

S12 – Fire Safety Risk Assessment H&SFS01

Risk ratings

The following risk ratings are based on two factors:

- The overall fire risk rating for the site
- The risk rating for the individual recommendations /control measures

For certain operations it may never be possible to reduce the overall risk rating for a site as the activities incorporate significant fire risk.

The overall fire risk rating for the site

Fire hazard \ Potential consequence of fire	Slight harm	Moderate harm	Extreme harm		
	Low	Trivial risk	Tolerable risk	Moderate risk	Trivial
Medium	Tolerable risk	Moderate risk	Substantial risk	Tolerable	No major additional controls required. However there may be a need for improvements that involve minor or limited cost
High	Moderate risk	Substantial risk	Intolerable risk	Moderate	It is essential that efforts are made to reduce the risk. Some resources are required to reduce the site risk.
				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 areas) should not be occupied until the risk is reduced.

Fire Hazard		Current rating
Fire hazard low	No obvious hazards associated with fire	
Fire hazard medium	Some flammable substances and sources of ignition are present	
Fire hazard high	A significant number of flammable substances and ignition sources are present	
Potential Consequences of Fire		Current rating
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	

Rating with controls
Rating with controls

Current rating	
Overall fire risk rating	

Rating with controls	



Fire Safety Introduction

This report has been completed on (date).

The following legislation applies:

- REGULATORY REFORM (FIRE SAFETY) ORDER 2005

Fire safety responsibilities

There are some key fire safety duties that need to be complied with:

- Develop an emergency plan;
- Carry out any of the preventive and protective measures identified in the assessment;
- Provide all site personnel with clear and relevant information about risks identified by the fire risk assessment, about the measures taken to prevent fires, and how these measures will protect them if a fire breaks out;
- Co-operate and co-ordinate with contractors and other responsible persons who also have employees or premises in the building, and inform them of any significant risks identified and how they will be reduced/controlled;
- Establish a suitable means of contacting the emergency services and provide them with any relevant information about dangerous substances;
- Provide appropriate information, instruction and training to employees;
- Ensure that the premises and any equipment provided in connection with fire fighting, fire detection and warning, or emergency routes and exits, are suitably maintained.

Employees must co-operate to ensure the workplace is safe from fire and its effects, and must not do anything that will place themselves or other people at risk.

Site Specific Assessment

Responsibility of premises

Who is the responsible person for these premises?

What is their official job title?

Are they the landland or the tenant?

What is their contact telephone number?

General description of the premises and arrangements

.....
.....

Good practice seen

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.....



Control Measures

Categories

Category	Result	Number of current report	Number of previous report
A	Major non-compliance
B	Minor non-compliance
C	Observation
	Total

Category	Description
A	Major: a non-compliance that may result in enforcement action due to breeches with health and safety legislation.
B	Minor: a non-compliance that is unlikely to result in enforcement action but highlights a failure within any health and safety management system.
C	Observation: a deviation from good practice which will not result in enforcement action but may improve current health and safety practices.

General

Issue	Current risk rating	Control measures	Tick & initial when complete
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.....
.....
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.....
.....

Review

Review date..... Signature



Assessment Checklist/Detail

Occupancy and layout

- Times the premises are in use
- Total number of employees who work within these premises at any one time
- Total number of persons who may be on the premises at any one time
- Number of floors on the premises
- Number of stairs on the premises
- Number of lifts
- Number of other companies sharing the premises

Identify the Hazards

Identifying sources of ignition

- Are there any sources of heat which could ignite materials in the workplace? Yes No
- If yes, please list
- Is there any indication of near misses such as scorch marks or any other sign that a fire has occurred? Yes No

Identifying sources of fuel

- Are there any flammable chemicals/liquids/gases? Yes No
- If yes, please specify
- Is wood, paper or cardboard stored on the premises? Yes No
- If yes, please specify
- Is plastic, foam or rubber stored on the premises? Yes No
- If yes, please specify
- Are any furniture or textiles stored or used on the premises? Yes No
- If yes, please specify
- Is waste material stored within the premises? Yes No
- If yes, please specify
- Does the fabric of the building pose a fire risk? Yes No
- If yes, please specify



Identifying sources of oxygen

Is there natural airflow through windows? Yes No

Is mechanical air conditioning system being used? Yes No

Are any oxidising chemicals held on the premises? Yes No

If yes, please specify

Is there any other means of oxygen through piped systems or cylinders? Yes No

If yes, please specify

Identify Who May Be Harmed

Identifying who may be harmed by the hazard

Could employees be harmed? Yes No

Could contractors be harmed? Yes No

Could visitors be harmed? Yes No

Could trespassers be harmed? Yes No

Are children present on the premises at any time? Yes No

Current Control Measures

Fire fighting & detection

Are the premises equipped with automatic fire detection equipment? Yes No

If no, please state other detection method

Is there suitable coverage of smoke detection within the premises? Yes No

Is there sufficient coverage of manual call points (ie break glass) within the premises? Yes No

If no, please specify areas

Is six monthly servicing of the automatic fire detection system undertaken by a competent person? Yes No

Is automatic fire fighting equipment installed on the premises and subject to periodic servicing by a competent person? Yes No

Is non-automatic fire fighting equipment readily accessible, simple to use, and identified by suitable signage? Yes No

If yes, please specify equipment



Does a competent person check the non-automatic fire fighting equipment on a periodic basis? Yes No

Are the fire fighting measures appropriate for the nature of the activities and the size of the undertaking? Yes No

If no, please specify alternative measures and see recommendations

Emergency routes & exits

Is there is a system in place for ensuring that emergency exits are kept clear at all times? Yes No

Do all escape routes lead to a place of safety? Yes No

Are all fire doors suitable and open in the direction of the fire exit? Yes No

If no, please specify areas

Are all fire exit doors fitted with mandatory 'fire door – keep shut' signs and fitted with self-closing devices? Yes No

Are emergency escape routes and exits accompanied by suitable signage? Yes No

Have the escape routes and exits sufficient coverage of emergency lighting? Yes No

If no, please specify areas

Is the emergency lighting serviced every six months by a competent person? Yes No

Fire drills & tests

Is monthly testing of the fire alarm system undertaken and recorded in the fire log book? Yes No

Are fire drills performed at least once per annum? Yes No

Is the time of the fire drill monitored and evacuation targets set? Yes No

Are the names of employees and non-employees checked during the evacuation process? Yes No

Is there an assembly point situated away from buildings? Yes No

Information, instruction & training

Are all employees and non-employees given relevant information on the fire safety procedure for these premises? Yes No

Is the fire safety procedure available to employees and visitors? Yes No

Has a fire safety plan/drawing been formulated and displayed accordingly? Yes No

Have employees received fire safety training including the use of non-automatic fire fighting equipment and is it conducted on a regular basis? Yes No

Are trained and competent fire wardens available? Yes No



The emergency plan

The emergency plan should provide clear instructions on:

- The action employees should take if they discover a fire;
- How people will be warned if there is a fire;
- How the evacuation of the workplace should be carried out;
- Where people should assemble after they have left the workplace, and procedures for checking whether the workplace has been evacuated;
- The key escape routes, how people can gain access to them, and escape from them to places of safety;
- The fire-fighting equipment provided;
- The duties and identity of employees who have specific responsibilities in the event of a fire;
- Arrangements for the safe evacuation of people identified as being especially at risk, such as contractors, those with disabilities, members of the public and visitors;
- Where appropriate, any machines / processes / power supplies which need to be stopped or isolated in the event of fire;
- Specific arrangements, if necessary, for high fire risk area of the workplace;
- How the fire brigade and any other necessary emergency services will be called and who will be responsible for doing this;
- Procedures for liaising with the fire brigade on arrival and notifying them of any special risks, e.g. the location of highly flammable materials;
- The training employees require and the arrangements for ensuring that this training is given.

The site plan

If you have a large or complex workplace, then it might be beneficial to include a simple plan drawing. The drawing should show:

- Essential structural features such as the layout of the workplace, escape routes etc;
- Means for fighting fire (details of the number, type and location of the fire-fighting equipment);
- The location of manually operated fire alarm call points and control equipment for the fire alarm;
- The location of any emergency lighting equipment and any exit route signs;
- The location of the main electrical supply switch, the main water shut-off valve and, where applicable, the main gas or oil shut-off valves.



Fire extinguishers

There are four broad fire types:

- **Class A** fires involve ordinary combustible materials such as paper, wood, cardboard, and most plastics. The numerical rating on these types of extinguishers indicates the amount of water it holds and the amount of fire it can extinguish.
- **Class B** fires involve flammable or combustible liquids such as gasoline, kerosene, grease and oil. The numerical rating for class B extinguishers indicates the approximate number of square feet of fire it can extinguish.
- **Class C** fires involve electrical equipment, such as appliances, wiring, circuit breakers and outlets. Never use water to extinguish class C fires - the risk of electrical shock is far too great! Class C extinguishers do not have a numerical rating. The C classification means the extinguishing agent is non-conductive.
- **Class D** fires are commonly found in a chemical laboratory and involve combustible metals, such as magnesium, titanium, potassium and sodium. These types of extinguishers also have no numerical rating, nor are they given a multi-purpose rating - they are designed for class D fires only.

Here are the most common types of fire extinguishers:





- **Water extinguishers** or APW extinguishers (air-pressurized water) are suitable for **class A fires only**. **Never use a water extinguisher on grease fires, electrical fires or class D fires** - the flames will spread and make the fire bigger! Water extinguishers are filled with water and are typically pressurized with air. Again - water extinguishers can be very dangerous in the wrong type of situation. Only fight the fire if you're certain it contains ordinary combustible materials only.
- **Dry chemical** extinguishers come in a variety of types and are suitable for a combination of **class A, B and C fires**. These are filled with foam or powder and pressurized with nitrogen.
 - **BC** - This is the regular type of dry chemical extinguisher. It is filled with sodium bicarbonate or potassium bicarbonate. The BC variety leaves a mildly corrosive residue which must be cleaned immediately to prevent any damage to materials.
 - **ABC** - This is the multipurpose dry chemical extinguisher. The ABC type is filled with monoammonium phosphate, a yellow powder that leaves a sticky residue that may be damaging to electrical appliances such as a computer.

Dry chemical extinguishers have an advantage over CO2 extinguishers since they leave a non-flammable substance on the extinguished material, reducing the likelihood of re-ignition.

- **Carbon Dioxide (CO2) extinguishers** are used for **class B and C fires**. CO2 extinguishers contain carbon dioxide, a non-flammable gas, and are highly pressurized. The pressure is so great that it is not uncommon for bits of dry ice to shoot out the nozzle. They don't work very well on class A fires because they may not be able to displace enough oxygen to put the fire out, causing it to re-ignite.

CO2 extinguishers have an advantage over dry chemical extinguishers since they don't leave a harmful residue - a good choice for an electrical fire on a computer or other favourite electronic device such as a stereo or TV.



Fire Extinguisher Chart							
Extinguisher		Type of Fire					
Colour	Type	Solids (wood, paper, cloth etc)	Flammable liquids	Flammable gases	Electrical equipment	Cooking oils and fats	Special notes
	Water	✓ Yes	✗ No	✗ No	✗ No	✗ No	Dangerous if used on 'liquid fires' or live electricity
	Foam	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes	Not practical for home use
	Dry powder	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	Safe use up to 1000V
	Carbon Dioxide (CO2)	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes	Safe on high and low voltages

