

Mad Hatters

Fire Safety Management Policy

Fire is a chemical reaction caused by a combination of oxygen, fuel and sufficient heat to cause ignition.

It can be 'controlled' such as in the combustion chamber of a boiler, or 'uncontrolled' when provided with unlimited quantities of fuel and oxygen.

The inter relationship between heat, fuel and oxygen controls the development and spread of fire.

It follows therefore, that the fire will extinguish by the removal of any one of these three elements. You can do this by:

- Using water to cool the burning materials
- Excluding oxygen by smothering the fire with an inert gas or a fire blanket
- Removing combustible materials by turning off a valve on the affected fuel line or as fire fighters do when tackling a barn fire, by physically removing unburned hay/straw

It is essential that the following definitions are fully understood in order to prevent the spread of fire and death or injury to building occupants

AUTO IGNITION TEMPERATURE

The temperature at which the heat emitted by the heated material is sufficient to ignite vapours being given off (and sustain combustion)

e.g. cooking oil in a chip pan self igniting when left unattended on a heat source.

BACK DRAUGHT

If the oxygen supply to a fire is restricted growth will be slow. Once the oxygen supply is consumed, the fire will gradually die down, however the heat (ignition sources) generated by the fire will still be present and therefore fuel vapour will continue to be given off. If at this stage oxygen is re introduced the fire will quickly start up again and develop rapidly. If this happens in an enclosed space a phenomenon known as 'back draught' could occur.

A simple illustration of a back draught is when a fire uses up all the available oxygen in a room where all the windows and doors are closed. Opening a door will allow air to rush in, reinstate the correct mixture of fuel vapour and oxygen and bring about rapid re-ignition.

DELAYED DISCOVERY

A fire that starts during working hours, in a confined space, with a restricted oxygen supply, could grow slowly, undetected and reach rapid development stage when the workplace is unoccupied, thereby increasing the damage potential significantly.

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FIRE DAMAGE

Since the longer a fire is allowed to burn the bigger it will get and the more damage it will do, early detection and extinguishing will reduce harm. This can be effectively achieved by automatic detection, preferably smoke alarms, and suppression systems e.g. automatic sprinklers, inert gas or foam installations – all supplemented by portable fire fighting equipment.

FIRE HAZARD

A hazard is something e.g. flammable or explosive materials, machinery and equipment, or an industrial process which generates flammable dusts or vapours or where naked flames or high temperatures are used.

FIRE LOAD

Fire load is the maximum amount of combustible materials available to a fire. The amount of heat released by materials when burning (calorific value) will vary according to the type of material involved in the fire e.g. the calorific value of burning oil is much greater than burning paper.

FIRE POINT

Fire point is the lowest temperature at which a liquid gives off sufficient flammable vapour to sustain combustion after removal of the ignition source.

FIRE PRECAUTIONS

Precautions include legal requirements under specific fire protection legislation, such as Fire Regulations and the Fire Precautions Act 1971.

The precautions are grouped together under two main headings:

- **Fire Prevention** is the concept of preventing outbreaks of fire or reducing the risk of fire spreading and of avoiding danger from fire to persons or property, and
- **Fire Protection** is the design features, systems or equipment in a building, structure or other fire risk, to reduce danger to persons and property by detecting, extinguishing or containing fires.

CLASSIFICATION OF FIRES

Fires can have a number of causes. It is essential to recognise the different types of fire, as the correct treatment for one can prove disastrously wrong for another. Fires are classified as follows:

Class A Fires

These are freely burning fires, fuelled by ordinary combustible materials, such as cloth, wood and paper. Furniture, waste paper baskets, stationary stores, cleaners rooms and waste disposal units are among the danger areas. Cooling by water, water with additive or spray foam are effective ways of extinguishing this type of fire.

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Class B Fire

Fires fuelled by flammable liquids, such as lubricants, spirits, petrol, paints and solvents are Class B fires. Boiler houses and flammable liquid stores are among the danger areas. Tackling with spray foam CO2 or dry powder are effective ways of extinguishing this type of fire.

Class C Fire

Fires involving flammable gases such as hydrogen, propane, butane and LPG should be left to experts, as extinguishers burning gases without cutting off the supply, could lead to an explosion if re-ignition occurs. The most effective method of extinguishing the fire is to cut off the supply, where possible, and subsequently deal with other burning materials (if any) with the appropriate extinguishing agent.

Class D Fire

Fires involving metals, such as aluminium, lithium, magnesium, sodium and potassium should only be dealt with using special extinguishers by specially trained personnel.

Class E Fire

These are fuelled by cooking oils and cooking fats, such as Vegetable oil (Olive Oil, Maize Oil, Sunflower Oil) and Liquefiable Solids (Lard, Butter, Margarine). Tackling with Wet Chemical is the most effective method of extinguishing this type of fire.

Fires Involving Electrical Risks

It is imperative that the power supply is disconnected. The fire can then be dealt with according to the classification it falls into. When the power cannot be isolated and there is a risk of electrical shock, non-conductive extinguishing agents, such as dry powder or CO2 can be used. Ventilating systems, computer rooms, control rooms, switch gear and lift motor rooms are among the danger areas.

All Red Extinguishers

In line with the European Standard BS EN 3, all approved extinguishers are red whatever their content, with icons to show which types of fire they are suitable for. Extinguishers also carry a small coloured area:

- Red for water
- Cream for foam
- Blue for powder
- Black for CO2
- Canary Yellow for wet chemical fire extinguishers

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Eliminating fire hazards from the workplace is clearly the most effective measure that can be taken i.e. if there is no fire hazard – there is no fire risk.

This can be achieved in two ways:

Removal

Remove the particular fire hazard from the workplace, or cease the particular hazardous process or activity.

Substitution

Substitution of the fire hazard with one that is non – hazardous and that will still enable you to carry out the particular process or activity.

Reduction

Reducing the fire risk of the hazard at source is the next effective measure.

Measures that might be possible:

- Substitution with a less hazardous substance e.g. in the case of a flammable liquid one with a higher ‘flashpoint’
- Reducing the quantity used in the process or activity
- Dilution of the hazardous substance or
- By a combination of the above measures

Reduction is clearly less effective than elimination and will enquire monitoring measures to ensure that the reduction measures introduced are maintained e.g. to ensure that flammable substances or hazardous activities are not re – introduced without your knowledge.

The above measures are all PREVENTION measures i.e. they are intended to prevent the fire starting.

Control

Control measures are necessary where it has not been possible to eliminate the fire risk.

Such measures include the following and are listed in order of their effectiveness:

- Provide satisfactory means of escape including exit signs and emergency lighting
- Establishment of safe working practices
- Provide staff with fire routine training and fire evacuation drills
- Introduce use of permit to work systems
- Carry out fire safety audits and routine fire safety checks
- Test and maintain building services including fire safety installations and equipment and
- Control materials stored and used, including disposal of waste products and materials
- Provide automatic fire detection and alarm systems
- Provide portable fire fighting equipment.

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Other measures to consider are

Carry out the process or activity when staffing levels are at their lowest.

Successful fire risk control will probably involve using a combination of ELIMINATION REDUCTION and CONTROL methods. ELIMINATION should always be the primary objective when carrying out fire risk assessments.

Sometimes it is not financially viable to completely eliminate the hazard, or reduce the risk so a balance has to be struck between the level of risk i.e. HIGH NORMAL or LOW and the cost of elimination or reduction. If the risks are very HIGH or the injuries likely to occur are very serious then less weight can be given to the cost of measures needed to avoid these risks.

However where specific legislation creates an 'absolute duty' relating to the control of risks, then we must comply with them.

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Fire Policy

In the unfortunate event of a fire please follow the procedure below.

1. Sound the alarm.
2. Leave the building with the children and registers as calmly and safely as possible.
3. Assemble outside the Nursery at the Fire Assembly Point.
4. Do not enter the building.
5. Check all children are safely assembled – quick head count with the aid of room registers.
6. Staff must remember to take registers with them when evacuating the building.
7. If a fire is found in the building, Manager or Deputy Manager to call the fire brigade.
8. Fire equipment i.e. Fire extinguishers are used only as an aid to escape, if needed, not to tackle the fire. This will be done by the fire brigade.

Below is the procedure used to ensure Mad Hatters are providing a safe environment in regards to fire safety.

9. Fire drills will be held every three months.
10. Staff will be made aware of the routine of fire drills and their procedures at staff meetings.
11. The assembly point of safety is at the front of the Nursery, extra safety of the children is to be observed at all times. If fire is observed the children may be taken to the Shakespeare Dental Practice on Shakespeare drive for safety and telephone parent's or carer's.
12. Staff must be aware that all room registers must be taken when the building is being evacuated.
13. Staff must know that in the case of fire the fire brigade must be called.
14. Staff must be aware that the evacuation of children and staff is of the utmost importance and this must be done calmly and safely.
15. No staff member is to tackle the fire.
16. No one must re enter the building until it is safe to do so.
17. On hearing the fire alarms staff must always follow the evacuation procedure.
18. On entry each morning the rear Fire Exit must be unlocked.