

## RISK AND HAZARD MANAGEMENT

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### Risk Assessment

The Health and Safety at Work Act 2015 requires the management of risks. A risk assessment can help determine:

- The consequence and likelihood of the risk associated with a hazard.
- Whether existing control measures are effective.
- The action which should be taken to control the risk/hazard.
- The urgency of actions to control the risk/hazard.

A risk assessment can be undertaken with varying degrees of detail depending on the type of hazards and the information, data and resources which is available. It can be as simple as a discussion with workers or involve specific risk analysis tools and techniques recommended by safety professionals.

### When to carry out a risk assessment

A risk assessment should be completed when:

- There is uncertainty about how a hazard may result in harm.
- The work activity involves a number of different hazards and there is a lack of understanding about how the hazards may interact with each other to produce new or greater risks.
- Changes at the workplace occur which may impact on the effectiveness of control measures.

Some hazards have exposure standards, such as noise and airborne contaminants, and may require scientific testing or measurement by a competent person to accurately assess the risk and to check the relevant exposure standard is not being exceeded (for example, by using noise meters to measure noise levels and using gas detectors to analyse oxygen levels in confined spaces).

A risk assessment is not necessary in the following situations:

- Legislation requires some hazards or risks to be controlled in a specific way – these requirements must be complied with.
- A code of practice or other guidance sets out a way of controlling a hazard or risk which is applicable to your situation and you choose to use the recommended controls. In these instances, the guidance should be followed.
- There are well-known and effective controls in use in the particular industry, which are suited to the circumstances in your workplace. These controls can be implemented.

### How to complete a risk assessment

**Work out the consequences** – the severity of the harm which could result from the hazard:

- What type of harm could occur? (e.g. muscular strain, fatigue, burns, laceration, plant, equipment, property, hazardous substances)
- How severe is the harm?
- Could the hazard cause a notifiable event, or only minor injuries requiring first aid?

**Work out the likelihood of the harm occurring** – this can be estimated by considering:

- How often is the task carried out? Does this make the harm more or less likely?
- How often are people near the hazard? How close do people get to it?
- Has it ever happened before, either in your workplace or somewhere else? How often?

The level of risk will increase as the likelihood of harm occurring and/or its severity increases.

### Risk assessment matrix

This risk assessment matrix is just one of numerous examples which are in use. This particular matrix uses the simplest components to calculate the risk score:

**Risk = Likelihood (of harm occurring) x Consequence (of the harm)**

**\*\*\*Risk Assessment is not a method to determine whether to control a hazard – all hazards are required to be controlled\*\*\***

0 – 5 = Low Risk		CONSEQUENCE – the severity of the potential harm				
		Insignificant damage to property, equipment or minor injury	Non-reportable injury, minor loss of process or slight damage to property	Reportable injury, moderate loss of process or limited damage to property	Major injury, single fatality, critical loss of process/damage to property	Multiple fatalities, catastrophic loss of business
6 – 10 = Moderate Risk		1	2	3	4	5
11 – 15 = High Risk						
16 – 25 = Extremely High Risk		1	2	3	4	5
LIKELIHOOD – the chances of the harm occurring	Almost certain <b>5</b>	5	10	15	20	25
	Will probably occur <b>4</b>	4	8	12	16	20
	Possibly occur <b>3</b>	3	6	9	12	15
	Remote possibility <b>2</b>	2	4	6	8	10
	Extremely unlikely <b>1</b>	1	2	3	4	5