

Fire Hazards: Management Briefing

Fire is a significant risk to any organisation. In order to have a fire you must have all three of the following conditions:

- oxygen = examples: natural sources as well as artificial, oxidizing materials or oxygen
- fuel = examples: flammable liquid (eg paints, varnish, white spirit), adhesives, solvents, cooking oils, flammable substances (eg cleaning, photocopier chemicals), packaging, paper, card, paper (in particular shredded)
- heat (or sources of ignition) = examples: smoking, lights, naked flames, electrical, gas or oil fired heaters, hot works, faulty electrical equipment, hot surfaces, obstruction/lack of ventilation of electrical equipment, self-heating and spontaneous combustion from materials such as oily rags, arson.

Without all three of these elements there can be no fire. Fire extinguishers take away one or more of these three elements, e.g. water extinguishers take away the heat, carbon dioxide extinguishers use gas, which displaces the oxygen.

Recommendations for employers:

- ensure that there is a clear written fire policy, including allocated responsibilities and appropriate employee training in fire prevention and the fire procedures
- reduce or eliminate sources of ignition. Reduce any unnecessary sources of heat, ensure that sources of heat do not arise from faulty or overloaded electrical equipment, control hot works, prohibit smoking, reduce naked flame heating by replacing with electrical heaters or central heating, ensure all equipment that could provide a source of ignition is left in a safe condition and electrical fuses and circuit breakers are of the correct rating, electrical installations are maintained and take precautions against the risk of arson
- reduce the sources of oxygen. Close doors and other sources of ventilation when not required, do not store oxidizing materials near any heat source or flammable materials
- minimise the potential of fuel for the fire. Remove or reduce to a minimum the amount of flammable materials and substances. Replace flammable materials with non or less flammable materials, ensure flammable materials are handled, transported, stored and used properly, do not keep unnecessary quantities
- ensure a fire risk assessment is carried out by a competent person, follow through the actions and review this regularly, particularly where there is an alteration to the building
- where flammable materials are in use, ensure electrical equipment which could be exposed to flammable vapours, gases or dusts is of a suitable explosion protected rating for the risk and is maintained
- carry out weekly tests on your fire alarm using different call points in rotation, carry out six monthly fire drills and record them
- arrange for the fire extinguishers and associated equipment to be maintained annually by a competent person
- appoint fire marshals and ensure that they are trained and comfortable with their role
- ensure other fire safety related equipment and systems including emergency lighting, fire detection and suppression equipment, lightning protection is subject to suitable maintenance and inspection by a competent contractor.

Control methods or risk reduction techniques must be used to:

- provide a clear statement to workers that the risk posed by fire is taken seriously at all levels of the organization
- provide information on policy including implementation and responsibilities
- properly understand what is involved in all areas of operation in order to implement appropriate and effective controls
- monitor the control measures put in place to prevent fires and review to ensure their ongoing effectiveness
- ensure all workers are aware of the hazards and the likely effects
- provide information on the legal framework surrounding fire prevention and the employer/employees duties under them.

Case Law

New Look was fined £400,000 with £136,052 costs following a major fire at their Oxford Street store in 2007, although no one was injured in the fire. Following the fire, the London Fire Brigade inspected and found substantial breaches of legislation including inadequate staff training, an inadequate fire risk assessment and blocked exit routes. When the fire occurred, the alarm was reset and prompt evacuation did not take place.

Legal duties

The main areas of health and safety law relevant to fire safety are:

- the Health and Safety at Work etc Act 1974
- the Management of Health and Safety at Work Regulations 1999
- the Regulatory Reform (Fire Safety) Order 2005
- the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)
- Fire (Scotland) Act 2005, as amended, and the Fire Safety (Scotland) Regulations 2006.

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