

ACS Risk Group

Fire Awareness, Safety and Management

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The importance of fire safety in the workplace

Our discussion today is to highlight benefits of good fire safety management:

- Why fire safety matters
- Understanding Fire safety Regulations
- Benefits of Good Fire Safety management
- Creating a Safe Workplace
- Best Practice for Fire Safety

Why Fire Safety Matters

Workplace Fire Statistics:

- Fire is one of the most common threats to business
- There are around 22,000 workplace fires every year in the United Kingdom or around 423 every week on average.
- 60% of private businesses never fully recover following a fire.
- The average cost to businesses when they experience a fire in a commercial building is £65,000.
- Many companies cite the expense as a reason for failing to invest in fire security. But the alternative can be far worse.

Why Fire safety Matters

Fire disasters:

- On average **one person dies each day** in fires in the UK
- Bradford City Football Ground 1985 *(56 people died)*
- Kings Cross Underground Station 1987 *(31 people died)*
- Rose Park Care Home 2004 *(14 people died)*
- Lakanal House 2009 *(6 people died)*
- Grenfell Fire 2017 *(72 people died)*
- Beechmere retirement village *(Over 150 people lost their home)*

Dangers associated with fire include:

- Burns
- Smoke and toxic fume inhalation
- Intense heat
- Structural collapse.

- **Under Current Fire Legislation**, those who are responsible for premises, including owners, employers, managers, employees and others occupying non-domestic premises must manage fire safety on those premises.
- **i.e. anyone with control, to any extent, of the premises**

- Under Current Regulations companies/organisations are compelled to nominate a competent person to implement their fire safety plan.
- A ‘competent person’ is defined as someone who has ‘sufficient training , experience or knowledge and other qualities that enable them to assist properly in undertaking fire preventive and protective measures.

What do you have to do?

A Duty is imposed to:

- Take steps to prevent fire
- Mitigate the detrimental effects of a fire on the premises

The Duties

- Carry out a Fire Safety Risk Assessment.
- Identify the fire safety measures required.
- Implement the measures.

Those responsible should:

- take steps to prevent and reduce the impact of fire on the workplace and carry out a fire risk assessment of their workplace
- provide and maintain fire precautions necessary to safeguard anyone using the workplace (including visitors)
- provide information, instruction and training to employees about the fire precautions in the workplace.
- identify the significant findings of the risk assessment and the details of anyone who might be especially at risk in case of fire (these must be recorded if more than five employees)

A little bit of science

The Fire Triangle

To start a fire **THREE** components are needed:

- Source of ignition flame
- Fuel flammable materials
- Oxygen air around us

Need to avoid all three at the same time.

The Fire Triangle

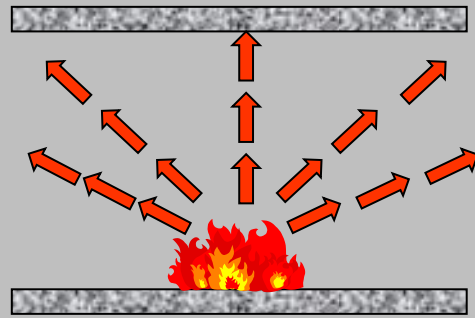
OXYGEN



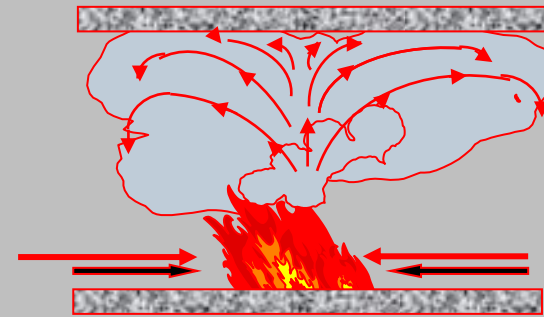
IGNITION

FUEL

How Fire Spreads



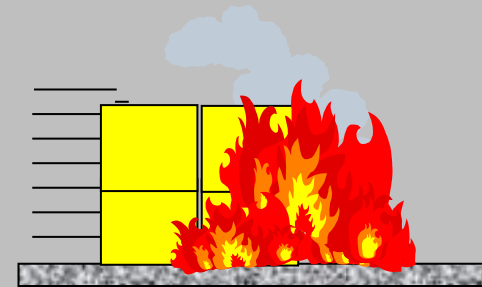
RADIATION



CONVECTION



CONDUCTION



DIRECT BURNING

Risk Control

- You **cannot** take away the oxygen.
- You **can** eliminate the source of ignition.
- You **can** eliminate the fuel.

According to Fire and Rescue statistics from 2019/20

The four most common causes of accidental fires in non-dwelling properties were:

1. Faulty appliances and leads
2. Faulty fuel supply
3. Misuse of equipment or appliances
4. Placing articles too close to heat

Risk Control

AVOID by removing:
sources of ignition, fuel.

CONTROL by:
detection, warning, means of escape, control
(extinguishers, sprinklers..)

Prevention-Fuel

Regularly remove
combustible waste



Prevention Fuel

Electrical and gas equipment cupboards are to be kept free of combustibile materials and secure.



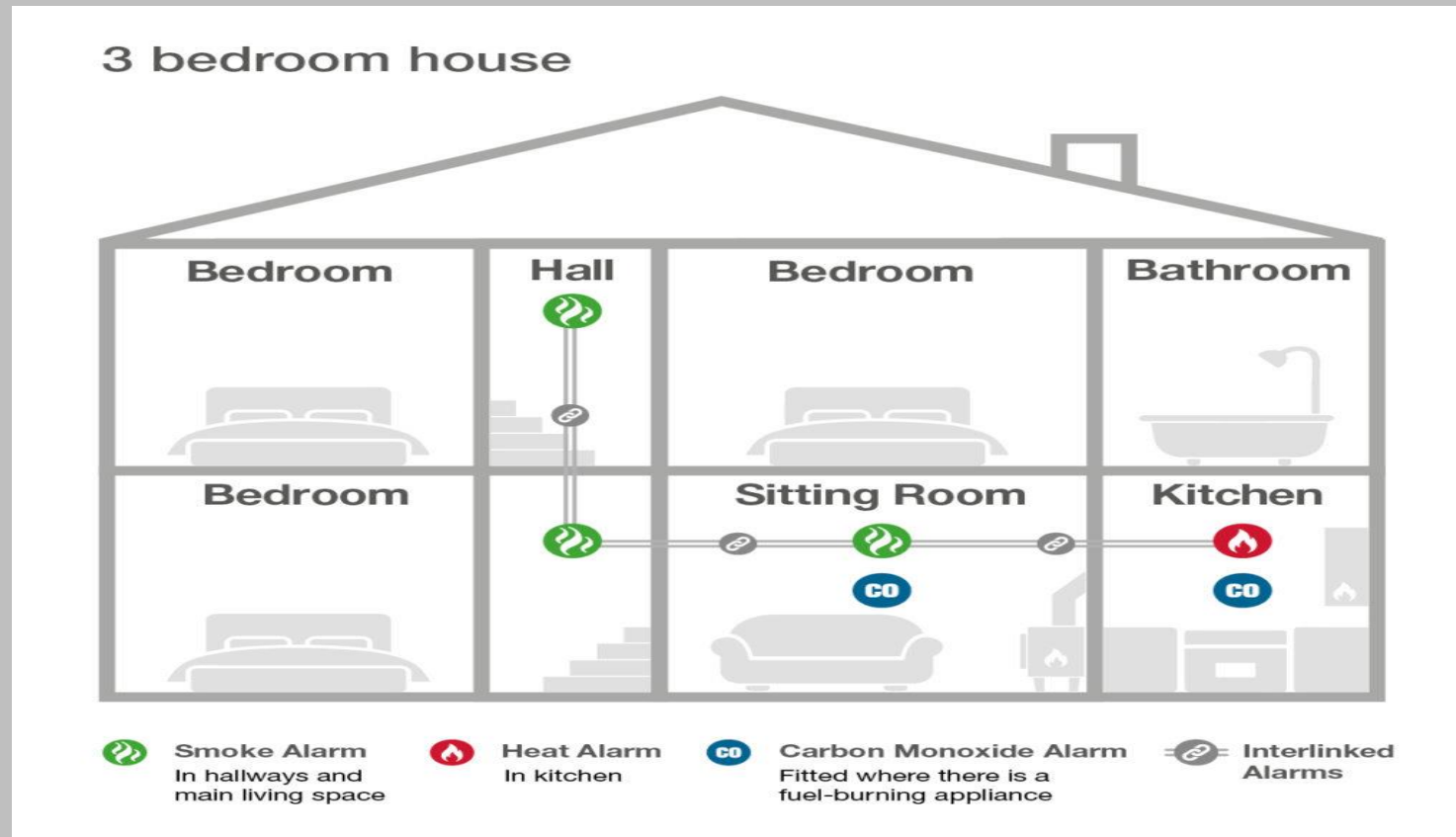
Common Causes

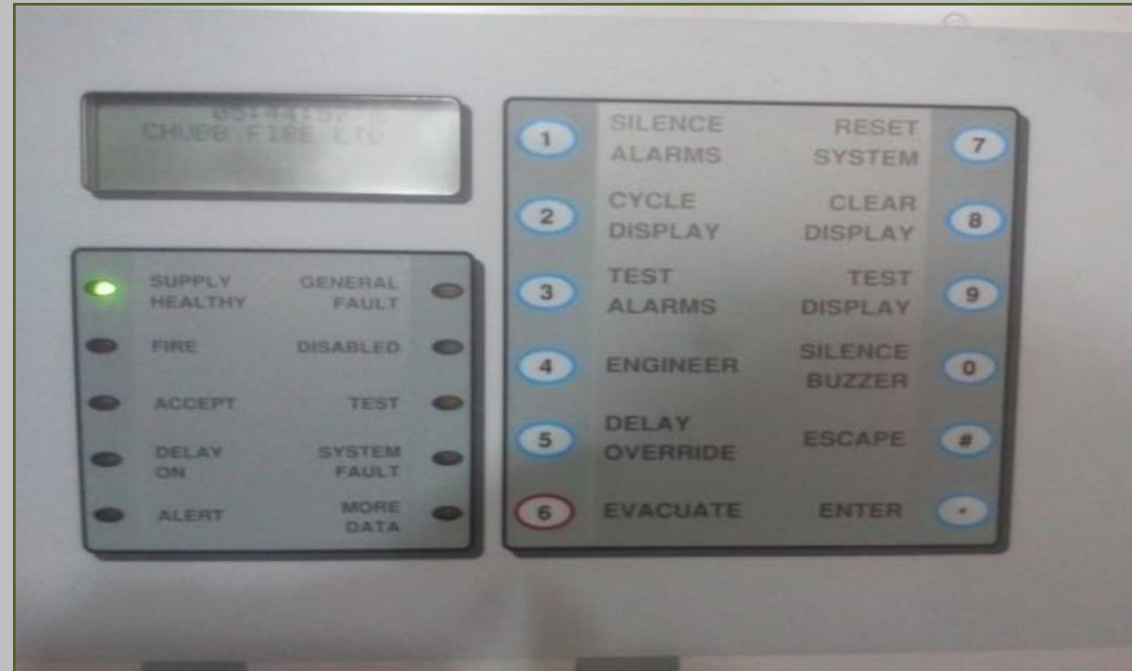
- Hot appliances/surfaces
 - Papers or towels draped near to heaters
 - Oil left on cookers
 - Combustible materials too close to electrical equipment
 - Poor storage and control of combustible materials
- Wilful fire raising: Responsible for 40% fires
 - Deliberate fires
 - Disgruntled ex employee, mentally unstable persons
- Hot works: Contractors
 - Welding, soldering, grinding, cutting

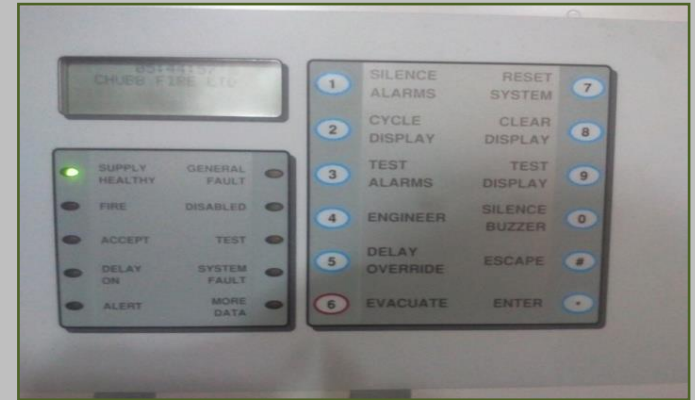
- Faulty electrical systems
 - heat generated from poor connections
 - cable reels not fully wound out
- Overloaded electrical sockets
 - multiple appliances on same socket
- Smoking materials
 - discarded onto fuel source



“New” Fire Regulations







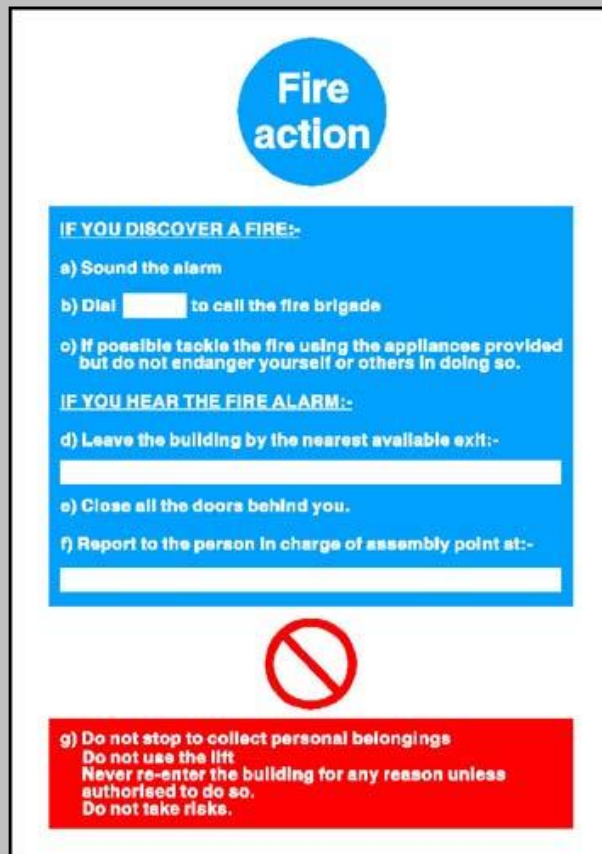
Regular Inspections (3)

Check alarms in place and working

Check alarm panels work

Check contract with fire alarm centre is operational

Evacuation – fire signage



Fire Action sign - Tells those discovering fire or smoke what to do



Evacuation – Fire Doors

- To protect escape routes from the effects of fire so that the occupants can safely reach the final exit
- To protect the contents and/or the structure of a building by limiting the spread of fire



Evacuation – Fire Doors

Regular inspection (5)

- Appropriate doors
- NOT propped open
- Automatic systems working (if installed)
- Doors not damaged and sealing properly

Evacuation – Fire Doors

- If you see smoke coming from behind a door, **NEVER OPEN IT!**
- If a fire is on the other side of a door, opening it will put your life at risk
- Before opening any door in a fire situation, test the doors temperature using the back of your hand



The Fire Warden

- Under UK Legislation every business must appoint a Fire Warden.
- The number will depend on size & complexity of the business.
- General rule is to be able to carry out a “sweep” of the premises and reach safety within 2.5 minutes of hearing the fire alarm.

The Fire Warden

- **To raise awareness of Fire Safety and procedures**
- **To play a leading part in Fire drills**
- **To record daily & weekly checks**
- **To ensure the safe evacuation of people in the event of fire**
- **Liaise with Fire Service and Report any unaccounted persons**

The Fire Warden

In the event of fire:

- **Raise the alarm**
- **Close all fire doors**
- **Ensure vulnerable people are being helped (PEEP)**
- **Ensure everyone has exited the building**
- **Help with roll call (second person to assist)**
- **Liaise with Emergency Services**

The Fire Warden

General Duties

- **Annually** service extinguishers, arrange tests
- **6 Monthly** fire drills
- **Monthly** check emergency lighting
- **Weekly** check fire alarms (different points)
- **Regularly** fire doors, emergency routes, signage

Record of F.S.R.A.

Must record the following if organisation has more than 5 employees:

- **Significant findings;**
- **Fire safety measures and actions to be taken**
- **Persons especially at risk (PEEPs);**
- **Arrangements for planning, organisation, control, monitoring & review.**

Review

Regular *review* of the F.S.R.A.

- Following fire drill
- Significant changes to premises (people, buildings, furniture/fixings)
- Work undertaken affects the FRSA or the fire safety measure

Let's keep in touch!



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 ACS Consultancy