



Fire Safety

Module 1



Health & Safety
Essentials

Registered charity number 207890

Introduction and legal framework

Introduction

Fire safety has always been a focus of attention for people at home and at work with considerable damage being caused by fire, smoke and heat with the consequential risk to life. In recent years there have been a number of serious fires in chemical laboratories.

Whilst fatalities and major injuries are more common in domestic premises, the risk to operational continuity for organisations arising from fires in laboratories is significant.

In 2005 the regulatory regime for fire safety underwent a significant change and now requires those responsible for premises to have a fire safety management system in place. The duties placed on employers, employees, visitors or other occupants range from key roles in the emergency response and evacuation, through maintenance activities to simply keeping the workplace tidy and free from combustible materials.

Fire safety management is based on the significant findings from the risk assessment carried out by those responsible for the premises. In common with all modern safety laws, fire risk management is goal based rather than a 'set of rules' so it is important that everyone knows their role.

The legal framework behind fire risk is outlined along with some associated legislation that focuses on the release of 'dangerous substances' that could lead to fire and explosion.

This module explains the under-pinning knowledge of fire safety technology required to appreciate how fire risk management works in practice especially when considering high risk areas such as chemical laboratories.

Finally, a major part of this module is devoted to fire risk management in practice. This will enable you to use the facilities as intended and not unwittingly compromise a fire safety control measure that has been put in place to protect you and everyone else.

Legal framework

The legislation covering fire safety goes back a long way to the first handling of petroleum, construction of buildings and the regulation of factories. It includes:

- Dangerous Substances and Explosive Atmospheres Regulations 2002³ (DSEAR) is the principal legislation applying to the control of substances in the laboratory workplace that can cause fires and explosions in the laboratory. This requires a risk assessment, and consideration of eliminating or reducing the risk 'so far as is reasonably practicable'². Dangerous substances include substances, preparations and dusts with the potential to give rise to fires, explosions and similar energetic (energy releasing) events (such as runaway exothermic reactions) that can affect the safety of laboratory persons and others.
- Regulatory Reform (Fire Safety) Order (2005) in England and Wales and similar legislation is applicable in Scotland and Northern Ireland which, places a duty on those responsible for the premises to carry out a risk assessment followed by implementation and maintenance of risk control measures.

Further information related to Chemical Safety, Dangerous Substances and Explosive Atmospheres is given in the H&S Online Resource Module - **Chemical Safety – Storage, Handling, Use and Transport in the Laboratory**.

