

# **FIRE RISK ASSESSMENT COMPETENCY COUNCIL**

## **Competency Criteria for Fire Risk Assessors**

**Version 1**

**Published : 21/12/11**

## Foreword

Fire safety legislation requires that, for most premises except private dwellings, a fire risk assessment must be carried out to determine the risks to people from fire. The legislation also requires that suitable measures are taken to ensure the safety of people from fire. The appropriate fire precautions are determined by the fire risk assessment.

There is no legislative requirement for the fire risk assessment to be carried out by a competent person. This is to avoid an implication that every duty holder under the legislation needs to employ the services of a fire safety specialist, such as a consultant, to carry out their fire risk assessment.

For small, simple premises, it is often the duty holder that carries out the fire risk assessment. Arguably, in these premises, the duty holder is the best person to do so because of their intimate knowledge of the premises and the activities therein. Guidance to support those wishing to carry out the fire risk assessment themselves has been made available by the Government.

However, for many premises, the duty holder seeks the services of an external consultant ('a fire risk assessor'). In the case of larger, more complex or high risk premises, this is often appropriate, as the task might well be beyond the ability of the duty holder.

Some members of the business community have suggested that it would be helpful for those who want to use the services of a commercial fire risk assessor to be able to access information on those with an appropriate level of competency in fire risk assessment to help them comply with the legislation. There has also been growing concern regarding the competence of those who provide these fire risk assessments on a commercial basis (i.e. for a fee). Data from the English Fire and Rescue Service suggests that the main compliance failure leading to enforcement action is a failure by duty holders to carry out a suitable and sufficient fire risk assessment. This is coupled with the emergence of inadequate fire risk assessments for premises that have suffered multiple fatality fires.

As a result of these concerns, the Fire Risk Assessment Competency Council, which comprises a broad group of relevant stakeholders (listed as participants), emerged from the fire sector with the encouragement of Government. Its objective has been to establish agreed, industry-wide, criteria against which the competence of a fire risk assessor can be judged. It is anticipated that these criteria will be used by professional bodies and third party certification bodies who register or certificate fire risk assessors and, by commercial companies providing fire risk assessment services.

While it is very unlikely that third party certification of this nature will become mandatory under legislation, Government acknowledges the benefits to duty holders of third party certification of fire protection products and services as a means of assisting in compliance with legislation. This includes fire risk assessment services.

This document will be subject to periodic review by the Fire Risk Assessment Competency Council, so that it can be updated to reflect current thinking and experience in the fire safety community.

A sister document 'Fire Risk Assessment - A guide for businesses' has been produced to assist duty holders in assessing whether they can undertake the fire risk assessment in house or whether they should appoint an external contractor who specialises in fire risk assessment.

## Participants

Acknowledgement is given to the following organizations that assisted in the development of this document;

Association of Building Engineers (ABE)  
Association of Fire Consultants (AFC)  
Association for Specialist Fire Protection (AFSP)  
Awarding Body of the Built Environment (ABBE)  
British Approvals for Fire Equipment (BAFE)  
British Fire Consortium (BFC)  
BRE Global Ltd (BRE)  
Chartered Institute of Environmental Health (CIEH)  
Chief Fire Officers' Association (CFOA)  
Chief Fire & Rescue Advisors Unit (CFRAU)  
Confederation of British Industry (CBI)  
Construction Products Association (CPA)  
Department for Communities and Local Government (DCLG)  
Fire Industry Association (FIA)  
Fire Brigades Union (FBU)  
Fire Protection Association (FPA)  
Federation of British Fire Organisations (FOBFO)  
Institution of Fire Engineers (IFE)  
Institute of Fire Prevention Officers (IFPO)  
Institute of Fire Safety Managers (IFSM)  
International Fire Consultants Certification Ltd (IFCC)  
Institute of Occupational Safety & Health (IOSH)  
National Examination Board in Occupational Safety and Health (NEBOSH)  
Passive Fire Protection Federation (PFPF)  
Royal Institute of British Architects (RIBA)  
Royal Institution of Chartered Surveyors (RICS)  
Skills for Justice  
Warrington Certification Ltd (WCL)  
United Kingdom Accreditation Service (UKAS)

## Fire Risk Assessor Competency

A person is regarded as competent where they have sufficient training and experience or knowledge and other qualities to enable them properly to implement their role.

In the case of **simple premises**, where the fire risk assessor might, for example, be an employee of the occupier, it is possible that the following attributes of a fire risk assessor might be sufficient in conjunction with a study of suitable guidance documents. Even in such a simple premises, the fire risk assessor will need:-

- a) An understanding of relevant current best fire safety practices in premises of the type in question;
- b) An awareness of the limitations of the fire risk assessor's own experience and knowledge;
- c) A willingness and ability to supplement existing experience and knowledge, when necessary, by obtaining external help and advice.

**Complex premises** will require a higher level of knowledge, understanding and, preferably, experience on the part of the fire risk assessor. For such premises, there will be a need for the specific applied knowledge and skills of an appropriately qualified specialist. In such cases, evidence of specialist training and experience, or membership of a professional body, or certification by a third party certification body, may assist in demonstrating competence.

In general, other than in the case of simple, low risk premises, fire risk assessors, particularly those offering their services on a commercial basis, need an appropriate knowledge of:

- The assessment of risk from fire (appendix A)
- Applicable Legislation (appendix B)
- Appropriate Guidance (appendix C)
- Behaviour of fire in premises (appendix D)
- Effects of fire on people and behaviour of people in fire situations (appendix E)
- Means of Escape (appendix F)
- Fire Prevention (appendix G)
- Fire Protection (appendix H – includes Passive & Active)
- Management of Fire Safety (appendix I)

Competence does not necessarily depend on the possession of specific qualifications, although such qualifications might contribute to the demonstration of competence.

In the context of the above paragraph, knowledge can be obtained by academic study, training, working alongside others, short courses, continuing professional development or any combination of these.

Education is likely to involve formal education of a relatively academic nature, often culminating in a qualification. Training involves training of a practical nature, often given on the job.

It is not implied that education, training and experience in the principles of fire safety need each be extensive, provided that the combination of each results in adequate knowledge. Moreover, a high level in respect of any one of these might compensate for a lower level in another. It is essential that the level of competence be sufficient to allow the fire risk assessor to identify correctly the significant risks (especially combined risks) and to draw up a list of appropriate actions to address them.

# Definitions

## **Duty holder**

In this document, the term duty holder is used to define where appropriate;

In England and Wales, the responsible person as defined in Article 3 of Regulatory Reform (Fire Safety) Order 2005.

In Scotland, the person on whom duties are imposed under Sections 53-54 of the Fire (Scotland) Act 2005.

In Northern Ireland, the person on whom duties are imposed under Articles 25-26 of the Fire and Rescue Services (Northern Ireland) Order 2006.

## **Fire Hazard**

Source, situation or unsafe act with potential to result in a fire (e.g. an ignition source or an accumulation of waste that could be subject to ignition).

## **Fire Hazard Identification**

Process of recognizing that a fire hazard exists and defining its characteristics.

## **Fire Risk**

combination of likelihood and consequence(s) of fire.

## **Fire Risk Assessment**

overall process of identifying fire hazards and evaluating the risks to the safety of persons in the event of fire, taking account of existing risk controls (or, in the case of a new activity, the proposed risk controls).

## **Fire Protection System, Active**

A system which in the event of fire can function only after its operation has been either manually or automatically initiated.

## **Fire Protection System, Passive**

A system that carries out its function without requiring any manual or automatic initiation of its operation in the event of fire.

## **RSET**

Required Safe Egress Time

## **ASET**

Available Safe Egress Time

## ***Appendix A***

### **The Assessment of Risk from Fire**

It is innate to the process of carrying out a fire risk assessment that there be an assessment of fire risk. A competent fire risk assessor must be able to make a subjective judgement – albeit based largely on objective evidence – of the overall risk to life from fire in the premises for which a fire risk assessment is carried out.

Accordingly, the fire risk assessor should be able to;

- Appreciate generally the concept of risk assessment as it applies to fire.
- Understand the terms “fire hazard” and “fire risk” and appreciate the relationship between the two.
- Within the fire risk assessment, reach a subjective opinion on differing levels of fire risk for the purposes of making comparisons in premises where the fire risk assessment is being carried out.

To enable the fire risk assessor to carry out the above, the fire risk assessor should;

- Be aware of the broad range of methodologies of fire risk assessments available.
- Be able to apply an appropriate methodology of fire risk assessment in respect of the premises to which the fire risk assessment relates.
- Be able to identify fire hazards (both common and process) and the risks associated with those hazards.
- Be able to apply an understanding of fire hazard and fire risk in the premises in context, to make an informed judgement on the appropriate level of fire precautions in the premises where the fire risk assessment is being carried out.
- Be able to express fire risk for the client in such a manner as to provide at least, a broad comparison of the fire risk at different premises within a single estate of properties.

## **Appendix B**

### **Applicable Legislation**

It is not expected that the fire risk assessor will have the skills of a legal expert. However, it is necessary for the fire risk assessor to have a good understanding of the applicability, principles, objectives and intent of the legislation under which the fire risk assessment is carried out, and of any associated legislation

Accordingly, the fire risk assessor should be able to;

- Generally determine the extent to which fire safety arrangements in premises are adequate and whether duty holders comply with the relevant fire safety legislation.
- Identify failures to comply with the specific legislation, particularly those that may lead to the commission of an offence.
- Within the action plan of the fire risk assessment, write a sufficient outline requirement for any measures required to achieve compliance with the relevant legislation.

To enable the fire risk assessor to carry out the above, the fire risk assessor should;

- Be aware of the relevant enforcing authority for the legislation under which the fire risk assessment is carried out.
- Be able to understand and interpret actions of enforcing authorities.
- Be able to interpret the requirements of the enforcing authorities as set out in notices.
- Be aware of the relevant requirements of the legislation in respect of fire risk assessment and the duties the legislation places on various persons.
- Be aware of any specific local acts relating to fire.
- Be aware of the nature of non-compliances that may occur.
- Be aware of the nature of the offences that may be committed.
- Be aware of the guidance that supports the legislation (see Appendix C).
- Be aware of the principles of prevention (as defined in the relevant European Directive).
- Be able to distinguish between the general fire precautions (fire safety measures) required by fire safety legislation and the process fire precautions required by health and safety legislation.

To enable the fire risk assessor to carry out an appropriate risk assessment they must have regard to legislative and regulatory requirements of the country in which the assessment is taking place.

Reference should be made to the following sub appendices:-

Appendix B1 – England and Wales

Appendix B2 – Scotland

Appendix B3 – Northern Ireland

These do not cover every eventuality and a competent assessor should be capable of identifying when other laws or regulations need to be considered.

## Appendix B1 - England and Wales

- Have a good understanding of the Regulatory Reform (Fire Safety) Order 2005 (“the Fire Safety Order”).
- Be aware of which enforcing authority enforces the Fire Safety Order in any premises for which a fire risk assessment is carried out.
- Understand the meaning of the term “Responsible Person” and be able to identify the Responsible Person in premises for which a fire risk assessment is carried out.
- Understand the meaning of “Persons having control of premises” and be able to identify such persons.
- Understand the meaning of the term “Relevant Persons”.
- Understand the meaning of the term “General Fire Precautions”.
- Understand the manner in which the Fire Safety Order applies to premises.
- Be fully aware of the requirements of Article 9 of the Fire Safety Order in respect of risk assessment.
- Understand the relationship between the Fire Safety Order and the Dangerous Substances and Explosive Atmospheres Regulations 2002.
- Understand the relationship between the Fire Safety Order and licensing legislation.
- Understand the relationship between the Fire Safety Order and the Health and Safety at Work etc Act 1974.
- Understand the relationship between the Fire Safety Order and the Housing Acts.
- Understand the meaning of the term “Reasonably Practicable”.
- Understand the concept of proportionality of general fire precautions to risk.
- Understand the distinction between the failure to comply with the requirements of the Fire Safety Order and an offence under the Order.
- Understand the relevant requirements of the Health and Safety (Safety Signs and Signals) Regulations 1996.



## Appendix B2 - Scotland

- Understand the relationship between Part 3 of the Fire (Scotland) Act 2005 (“the Act”) and the Fire Safety (Scotland) Regulations 2006 (“the Regulations”).
- Have a good understanding of the Act and the Regulations.
- Be aware of which enforcing authority enforces the Act and the Regulations in any premises for which a fire risk assessment is carried out.
- Understand the meaning of the term “Employer” and be able to identify the Employer in premises for which a fire risk assessment is carried out.
- Understand the meaning of “Persons having control of premises” and be able to identify such persons.
- Understand the meaning of the term “Relevant Persons”.
- Understand the meaning of the term “Relevant Premises”.
- Understand the meaning of the term “Fire Safety Measures”.
- Understand the manner in which the Act and the Regulations apply to premises.
- Be fully aware of the requirements of Part II of the Regulations in respect of fire risk assessment.
- Understand the relationship between the Act, the Regulations and the Dangerous Substances and Explosive Atmospheres Regulations 2002.
- Understand the relationship between the Act, the Regulations and licensing legislation.
- Understand the relationship between the Act, the Regulations and the Health and Safety at Work etc Act 1974.
- Understand the relationship between the Act, the Regulations and housing legislation.
- Understand the meaning of the term “Reasonably Practicable”.
- Understand the concept of proportionality of fire safety measures to risk.
- Understand the distinction between the failure to comply with the requirements of the Act or the Regulations and an offence under the Act.
- Understand the relevant requirements of the Health and Safety (Safety Signs and Signals) Regulations 1996.

## Appendix B3 - Northern Ireland

- Understand the relationship between Part 3 of the Fire and Rescue Services (Northern Ireland) Order 2006 (“the Order”) and the Fire Safety Regulations (Northern Ireland) 2010 (“the Regulations”).
- Have a good understanding of the Order and the Regulations.
- Be aware of which enforcing authority enforces the Order and the Regulations in any premises for which a fire risk assessment is carried out.
- Understand the meaning of the term “Employer” and be able to identify the Employer in premises for which a fire risk assessment is carried out.
- Understand the meaning of “Persons having control of premises” and be able to identify such persons.
- Understand the meaning of the term “Relevant Persons”.
- Understand the meaning of the term “Relevant Premises”.
- Understand the meaning of the term “Fire Safety Measures”.
- Understand the manner in which the Order and the Regulations apply to premises.
- Be fully aware of the requirements of Part II of the Regulations in respect of fire risk assessment.
- Understand the relationship between the Order, the Regulations and the Dangerous Substances and Explosive Atmospheres Regulations (Northern Ireland) 2003.
- Understand the relationship between the Order, the Regulations and licensing legislation.
- Understand the relationship between the Order, the Regulations and the Health and Safety at Work (Northern Ireland) Order 1978.
- Understand the relationship between the Order, the Regulations and housing legislation.
- Understand the meaning of the term “Reasonably Practicable”.
- Understand the concept of proportionality of fire safety measures to risk.
- Understand the distinction between the failure to comply with the requirements of the Order or the Regulations and an offence under the Order.
- Understand the relevant requirements of the Health and Safety (Safety Signs and Signals) Regulations (Northern Ireland) 1996.

## ***Appendix C***

### **Appropriate guidance**

The fire risk assessor should have knowledge of the suites of guidance produced by the applicable government departments together with other guidance produced by industry, standards making bodies, etc. that apply to the premises on which the fire risk assessment is being undertaken.

Much of this guidance cross references other guidance and it is the duty of the competent fire risk assessor to be able to navigate through these sets of guidance and to maintain their currency as guidance is refreshed and new guidance is produced. This will form part of their formal continual professional development which will need to be evidenced to allow for 3<sup>rd</sup> party certification.

Accordingly the fire risk assessor should be able to;

- Determine the appropriate guidance applicable to the premises to which the fire risk assessment is being carried out, whilst fully appreciating that guidance should not be applied prescriptively.
- Apply such guidance in a proportional manner, keeping in mind the use to which the premises are being put.
- Understand the limitations and/or dangers of applying small parts of different guidance documents (“cherry picking”) as a solution.
- Evidence how they are maintaining their currency in respect of applicable guidance and standards.

## ***Appendix D***

### **Behaviour of fire in buildings**

The behaviour of fire in a building will be determined by a combination of its structural design, construction materials, passive and active fire safety elements, the use to which the building is put, nature and quantity of combustible materials and the standard of management applied.

Active and Passive fire safety is covered in Appendix H and Management of fire safety is covered in Appendix I.

Although the structural performance of the building is not strictly within the remit of a fire risk assessor, as this should have been dealt with when it was built, a fire risk assessor must have regard to this aspect.

Accordingly, the fire risk assessor should be able to;

- Generally determine how fires can start and the how the spread of fire and products of combustion can impact on components of the building .
- Identify failures and/or changes to the building that could change the way a fire and products of combustion travel through the building.

To enable the fire risk assessor to carry out the above, the fire risk assessor should have;

- Knowledge of the principles of combustion (triangle of fire).
- Knowledge of fire growth and how it gets progressively bigger.
- Knowledge of movement of smoke and other products of combustion.
- An awareness of how construction materials behave in a fire.
- An awareness of how different structural designs of buildings behave in a fire.
- An awareness of how fire spread can be inhibited by passive and active fire protection methods (see Appendix H).
- An awareness of how to identify that the subsequent use or alteration of the building can invalidate pre existing fire safety precautions and/or strategies.

## ***Appendix E***

### **Effects of fire on people and behaviour of people in fire situations**

It is not expected that the fire risk assessor will have the skills of a behavioural psychologist. However, whilst most other aspects of fire safety are concerned with physical or system based issues, understanding human behaviour in the event of a fire is an essential part of the knowledge of a fire risk assessor's role.

Accordingly, the fire risk assessor should be able to;

- Anticipate the way people will generally behave in fire situations.
- Identify potential problems arising from the likely behaviour of people in the premises for which a fire risk assessment is being carried out.
- Within the action plan of the fire risk assessment, taking account of the likely behaviour of people in the premises in the event of fire, make recommendations for managerial or other measures considered necessary..

To enable the fire risk assessor to carry out the above, the fire risk assessor should;

- Be aware of hazards to people from fire, namely loss of visibility, elevated temperature, toxic gases and oxygen depletion.
- Be aware of current professional thinking and practical guidance on human behaviour in fire, including case studies.
- Be able to anticipate the likely behaviour of people in fire for those premises being assessed.
- Be aware of the effect of splitting of family groups.
- Be aware of the likely response of people to discovery of a fire.
- Be aware of the likely response of people to a fire alarm signal.
- Understand the effect of frequent false alarms on willingness to evacuate.
- Understand the importance of the actions of those in charge at the time of a fire.
- Understand the importance of staff training and the influence of training and drills on occupant behaviour in the event of fire.
- Understand the importance of a structured emergency plan.
- Understand the effect of different cultures on fire and evacuation behaviour.
- Understand the effect of escape route design on evacuation behaviour, including the tendency to use familiar egress routes.

## ***Appendix F***

### **Means of Escape**

The proper provision of means of escape is an essential part of fire safety measures in all premises. A fire risk assessor must have regard to this important aspect.

Accordingly, the fire risk assessor should be able to;

- Understand the means of escape strategies for different types and occupancy of premises.
- Understand the principles of fire related emergency planning and evacuation.
- Understand the implications of how different needs of people can affect the selection of the appropriate means of escape.

To enable the fire risk assessor to carry out the above, the fire risk assessor should;

- Understand that all persons within the premises should be able to reach a place of ultimate safety before life-threatening conditions arise; either unaided or with the assistance of staff - without FRS assistance. (RSET versus ASET)
- Understand that any emergency plan should be compatible with the normal every-day use of the premises.
- Understand the principles relating to alternative escape routes, dead ends and single direction of escape.
- Understand the principles relating to horizontal and vertical escape.
- Understand the principles relating to travel distances and travel times.
- Understand the principles relating to provision of adequate number(s) and dimensions of routes and exits.
- Understand the principles relating to appropriate use of door releases and other escape devices.
- Understand the principles relating to protected escape routes.
- Understand the principles relating to relative and ultimate places of safety.
- Understand the principles relating to means of escape other than stairs.
- Understand the relationship between fire detection systems and means of escape.
- Have an awareness of how smoke control systems can assist means of escape.
- Have an awareness of the provisions for, and maintenance of, evacuation signage.
- Have an awareness of the provisions for, and maintenance of, emergency lighting.
- Have an awareness of procedures and methods of assisted evacuation including the need for the training of staff in the emergency procedures and use of such equipment.

## **Appendix G**

### **Fire Prevention**

Fire Prevention should be regarded as a vital part of fire safety and is an important part of any assessment. The law requires that one takes appropriate steps to reduce the likelihood of fire and of the spread of fire on the premises and to mitigate the effects of any fire that occurs.

Accordingly, the fire risk assessor should be able to;

- Understand and apply the appropriate principles of prevention.
- Identify and have an understanding of the different types of hazard.
- Evaluate the risk, and consider the appropriate method of managing the risk.

To enable the fire risk assessor to carry out the above, the fire risk assessor should;

- Understand the term 'as low as reasonably practicable' (ALARP).
- Understand how ALARP should be applied proportionately to the risk in the premises.
- Understand that removal of the hazard should be the first step in fire prevention.
- Understand if the hazard cannot be removed the next step is to reduce the risk.
- Understand that if the risk cannot be reduced to an acceptable level then appropriate protective measures will need to be implemented.
- Understand the need to maintain the measures undertaken above, especially when changes are made to the use, structure or layout of the premises.

# Appendix H

## Fire Protection

It is not expected that a fire risk assessor will carry out any engineering evaluation or examination of detailed design of passive or active fire protection systems or equipment, but such systems and equipment should be considered in terms of their suitability for the premises, and requirements in respect of appropriate maintenance and necessary testing.

A competent fire risk assessor must have the ability to identify correctly the passive and active elements of fire protection/design and their role in the provision of fire safety in the premises. This will include how they may interact e.g. if the fire alarm system triggers a door release mechanism to release held open doors to the closed position.

The sub-appendices below identify the elements that should be used to evaluate the competence of fire risk assessors.

Accordingly the fire risk assessor should be able to:

1. Determine the need for fire protection systems and equipment;
2. Identify any major failings in the level of passive and/or active fire protection provided by existing systems and equipment from documentation, by observation and, where necessary inspection of measures that are not immediately visible;
3. Write a brief outline requirement for new or upgraded systems and equipment, within the action plan of the fire risk assessment
4. Demonstrate an ability to correctly identify the purpose, function and suitability of passive or active elements of fire protection/design.
5. Understand the availability and value of third party certification schemes for persons, systems and products.

To enable the fire risk assessor to carry out an appropriate risk assessment they must have regard to the passive and active systems installed within the premises and any necessary interaction between the two.

Reference should be made to the following sub appendices:-

Appendix H1 – **Passive fire protection**

Appendix H2 – **Active fire protection**



## Appendix H1 – Passive fire protection

The fire risk assessor should have a knowledge and understanding of the role in the provision of fire safety, including the types of fire performance requirements (load bearing capacity, integrity, insulation, reaction to fire performance etc.) of the following:-

### Fire protection to structural frame

- The significance of any immediately visible damage.

### Fire resisting walls, floors and ceilings forming escape routes

- Their location in the building.
- The need to maintain the fire resistance:
  - of and above any suspended ceilings.
  - below any raised floors.
  - where they are penetrated by services (cables, pipes, ducts etc.).

### Cavity barriers

- Their location in the building.
- Their importance in particular types of premises construction.

### Fire-resisting glazing

- Its location in the building.
- Types of fire resisting glazing and relevant limitations in the use of non-insulating types.
- The significance of any immediately visible damage and the need to repair it.

### Fire doors and furniture

- The importance of correct fitting of the door in the frame including door gaps.
- The importance of suitable fire rated ironmongery e.g. self-closing devices, latches etc..
- The need for appropriate intumescent protection:
  - around the periphery of the door leaf.
  - to ironmongery.
  - to glazing.
- The provision and condition of any smoke seals.
- The ability to self-close.
- The ability of any door retention device to release e.g. on the operation of any fire alarm/detection system (from documented maintenance records/checks).
- The assistance of any third party labelling in ascertaining the above.
- The limitations on techniques for upgrading fire door performance e.g. using intumescent coatings, self-adhesive intumescent strips etc..

### Fire-resisting dampers (mechanical or intumescent)

- Their location in the building.
- Their operation (from maintenance records).
- Their operation as part of any smoke control system (from maintenance records/checks).

### Fire-resisting ductwork

- Its location in the building.
- The need to maintain the fire resistance where it penetrates compartment and/or fire resisting walls/floors by the use of suitable penetration seals.

### Fire-resisting service ducts and shafts

- Their location.

### **Fire fighting shafts and stairwells**

- Their location in the building.

### **Penetration seals for pipes, cables and other services**

- Their location in the building.
- Their visible condition including the use of unsuitable repairs.
- The use of sealing systems not supported by test evidence relevant to the end use of the product.

### **The building envelope, e.g. fire-resisting external walls, curtain walls**

- The significance of their role in protecting external escape routes at boundaries.
- The significance of any immediately visible damage.
- The importance of remedying any immediately visible damage in sandwich panel constructions using combustible insulating cores.

### **Wall and ceiling linings in escape routes**

- The significance of extensive over painting.
- The significance of large quantities of combustible items (notice boards, notices etc.).

## Appendix H2 – Active fire protection

The fire risk assessor should;

### **For Fire Detection and Alarm (FD&A) Systems and Voice Alarm Systems:**

- Be able to determine the appropriate category of FD&A system to match the risks for a (non domestic or domestic) premises.
- Be able to determine the circumstances where a Voice Alarm system is appropriate for the risks.
- Understand how FD&A systems interlink with other systems and equipment.
- Understand the need for door release mechanisms to fail safe and the need for ancillary equipment.
- Understand the circumstances in which there is a need for a connection to an alarm receiving centre.
- Be aware of the importance of avoiding false alarms, and have an awareness of elementary measures for their avoidance.
- Be aware of available adaptations to FD&A systems for deaf and hard of hearing people.
- Understand how phased evacuation and staged alarm systems interact.
- Be aware of the basic requirements for siting manual call points.
- Understand the common types of detectors and their limitations.
- Understand the common alarm devices and their limitations.
- Be aware of situations in which cables should be fire resisting.
- Be aware of the need for zone plans and their value to the Fire and Rescue Service.
- Be aware of the certificates that should be issued by “Competent Persons” and key points contained in them.
- Understand the appropriate frequency and nature of routine testing and maintenance.

### **For Emergency Voice Communication systems (EVC):**

- Understand the need for, and purpose of, EVC systems.
- Be aware of the main components and their locations.
- Understand the appropriate frequency and nature of routine testing and maintenance.

### **For Emergency Escape Lighting (EEL):**

- Be aware of the common forms of EEL system, their principles of operation (i.e. self contained and central systems) and modes of operation (maintained & non maintained).
- Be aware of limitations in the use of standby generators.
- Understand situations where maintained EEL is necessary.
- Be aware of the basic requirements for positioning of luminaires and understand the meaning of “Point of Emphasis”.
- Be aware of the relationship between EEL and signs.
- Be aware of the certificates that should be issued by “Competent Persons” and key points contained in them.
- Understand the appropriate frequency and nature of routine testing and maintenance.

### **For First Aid Fire Fighting Equipment:**

- Have an understanding of the situations in which fire fighting equipment are necessary.
- Have an understanding of the different fire extinguishing agents, their applications and limitations.
- Have an understanding of the different roles of portable fire fighting equipment and hose reels.
- Be aware of the basic requirements for selection, provision and siting of fire fighting equipment.

- Understand the appropriate frequency and nature of routine inspection and maintenance.

**For Fire Suppression systems:**

- Be aware of the common forms of fire suppression systems and their principles of operation.
- Be aware of the situations where an automatic fire suppression system is necessary for compliance with legislation or for life safety purposes.
- Be aware of the basic guidance for siting of devices such as sprinkler heads.
- Be aware of the certificates that should be issued by “Competent Persons” and key points contained in them.
- Understand the appropriate frequency and nature of routine testing and maintenance.

**For Smoke Control systems:**

- Understand the different types and roles of smoke control systems that may be found in premises and their principles of operation.
- Be aware of the situations where a smoke control system is necessary for compliance with legislation or life safety.
- Be aware of the certificates that should be issued by ‘Competent Persons’ and key points contained in them.
- Understand the appropriate frequency and nature of routine testing and maintenance.

**For Access and Facilities for the Fire and Rescue Service:**

- Understand the types of, and need for, access and facilities for the Fire and Rescue Service.
- Understand the appropriate frequency and nature of routine testing and maintenance.

## ***Appendix I***

### **Management of Fire Safety**

Management of Fire Safety is a wide ranging subject and can include all those matters covered in the previous appendices (A to H inclusive).

Accordingly, the fire risk assessor should be able to;

- Demonstrate a knowledge and understanding of the principles and practices of Management of Fire Safety.
- Understand how they relate to the protection of life of persons within and around premises.
- Assess the management capabilities and controls in place, balanced against and pertinent to, the occupation and purpose of the premises.
- Give clear and appropriate advice to the duty holder.

To enable the fire risk assessor to carry out the above, the fire risk assessor should have an appropriate knowledge and understanding of;

- Available resources and status of responsibility of the person responsible for management of fire safety.
- Staffing levels (staff-occupant ratio).
- Fire training – including fire drills and responsibility levels in event of a fire.
- Emergency and evacuation procedures (including existing emergency plan, its compatibility with ordinary every day use of the premises and its provisions for disabled persons).
- Signs and signage.
- Work control – contractors and similar (Permit systems etc.).
- Communications procedures (alerting to fire, internal communication etc.).
- Maintenance and testing of fire safety systems and record keeping.
- Degraded systems planning.
- Abnormal occupancy planning.
- Fire load management.
- Monitoring of special or unusual hazards.
- The documentation required by legislation.

In addition the fire risk assessor should have a knowledge of the issues relating to people especially at risk and the appropriate types of evacuation strategies, including;

- The presence of and an awareness of how mobility and other disability limitations can affect the evacuation strategy of the premises.
- The presence of and an awareness of how children and the very elderly can affect the evacuation strategy of the premises.
- The presence of and an awareness of how people asleep or otherwise unable to escape quickly or unaided can affect the evacuation strategy of the premises.
- An awareness of the different lone workers, isolated workers.
- An awareness of personal emergency evacuation plans (PEEPs).
- An understanding of the different types of evacuation strategies including simultaneous evacuation, phased evacuation, progressive horizontal evacuation, zoned evacuation.