

# RISK ASSESSMENT



Health and Safety Guidance Note



**NFU Mutual**  
RISK MANAGEMENT SERVICES

## INTRODUCTION

The Management of Health and Safety at Work Regulations 1999 [Management of Health and Safety at Work (Northern Ireland) 2000] require employers and the self-employed to carry out a suitable and sufficient assessment of the risks to health and safety arising from their work activities which may affect employees, contractors, customers, partners, and any other people who could be affected by your activities, such as members of the public.

The aim of the risk assessment process is to ensure that no one is injured or becomes ill as a result of work activities. Risk assessments will identify potential hazards and identify whether current control measures are suitable and sufficient. They will also help decide if further control measures are required to eliminate the hazard or reduce the risk to an acceptable level. Furthermore risk assessments will identify measures needed to comply with legislation, help prioritise in the decision making process and improve the cost effectiveness of resource allocation.

A risk assessment is not about creating huge amounts of paperwork, but rather about identifying sensible measures to control the risks in your workplace.

We all carry out risk assessments as part of our normal daily activities. We wear warm clothes to protect ourselves from bad weather conditions, use our seatbelts as we know that this will reduce the likelihood of getting an injury if we are in a car accident and put the house alarm on before we leave the house so as to ward off any potential burglaries. These are all types of risk assessments and you simply have to apply these principals to the activities that you undertake.

## RISK ASSESSMENT PROCESS

The process of risk assessment involves studying the work activities and deciding what could cause harm. Consideration must then be given to the likelihood that harm could occur in practice. The next part of the process is to identify the precautions that need to be taken in order to reduce the likelihood of harm occurring. When carrying out this process, consideration must be given to legal requirements and guidance on good practice.

### HAZARD VS. RISK

Anything that could cause harm is generally referred to as a **HAZARD**. The probability that someone will be harmed by a hazard is called the **RISK**.

The process of risk assessment will identify what the likelihood is of the hazard resulting in harm AND the degree of harm that would be caused if something did happen.

## RISK ASSESSMENT METHODOLOGY

There are a number of ways to assess risks and alternative methods should be reviewed, as well as the method outlined here, before you decide which to use. Above all, a risk assessment should be structured, systematic and thorough. Any risk assessment must be 'suitable and sufficient'.

### DEFINE THE SCOPE OF THE ASSESSMENT

- The first step of any risk assessment is to decide which work activities or area is to be assessed. It is useful to limit the assessment to a range of hazards or risks. Details of the workplace, shift patterns, materials being handled, etc., should also be noted.

If work activities constantly vary or move between sites, you should assess the common risks you can reasonably foresee. Any additional risks that become apparent on site should then be appropriately assessed.

If you are working near third parties consider the risks which may affect them and give them details of the risks.

## 5 STEPS TO RISK ASSESSMENT

### STEP 1 – IDENTIFY THE HAZARDS

This is the most important step in the process. If a hazard is not identified the associated risk cannot be assessed.

Take a fresh look at the activity, ignore trivial issues and try to identify significant hazards which may result in serious harm or affect a number of people. A Hazard Identification Checklist is included at the end of this guidance document, which may be of use in this process.

#### SIGNIFICANT RISKS

Significant risks are those that are not trivial in nature and are capable of creating a real risk to health and safety which any reasonable person would appreciate and would take steps to guard against.

What can be considered as ‘insignificant’ will vary from site to site and activity to activity, depending on specific circumstances.

Some hazards will exist under normal conditions but some hazards will only be apparent in emergency situations or during maintenance operations. The identification process should take account of the environmental conditions, the premises/site conditions, the weather and the age, knowledge and experience of the people affected. Your employees will be a valuable information source during this process. Manufacturers and suppliers information will also prove useful.

### STEP 2 – DECIDE WHO COULD BE HARMED AND HOW

Decide who may be injured or whose health could be damaged. This could be employees, members, the public, contractors, etc. Decide how they would be harmed.

There are specific legal requirements to carry out risk assessments for vulnerable groups of people, such as young persons and new and expectant mothers.

#### Young Persons

A person who is under 18, but no longer a child, should not be employed until an assessment of the risks to that person have been carried out. The assessment should take account of the inexperience and immaturity of the young person, workplace design, possible exposure to physical, biological and chemical agents, use of work equipment, organisation of activities and training to be provided.

#### New and Expectant Mothers

When work is being carried out by women of a childbearing age, a risk assessment should be carried out to establish if there are physical, biological or chemical agents which may affect the health and safety of a new or expectant mother or her baby.

### STEP 3 – ASSESS THE RISK AND IDENTIFY ADDITIONAL CONTROL MEASURES

You may already be taking precautions to ensure that the risks are controlled. Check legal requirements and industry standards and decide if the risks are being reduced to as low a level as is reasonably practicable.

#### REASONABLY PRACTICABLE

Reasonably Practicable means balancing the level of risk against the measures needed to control the real risk in terms of money, time or trouble. However, you do not need to take action if it would be grossly disproportionate to the level of risk.

The next section contains a Risk Matrix which enables you to decide on the size of the risk by considering the probable frequency of the hazard and the severity of the harm. The number of people exposed to the hazard and the length of time they are exposed to the hazard should also be considered. The higher the score, the greater the risk, and this should help to prioritise necessary action.

**Risk Matrix**

The following system gives a simply way to determine the relative importance of risks. It takes account of the degree of harm (i.e. what is the worst likely outcome) and the likelihood of the event occurring.

This method also incorporates a judgement as to whether or not a risk is acceptable.

For each hazard identified for each task ask the question “what is the worst likely outcome?” – is it Severe (e.g. fatality), Moderate (e.g. major injury or permanent disability including permanent ill health) or Minor (e.g. a minor injury or plant damage)?

Next, make a judgment of the probability or likelihood of harm occurring:

Likelihood	Description
Probable	Occurs repeatedly/several times
Possible	Could occur sometime
Remote	Unlikely, though conceivable

Decisions as to whether or not action is needed can then be made by reference to the following matrix:

Severe	3	6	9
Moderate	2	4	6
Minor	1	2	3
	Remote	Possible	Probable

By using a matrix such as this, the risk level can be determined and used to prioritise your controls. If degree of harm is compared with the likelihood of it occurring, a numerical value can be obtained.

- Risk levels of 9 would need controlling immediately.
- Risk levels of 1 may need no control measures.

### Identify Further Control Measures

Once you have identified and assessed the risk, you must draw up a list of additional actions which are needed to control the risk.

Risks should be reduced to the lowest reasonably practicable level by taking preventative measures, in order of priority. This is called a hierarchy of control. The list below sets out the order to follow when planning to reduce risks you have identified in your workplace. Consider the headings in the order shown, do not simply jump to the easiest control measure to implement.

1. Elimination – Redesign the job or substitute a substance so that the hazard is removed or eliminated.
2. Substitution -- Replace the material or process with a less hazardous one.
3. Engineering controls – for example use work equipment or other measures to prevent falls where you cannot avoid working at height, install or use additional machinery to control risks from dust or fume or separate the hazard from operators by methods such as enclosing or guarding dangerous items of machinery/equipment. Give priority to measures which protect collectively over individual measures.
4. Administrative Controls – These are all about identifying and implementing the procedures you need to work safely. For example: reducing the time workers are exposed to hazards (e.g. by job rotation); prohibiting use of mobile phones in hazardous areas; increasing safety signage, and performing risk assessments.

5. Personal protective clothes and equipment – Only after all the previous measures have been tried and found ineffective in controlling risks to a reasonably practicable level, must personal protective equipment (PPE) be used. For example, where you cannot eliminate the risk of a fall, use work equipment or other measures to minimise the distance and consequences of a fall (should one occur). If chosen, PPE should be selected and fitted by the person who uses it. Workers must be trained in the function and limitation of each item of PPE.

When the risk assessment has been completed, you should arrange for the effective planning, organisation, control, monitoring and review of the preventative and protective measures that have been identified as being necessary.

### STEP 4 – RECORD YOUR FINDINGS

A Risk Assessment form (an example template of which is provided at the end of this guidance document) can be used to record the findings of the assessment and be kept on file. The records should be kept in order to be used in reviews of the assessments, to be shown to enforcement officers and to be used as evidence in any civil liability actions.

Whilst every business is required to undertake a risk assessment, this does not need to be in writing if there are less than five employees. However recording significant findings of the assessment, as a reference document, will help to ensure that control measures are introduced and maintained and it will also serve as proof that an assessment has been carried out.

The findings of the assessments must be communicated to employees and relevant others. To make this process simpler the findings of the assessment can be referred to in other documented policies and procedures rather than your employees having to read the actual risk assessment document.

## STEP 5 – REVIEW AND REVISION OF THE ASSESSMENT

Once the additional control measures are implemented, the risk assessment process should be repeated to check that the risk has actually been reduced to the lowest practicable level. Further control measures will be needed if this is not the case.

Risk assessments should be reviewed on a regular basis (e.g. annually, there is no set frequency for carrying out a review) and a review should also take place when there have been significant changes. Your workplace will change over time. You are likely to bring in new equipment, substances and procedures. There may be advances in technology. You may have an accident or a case of ill health. You should review your assessment if any of these events happen.

Remember to amend your assessment as a result of your review.

## FURTHER GUIDANCE

- HSE Website: Risk -Controlling the risks in the workplace  
[www.hse.gov.uk/risk/controlling-risks.htm](http://www.hse.gov.uk/risk/controlling-risks.htm)
- HSE Risk management web site  
[www.hse.gov.uk/risk/index.htm](http://www.hse.gov.uk/risk/index.htm)
- INDG163(rev4) A brief guide to controlling risks in the workplace  
[www.hse.gov.uk/pubns/indg163.htm](http://www.hse.gov.uk/pubns/indg163.htm)

These documents are available to download free of charge from [www.hse.gov.uk/pubns/books](http://www.hse.gov.uk/pubns/books)

## HAZARD IDENTIFICATION CHECKLIST

Workplace Hazards				
<b>Gravity</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Elevated work areas (ladders, scaffolds, roofs, platforms)</li> <li><input type="checkbox"/> Falling materials or objects</li> <li><input type="checkbox"/> Holes/openings in floors</li> <li><input type="checkbox"/> Overhead cranes</li> <li><input type="checkbox"/> Stairs</li> <li><input type="checkbox"/> Trip/slip hazards</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Work Environment</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Deep liquids</li> <li><input type="checkbox"/> Drinking water contaminants</li> <li><input type="checkbox"/> Food-borne contaminants</li> <li><input type="checkbox"/> Heat or cold, humidity</li> <li><input type="checkbox"/> Noise</li> <li><input type="checkbox"/> Oxygen deficiency</li> <li><input type="checkbox"/> Powders or flowing solids</li> <li><input type="checkbox"/> Water/Floods</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Temperature, etc</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Cryogenic liquids</li> <li><input type="checkbox"/> Elevated temperatures</li> <li><input type="checkbox"/> Hot liquids or steam</li> <li><input type="checkbox"/> Hot surfaces or flames</li> <li><input type="checkbox"/> Low temperatures</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>People</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Impaired performance from drugs or alcohol</li> <li><input type="checkbox"/> Violent or abusive people</li> <li><input type="checkbox"/> Workplace smoking</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Other Workplace Hazards</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Adjacent facilities</li> <li><input type="checkbox"/> Pressurised plant: air, gas or hydraulics</li> <li><input type="checkbox"/> Severe weather, e.g. , wind, snow, rain, etc.</li> <li><input type="checkbox"/> Vacuum plant</li> <li><input type="checkbox"/> Other _____</li> </ul>
Work Activity Hazards				
<b>Fire/Explosion/Reaction</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Arson</li> <li><input type="checkbox"/> Chemical reaction</li> <li><input type="checkbox"/> Combustible dust</li> <li><input type="checkbox"/> Flammable gas/vapour</li> <li><input type="checkbox"/> Flammable liquid</li> <li><input type="checkbox"/> Hot work, flame or spark</li> <li><input type="checkbox"/> Lightning</li> <li><input type="checkbox"/> Reactive chemical</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Work Equipment</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Breakages and releases (sparks, chips, fume)</li> <li><input type="checkbox"/> Failure or collapse of equipment, racking</li> <li><input type="checkbox"/> Moving parts</li> <li><input type="checkbox"/> Overturning</li> <li><input type="checkbox"/> Sharp edges/points</li> <li><input type="checkbox"/> Stored energy</li> <li><input type="checkbox"/> Vibration</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Ergonomics</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Lighting levels, glare and contrast</li> <li><input type="checkbox"/> Manual handling</li> <li><input type="checkbox"/> Repetitive movement</li> <li><input type="checkbox"/> Static or awkward posture</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Electricity</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Defective connections</li> <li><input type="checkbox"/> Exposed conductors</li> <li><input type="checkbox"/> High voltages</li> <li><input type="checkbox"/> Overloaded circuits</li> <li><input type="checkbox"/> Static electricity</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Transport</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Delivery vehicles</li> <li><input type="checkbox"/> Lift trucks, pallet trucks</li> <li><input type="checkbox"/> On-site vehicles</li> </ul> <b>Other Work Activity Hazards</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Animals: bites, kicks, stings</li> <li><input type="checkbox"/> Occupational travel</li> <li><input type="checkbox"/> Psychological stressors</li> <li><input type="checkbox"/> Other _____</li> </ul>
Hazardous Agents				
<b>Chemical/Sensitising Agents</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Animal dander</li> <li><input type="checkbox"/> Final products</li> <li><input type="checkbox"/> Gases, vapours and fumes</li> <li><input type="checkbox"/> Incompatible chemicals</li> <li><input type="checkbox"/> Laboratory chemicals</li> <li><input type="checkbox"/> Latex gloves</li> <li><input type="checkbox"/> Maintenance/housekeeping chemicals</li> <li><input type="checkbox"/> Raw materials</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Radiation</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Electrical and magnetic fields</li> <li><input type="checkbox"/> Intense visible light</li> <li><input type="checkbox"/> Ionising radiation</li> <li><input type="checkbox"/> Lasers</li> <li><input type="checkbox"/> Microwaves or radio frequency radiation</li> <li><input type="checkbox"/> Ultraviolet or infra-red radiations</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Biological Agents</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Genetically modified organisms</li> <li><input type="checkbox"/> Legionella</li> <li><input type="checkbox"/> Pathogens</li> <li><input type="checkbox"/> Zoonoses</li> <li><input type="checkbox"/> Other _____</li> </ul>	<b>Other Hazardous Agents</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Building materials (e.g. asbestos, PCBs)</li> <li><input type="checkbox"/> Other _____</li> </ul>	

## RISK ASSESSMENT FORM TEMPLATE

Name:	Date of assessment:	Review date:				
Area being assessed:	Assessor(s) name:					
What are the hazards/ tasks/activity?	Who could be harmed and how?	What are the control measures?	Risk rating	What further measures are required?	Target completion date/ comments/progress	

What are the hazards/ tasks/activity?	Who could be harmed and how?	What are the control measures?	Risk rating	What further measures are required?	Target completion date/ comments/progress

Signed: ..... Print Name: .....

Position: ..... Date: .....

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VERSION: 2 – 0421