

Hazards

A hazard is anything with the potential to cause harm.

For each process it is important that all **significant** hazards are identified. If it's trivial, don't include it.

You need to think carefully about the hazards. They should be described properly to ensure that they are easily understood and communicated. See the Risk Assessment training course notes for guidance on how hazards should be described.

Who could be harmed?

For each hazard think about and record who could be harmed. This may be an individual but it could also be a generic group (e.g. technical staff, engineering students, contractors, etc.).

It may be that the people who may be harmed are the same ones for all of the hazards but do not assume that this will always be the case.

Consider people who are not directly involved in the process but may be harmed (e.g. maintenance staff, cleaners, visitors, etc. - in some cases it may be appropriate to develop separate risk assessment for these people).

You may also need to consider individuals or groups of people who may be particularly vulnerable (e.g. disabled persons, children, new starters, etc.).

Existing safety precautions

For each hazard think about and record the existing safety precautions.

For each of the safety precautions consider if and how it could fail (e.g. someone not wearing the PPE that they have been given). This will help you to determine the risk.

Risk level

Taking into account the existing safety precautions, assess the risk level for each hazard.

Each assessment of risk should consider factors that affect the likelihood of an incident occurring and the severity of the outcome.

Assessment of the likelihood should consider:

- Number of people usually exposed to the hazard
- How frequently people are exposed to the risk
- Number of previous incidents associated with the activity/hazard

Assessment of the probable severity of the outcome should consider:

- Likely physical injury (e.g. minor cut, lost time injury, permanent disability, death)
- Likely health impact (e.g. minor irritation, short-term illness, life-threatening disease)
- Number of people likely to be affected

Based on the above, the overall risk level for the hazard should be described as **Low**, **Medium** or **High**.

Alternatively, the **Risk Rating Matrix** (overleaf) may be used to determine a numerical value for the risk level.

Risk level (Cont.)

Risk Rating Matrix

Probable Severity	Likelihood		
	1 (Low)	2 (Medium)	3 (High)
3 (High)	3	6	9
2 (Medium)	2	4	6
1 (Low)	1	2	3

Note: A 5 x 5 risk rating system may be used, if preferred.

Additional safety precautions needed to reduce the risk level?

If the assessment of any hazard has resulted in a **High** risk level (or a rating of **6 or 9**), additional safety precautions that will reduce the risk **MUST be implemented**.

If the assessment of a hazard has resulted in a **Medium** risk level (or a rating of **3 or 4**), additional safety precautions that could reduce the risk **should be considered** but the effort and cost of their implementation may also be taken into account.

If the assessment of a hazard has resulted in a **Low** risk level (or a rating of **1 or 2**), additional safety precautions that could reduce the risk further **should be considered** if they can be implemented easily and at minimal cost.

If additional safety precautions are to be implemented, the revised level of risk should be determined to ensure that it will be as low as is reasonably possible. Associated actions should always be allocated to someone and a target date for implementation should be set.

Communication of significant findings

All of the significant findings of the risk assessment must be communicated to all people who may be affected by the process/activity. This communication is likely to be carried out by the manager of the people who may be affected.

Approval

All risk assessments should be signed and dated by the person carrying out (or leading) the assessment.

The assessment should then be checked and approved by the manager responsible for the process/activity being assessed, by the manager of the staff who may be affected by the process/activity or someone who is competent to be able to review the risk assessment. This approval indicates that the findings of the assessment are valid and that the safety precautions will be implemented.

Monitoring and review

On-going monitoring should take place and the risk assessment should be reviewed whenever there is a reason to suspect that it is no longer valid (e.g. after an accident).

Periodic reviews should also be planned and carried out. The chosen frequency of the reviews should be reasonable. In most cases it would be expected that the reviews should be carried out at least annually. However, where risks are generally low, this period may be extended to a maximum of 2 years. The review frequency should be recorded on the risk assessment.