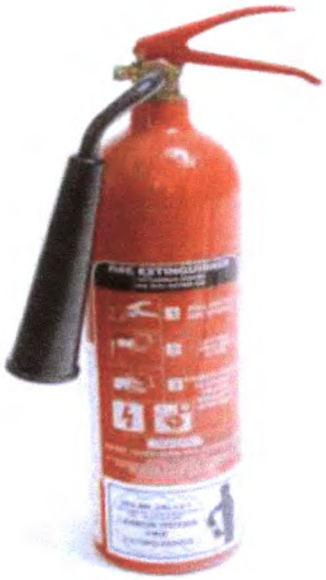
FOAM EXTINGUISHER



- Wood, Cloth, Paper, Plastics, Coal etc.
  Fires involving solids.
- Liquids such as grease, fats, oil, paint, petrol, etc.
- **Not on chip or fat pan fires.**
- These extinguishers are generally not recommended for home use.
- For fires involving solids, point the jet at the base of the flames and keep it moving across the area of the fire.
- Ensure that all areas of the fire are out. For fire involving liquids, do not aim the jet straight into the liquid.
- Where the liquid on fire is in a container, point the jet at the inside edge of the container or on a nearby surface above the burning liquid.
- Allow the foam to build up and flow across the liquid.

- Works mainly by smothering the burning material.
- Range: 6 – 8 metres and discharges for at least 45 seconds

CO2 EXTINGUISHER



- All types of fire **apart from chip or fat pan fires**.
- Works well on electrical fires and causes little or no damage at all.
- This type of extinguisher does not cool the fire very well and you need to watch that the fire does not re-ignite.
- Fumes from CO2 extinguishers can be harmful if used in confined spaces as they displace oxygen. This means that if you used this extinguisher in an enclosed area the size of a bathroom cubicle, it would be difficult to breath.
- Ventilate the area as soon as the fire has been extinguished.
- The discharge horn should be directed at the base of the flames and the jet kept moving back and forth across the area of the fire.
- Vaporizing liquid gas, which smothers the flames **by displacing oxygen in the air**.
- Please note: The bottom of the extinguisher and the entire horn assembly can get extremely cold when the extinguisher is used, and can inflict a cold burn if touched for more than a few seconds. DO NOT TOUCH THESE PARTS DURING, OR SHORTLY AFTER, USE. Hold the back and the handle. Do not be alarmed by the loud and sudden noise as the extinguisher operates. This is normal.

FIRE BLANKET

HOUSED

Deployed – Danger of burning fingers

Safe grip – Hands and fingers shielded by Fire Blanket

Safe grip – Hands and fingers shielded by Fire Blanket

- Fires involving both solids and liquids.
- Smothers the fire.
- Particularly good for small fires in clothing and for chip and fat pan fires, **provided the blanket completely covers the fire.**
- If the blanket does not completely cover the fire, it is unlikely to extinguish it.
- Place carefully over the fire, pushing away from you.
- Keep your hands shielded from the fire.
- Do not waft the fire towards you.
- **Do not remove the fire blanket for at least 30 minutes after using, as latent heat may cause re-ignition.**
- **Do not re-use a fire blanket.**

Emergency Plan Exercise (30 Minutes)

Action to be taken by a person discovering a fire
How the fire brigade are called and who is responsible
Evacuation procedures
Key escape routes
Assembly places
Duties and specific responsibilities of nominated persons
Arrangements for safe evacuation of persons identified as having higher risk from fire

Provision of fire fighting equipment provided
High risk rooms (if present what arrangements)
Liaison procedures for fire brigade on arrival
Location of fire alarm panel and zone allocation
Frequency of fire evacuation drills

Fire Risk Assessment exercise (30 minutes)

Escape routes clear?

Doors onto escape routes clear, especially at top or bottom of stairs?

Wedged / held open fire doors?

Fire fighting equipment in good order, service labels, signage?

How can the alarm be raised?

Portable appliances P.A.T. tested?

Overloaded sockets or dangerous appliances (worn cables etc)?

Dangerous / flammable substances stored on premises?
Final exits unlocked when the building is occupied?

External escape routes clear?

Assembly points clearly marked and unobstructed?

Refuse stored away from the building? Secure containers?

Fire exit and fire action signage clearly posted?

Do co owners know what to do in the event of a fire or the fire alarm actuating?

Do co owners know what the fire alarm sounds like?

Fire safety documentation available and up to date? (including training and testing records)

THINK

If a fire occurred, would the alarm be raised efficiently?

Would people be able to evacuate or get to a place of refuge easily and quickly?

Would people recognise the sound of the fire alarm?

Where is a fire most likely to occur?

Are the fire extinguishers suitably placed to cover the types of fire risks?
EXAMPLE: A carbon dioxide extinguisher should ideally be placed to cover an electrical risk.

Things to do when you go back to work

- Find your fire safety folder. Your Fire Safety Folder is the natural starting point for fire safety. Use it to record equipment tests, maintenance, staff training, defects etc. It also contains your fire risk assessment and examples of how to audit your premises for fire safety. In short, it's really useful, (and it's also a legal requirement to keep most of the documentation that's in it).
- Check that the contents correspond with the index at the front of the folder.
- Read the fire risk assessment and check the status of the issues raised in the action plan. Have they been addressed? Discuss this with your health and safety co-ordinator.
- Walk around your building and identify any new issues.
- If your building is shared, attempt to liase with the fire warden(s) responsible for other areas and find out where their assembly place is. If possible, agree on one assembly place for all users of the entire building. This may not always be possible in larger buildings. Arrange access to other parts of the building so that you can identify alternative escape routes.
- Do not lose sight of the fact that if a fire should occur or the fire alarm should sound, then all inter-building territorial boundaries must be declared null and void. Occupants will be presented with the greatest chance of survival if all escape routes are available and familiar, and a building alight is essentially a single structure alight with a body of people inside it, nothing more.

REMEMBER

If you get a feeling that something is not safe in a building, but you cannot place why, trust your instincts and follow them until you find that:

1. You find the problem and address it, or
2. You prove yourself wrong, (which is no bad thing, as you are being thorough)

If you are in doubt or feel that you are 'out of your depth', please contact your health and safety co-ordinator, and in the second instance, the responsible person. These facilities are there to help you. You are not expected to be perfect. Dealing with fire safety is a constantly evolving and dynamic task, and nobody ever knows everything. Recognise this fact and that sometimes assistance is needed.