



Universiti Brunei Darussalam

RISK ASSESSMENT (RA)

Brief introduction

A risk assessment is simply a careful examination of what, in your work could cause harm, so that you can weigh up whether you have taken enough precautions or should do more to prevent harm. Workers, students and others have a right to be protected from harm caused by a failure to take reasonable control measures.

Accidents and ill health can ruin lives and affect our business. In addition, risk assessment is required legally so that you put in place a plan on control measures to reduce the risks to '**as low as reasonably practicable**' (**ALARP**). An easy way of doing this is to compare what you are already doing with good practice. If there is a difference, list what needs to be done.

How to assess the risk?

Simply follow the **5 steps** below;

Step 1: Identify the hazards

Step 2: Decide who might be harmed and how

Step 3: Evaluate the risks and decide on precautions

Step 4: Record your findings and implement them

Step 5: Review your assessment and update if necessary

When thinking about your risk assessment, remember:

- a **hazard** is anything that may cause harm, such as chemicals, electricity, working at height, travelling on air, working alone etc;
- the **risk** is the chance, high or low, that somebody could be harmed by these and other hazards, together with an indication of how serious the harm could be.

Step 1 - Identify the hazards

First you need to work out how you OR other people could be harmed. Referring to accident and ill-health records or visiting a website of an unfamiliar country to be visited usually help. Remember to think about long-term hazards to health (e.g., high levels of noise or exposure to harmful substances) as well as safety hazards.

Step 2 - Decide who might be harmed and how

For each hazard you need to be clear about who might be harmed; it will help you identify the best way of managing the risk. In each case, identify how you OR others might be harmed, i.e., what type of injury or ill health might occur. For example, 'a long distance traveler is subject to accidental injury or death OR a reckless driver could kill himself and the passengers AND/OR shelf stackers may suffer back injury from repeated lifting of boxes'.

Step 3 - Evaluate the risks and decide on control/precautions

Having identified the hazards, you then have to decide and do everything 'reasonably practicable' to protect yourself and others from harm. You can work this out for yourself, but the easiest way is to compare what you are doing with good practice.

But firstly evaluate the risk by;

- i. **Determining the likelihood**
- ii. **Ascertaining the possible consequence/s and,**
- iii. **Measuring the risk level**

i. Determine the likelihood

How likely would a hazardous event or situation will occur?

Level	Description	Detailed Description
1	Unlikely	Remotely possible, combination of factors would be required to trigger the incident (> 10 years)
2	Possibly	Could happen but only Could happen when additional factors are reset but otherwise unlikely to occur (last 3 years)
3	Likely	Happen all the time, almost inevitable (last 6 months)

ii. Ascertain the possible consequence/s and,

What might be the consequence of a hazardous event or situation?

Consequence / Severity	Level	Environment	Safety and Health	Legal	Reputation
Low	1	No lasting effects OR Low Level impacts on biological or physical environment. Limited damage to minimal area of low significance	No OR Minor Injuries Only (First Aid etc.)	Low level legal issue. On the spot fine. Technical non-compliance. Prosecution unlikely.	No OR Slight Impact
Medium	2	Minor and/or moderate effects on biological or physical environment. Minor to Moderate short-medium term widespread but not affecting ecosystem function.	Hospitalization, Medical Leave etc.	Minor legal issues, non-compliances and breaches of regulation. Minor prosecution or litigation possible.	Moderate Impact
High	3	Very serious environmental effects with impairment of ecosystem function. Long term, widespread effects on significant environment (e.g. unique habitat).	Serious injuries, Permanent Disability OR Fatality	Serious and/or Major breach of regulation with potential major fine and/or investigation and prosecution by authority. Major litigation.	Serious Impact

iii. Measure the risk level

Calculate and decide the degree of risk:

***Severity of Consequences X Likelihood of Occurrence = Risk Level**

[e.g., Severity is, 3 X Likelihood is, 2) = 3 X 2 = Risk Level = 6]

RISK ASSESSMENT MATRIX		Likelihood		
		Unlikely	Possibly	Likely
Consequences/Severity		1	2	3
Low	1	(1)	(2)	(3)
Medium	2	(2)	(4)	(6)
High	3	(3)	(6)	(9)

RISK LEVEL	DECISION PROCESS
< 3	RISK ACCEPTABLE BUT ENSURE CONTROLS ARE PROPERLY AND ADEQUATELY MAINTAINED
3 - 4	CONSIDER ADDITIONAL RISK CONTROL TO REDUCE THE RISK
> 4	ADDITIONAL RISK CONTROL MANDATORY. IF RISK NOT REDUCED, STOP ACTIVITY IMMEDIATELY

Once the risk level has been determined, look at what you are already doing, think about what controls you have in place and how the work is organized. Then compare this with the good practice and see if there's more you should be doing to reduce the risk.

When controlling risks, apply good principles OR best practices e.g.;

- Eliminate or substitute risky option by using a less hazardous materials/method);
- Engineering controls (e.g. inflatable life vest/bullet proof vest/ guarding of machine);
- Administrative controls by mean of procedures/policy/SOP/regulations to reduce exposure to the hazard;

- Issue personal protective equipment (PPE) (e.g., clothing, footwear, goggles etc.);
- Provide welfare/facilities (e.g. financial support/ transportation/ communication/ first aid kit/ washing facilities etc.).

Step 4 - Record your findings and implement them

When writing down your results, keep it simple, e.g., *‘Tripping over rubbish: bins provided, staff instructed, weekly housekeeping checks’*, or *‘Fume from welding: local exhaust ventilation used and regularly checked’*.

We do not expect a risk assessment to be perfect, but it must be suitable and sufficient. You need to be able to show that:

- a proper check was made;
- you dealt with all the significant hazards, taking into account the number of people who could be involved;
- the risks control are reasonable, and the remaining risk is low;
- others or their representatives are involved in the process;
- regular checks are made to make sure that the control measures stay in place; and
- clear responsibilities – who will lead on what action, and by when.

**Remember, prioritise and tackle the most important things first.*

Step 5 – Review and update if necessary

Look at your risk assessment again. Have there been any changes? Are there improvements you still need to make? Have anyone spotted a problem?

Have you learnt anything from accidents, dangerous occurrences or near misses?

When you are running a business it’s all too easy to forget about reviewing the risk assessment – until something has gone wrong and it’s too late. During the year, if there is a significant change, don’t wait. Check your risk assessment and, where necessary, amend it. If possible, it is best to think about the risk assessment when you’re planning your change – that way you leave yourself more flexibility.