

Fire Safety Risk Assessment

Fire risk assessment is an organised look at what, in your work activities and workplace, could cause harm to people from fire. It will help determine the chances of a fire occurring and the dangers from fire that the workplace poses for the people who use it.

Its purpose is to determine whether existing fire precautions are adequate and reasonable relative to the overall risks presented or if it requires reduction via control measures.

The phrase '**Fire Risk**' can be defined as the **Likelihood** of a fire occurring multiplied by the **Severity** of the fire i.e. the 'harm potential' and consequences in terms of loss of life, fire spread, damage etc

The **harm potential** from a fire hazard depends on the potential for development of a fire originating from the hazard and then the potential consequences in terms of life and/or property loss.

Determining the potential for harm requires the assessor to make a judgement on the possible outcome of the hazard.

The potential for ignition is the first consideration, but thought must also be given to the number of times the situation could occur and the factors that could cause it to occur, e.g. the competence of people involved, environmental conditions and the condition of equipment.

The potential for development will be affected by a number of factors not least the length of time the fire could burn before it is detected and how long before the fire threatens the means of escape.

Factors such as building construction (combustible materials and/or lack of compartmentation) and contents (combustible and/or flammable materials which will provide fuel) will also impact on this.

A fire risk assessment must fulfil a number of criteria as follows:

- Be a suitable and sufficient assessment of the fire risk;
- Include significant findings and measures to reduce and manage the risk from fire;
- Identify any group of persons especially at risk;
- Be a written record (when there are five or more employees);
- Be reviewed regularly to meet changes in the premises, technical and organisational measures, work processes and routines etc.

The risk assessment process consists of five steps.

- **Step 1** – Identify the fire hazards within your premises
- **Step 2** – Identify the people at risk
- **Step 3** – Evaluate and decide if the existing fire safety arrangements are satisfactory or need improving
- **Step 4** – Record the findings, produce an emergency plan, instruct, inform and train
- **Step 5** – Arrange to regularly review the assessment

The five steps are described in more detail below, however you should note that this is a basic outline and the responsible person must ensure they refer to the detailed fire risk assessment procedures contained within the premises specific guides produced by the Department for Communities and Local Government referred to on pages 2 and 3 of this document.

Information on the various types of fire risk assessment form available can be found under Step 4 on page 15.

Step 1 – Identify the fire hazards within your premises

You need to identify:

- sources of ignition such as naked flames, heaters or some commercial processes;
- sources of fuel such as waste products, display materials, textiles or overstocked products; and
- sources of oxygen such as air conditioning systems or medical or commercial oxygen supplies.

You must also consider structural features such as ducts and flues; unstopped holes cut into fire walls; large areas of combustible materials; open roof spaces; excessively long escape routes etc.

Step 2 – Identify the people at risk

You will need to identify those people who may be especially at risk such as:

- Anyone who may be asleep on the premises;
- Those present in large numbers;
- Those who are unfamiliar with the layout;
- Those exposed to a specific fire risk;
- Those who have impaired sight, hearing, mobility or any other disability;
- People working near to fire dangers;
- People working alone or in remote or isolated areas (e.g. roof spaces or storerooms);

- Children or parents with babies;
- The elderly or infirm;
- Any people unable to react quickly;
- External contractors, agency and temporary staff.

Step 3 – Evaluate and decide if the existing fire safety arrangements are satisfactory or need improving

This is done as follows:

(1) Determine the risk of a fire occurring

Taking into account the fire prevention measures observed at the time of this risk assessment, it is considered that the hazard from fire (probability of ignition) at this building is:

Low Medium High

Definition of terms

- **Low**
Hardly any risk from fire, few combustible materials, no highly flammable substances, and virtually no sources of heat.
- **Medium**
There are quantities of combustible materials and sources of heat but a fire would remain confined or spread slowly.
- **High**
A serious risk to life from fire, substantial quantities of combustible materials, highly flammable substances, or likelihood of the rapid spread of fire, heat or smoke.

(2) Determine the potential consequences if a fire was to occur

Taking into account the nature of the building and the occupants, as well as the fire protection and procedural arrangements observed at the time of this risk assessment, it is considered that the consequences for life safety in the event of fire would be:

Slight harm Moderate harm Extreme harm

Definition of terms:

- **Slight harm** – Outbreak of fire unlikely to result in serious injury or death of any occupant.
- **Moderate harm** – Outbreak of fire could result in injury of one or more occupants, but it is unlikely to involve multiple fatalities.
- **Extreme harm** – Significant potential for serious injury or death of one or more occupants.

NB! When deciding the level of harm you must consider occupants sleeping on the premises

(3) Determine the risk rating

Using the results from **(1)** and **(2)** above use the table below to determine the risk rating.

Potential consequences if a fire was to occur ►	Slight harm	Moderate harm	Extreme harm
Risk of a fire occurring ▼			
Low	Trivial risk	Tolerable risk	Moderate risk
Medium	Tolerable risk	Moderate risk	Substantial risk
High	Moderate risk	Substantial risk	Intolerable risk

Accordingly, it is considered that the risk to life from fire at this building is:

Trivial Tolerable Moderate Substantial Intolerable

(4) Determine the Action level and timescale

Using the risk rating from (3) use the table below to determine the action level and timescale.

Risk Level	Action required and timescale
Trivial	No action is required and no detailed records need be kept, however the situation should be monitored regularly.
Tolerable	No major additional controls required, however the situation requires ongoing monitoring and there may be a need for consideration of improvements that involve minor or limited cost.
Moderate	It is essential that efforts be made to reduce the risk. Risk reduction measures should be implemented within a defined time period and ongoing monitoring is required. NOTE!! Where moderate risk is associated with consequences that constitute extreme harm, further assessment may be required to establish more precisely the likelihood of harm as a basis for determining the priority for improved control measures.
Substantial	Considerable resources may have to be allocated to reduce the risk. If the building is unoccupied, it should not be occupied until the risk has been reduced. If the building is occupied, urgent action should be taken.
Intolerable	Building (or relevant area) should not be occupied until the risk is reduced.

Step 3 continued – Remove and Mitigate the Risk

If the existing fire safety measures are assessed as inadequate action must be taken to remove or reduce any fire hazards where possible in order to reduce the risks identified. For example:

- Replace highly flammable materials with less flammable ones;
- Make sure you separate flammable materials from sources of ignition;
- Ensure the smoking ban is enforced;
- Reduce evacuation times and escape route lengths
- Provide additional escape routes
- Install additional fire alarm call points
- Improve fire signage
- Consider installing active fire fighting systems e.g. sprinklers
- Appoint fire wardens
- Increase programmes of fire safety training

Step 4 – Record the findings, produce an Emergency Plan, instruct, inform and train

In this step you must record, plan, instruct, inform and train. You will need to record the fire hazards identified in step 1 and the people at risk identified in step 2. You must also record the action you took under step 3.

This information must be recorded using the corporate fire safety risk assessment form appropriate for your premises. The following are available:

- [Offices](#)
- [Educational Premises](#)
- [Sleeping Accommodation](#)
- [Residential Care Premises](#)
- [Small and Medium Place of Assembly](#)
- [Large Places of Assembly](#)

Contact the Safety Section on (020) 8545 3384 for advice if you are carrying out a fire risk assessment for premises that do not fall under any of the above. You will also need to make an emergency plan, tailored to your premises.

It should include the action that you need to take in a fire in your premises or any premises nearby.

Please see section below for details on emergency plans.

You will need to give employees and others enough information, instruction and training about fire risks in the premises and the fire safety procedures to mitigate those risks. Some, such as fire marshals, will require more thorough training.

Step 5 – Arrange to regularly review the assessment

You must make sure the fire-risk assessment is up to date and valid. You will need to re-examine your fire-risk assessment if you suspect it is no longer valid, such as after a near miss and every time there is a significant change to the level of risk in your premises. Other factors affecting the frequency of review may include:

- Type, layout and nature of the premises;
- Type and number of people using the premises;
- Type, location, layout of plant and equipment
- Changes to the premises, people, plant and equipment;
- Materials stored on site
- Increase in the quantity of materials stored on site;
- Storage of new materials;
- Processes and procedures carried out on site;
- Changes in shift patterns particularly new night shifts.

Common pitfalls in the fire risk assessment process

As with any assessment process there are common pitfalls to be avoided.

These include:

- Carrying out a risk assessment in retrospect in an attempt to justify a decision that has already been made;
- Using a generic assessment when a site-specific assessment is needed;
- Carrying out risk assessment using inappropriate practices;
- Not involving a team of people in the process. A team approach to risk assessment should be adopted whenever possible. Pooling the knowledge, skills, expertise and experience of a range of people with different perspectives should ensure comprehensive coverage of all fire hazards;
- Failure to identify all hazards;
- Failure to consider all possible outcomes;
- Failure to consider the hierarchy of controls;
- Failure to implement control measures;
- Not doing anything with the results of the risk assessment e.g. failure to implement control measures;
- Failing to pass on the results of the risk assessment to those covered by it.