



Hazard Identification, Risk Assessment and Control Procedure

1. Purpose

To ensure that there is a formal process for hazard identification, risk assessment and control to effectively manage workplace and safety hazards within the Western Sydney University.

2. Preamble

A Person Conducting A Business or Undertaking (PCBU) has obligations under the Work Health and Safety Act 2011 (WHS Act) as well as the Work Health and Safety Regulation 2011 (WHS Regulation) to manage risks to health and safety so far as is reasonably practicable. A risk management approach involves identification and assessment of risks followed by elimination of risks in the first instance or where this is not practicable, minimising those risks so far as reasonably practicable.

The risk management approach is important for three main reasons:

- So that the University's duty of care to its workers, customers, contractors, students, visitors and others that work or learn at the University can be met, as part of the legislative health and safety requirements.
- Out of concern for the health and safety of workers, students, contractors, visitors and others at Western Sydney University workplaces.
- It makes good business sense and is cost effective.

A key requirement of managing risks in the workplace is consulting with workers affected by a health and safety matter. Workers should be involved in the hazard identification, risk assessment and risk control processes. Where workers are represented by a Health and Safety Representative (HSR), this HSR must be involved in the consultation process. The legislation also requires that where several PCBUs have duties for a health and safety matter, these PCBUs must consult, cooperate and coordinate their risk management activities to ensure effective management of the health and safety matter.

Workplace hazard identification, assessment and control is an on-going process. It should be undertaken at various times, including:

- If it has not been done before.
- When a hazard has been identified
- When a change to the workplace may introduce or change a hazard. Such as when changes occur to the work equipment, practices, procedures or environment.
- As part of responding to a workplace incident, even where an injury has not occurred.
- Where new information about a risk becomes available or concerns about a risk are raised by workers
- At regularly scheduled times appropriate to the workplace.

It is often more effective and easy to eliminate hazards if risk management approaches used at the planning and design stages for products, processes and places for work.

The following procedure for risk management (involving hazard identification, risk assessment and control) is a practical guide for helping make all University workplaces safer for workers, students, contractors, and visitors. It will help both management and workers, through consultation, to comply with the WHS regulations. These regulations require PCBUs to identify, assess and control hazards in the workplace with the aim of eliminating hazards or minimising hazards, do far as reasonably practicable. Recording risk management activities, including risk assessments and consultation processes is required.

These procedures will assist in:

- Finding hazards in University workplaces.
- Assessing the risks that may result from these hazards.
- Determining control measures to eliminate or minimise the level of the risks.
- Monitoring and reviewing the effectiveness of control measures.

3. Definitions

Hazard: Anything (e.g. condition, situation, practice, behaviour) that has the potential to cause harm, including injury, disease, death, environmental, property and equipment damage. A hazard can be a thing or a situation.

Hazard Identification: This is the process of examining each work area and work task for the purpose of identifying all the hazards which are "inherent in the job". Work areas include but are not limited to machine workshops, laboratories, office areas, agricultural and horticultural environments, stores and transport, maintenance and grounds, reprographics, and lecture theatres and teaching spaces. Tasks can include (but may not be limited to) using screen based equipment, audio and visual equipment, industrial equipment, hazardous substances and/or teaching/dealing with people, driving a vehicle, dealing with emergency situations, construction. This process is about finding what could cause harm in work task or area.

Risk: The likelihood, or possibility, that harm (injury, illness, death, damage etc) may occur from exposure to a hazard.

Risk Assessment: Is defined as the process of assessing the risks associated with each of the hazards identified so the nature of the risk can be understood. This includes the nature of the harm that may result from the hazard, the severity of that harm and the likelihood of this occurring.

Risk Control: Taking actions to eliminate health and safety risks so far as is reasonably practicable. Where risks cannot be eliminated, then implementation of control measures is required, to minimise risks so far as is reasonably practicable. A hierarchy of controls has been developed and is described below to assist in selection of the most appropriate risk control measure/s.

Monitoring and Review: This involves ongoing monitoring of the hazards identified, risks assessed and risk control processes and reviewing them to make sure they are working effectively.

4. Responsibilities

Effective risk management requires the commitment to WHS from managers and Officer as well as the input and involvement of workers.

It is the responsibility of all managers and supervisors to ensure that this policy is fully implemented in their area(s) of control and to consult with workers as part of undertaking the hazard identification, risk assessment and control process. It is the responsibility of workers to cooperate and comply with this policy. This includes providing effective and constructive information and feedback to aid the risk management process.

Officers have a responsibility to ensure that the areas under their control are complying with legislative requirements. This includes the Officer understanding the hazards and risks associated with their operations and ensuring that appropriate resources and processes are in place to eliminate or minimise these risks.

5. Risk Assessment Procedure

The risk assessment procedure can best be illustrated in the following way.



Step 1: Identify Hazards

WHS legislation in New South Wales requires that PCBU's, in consultation with workers identify all potentially hazardous things or situations that may cause harm. In general, hazards are likely to be found in the following;

- Physical work environment,
- Equipment, materials or substances used,
- Work tasks and how they are performed,
- Work design and management

In order to identify hazards the following are recommended:

- (i) Past incidents/accidents are examined to see what happened and whether the incident/accident could occur again.
- (ii) Employees be consulted to find out what they consider are safety issues, i.e. ask workers about hazards near misses they have encountered as part of their work. Sometimes a survey or questionnaire can assist workers to provide information about workplace hazards.
- (iii) Work areas or work sites be inspected or examined to find out what is happening now. Identified hazards should be documented to allow further action. The work environment, tool and equipment as well as tasks and procedures should be examined for risks to WHS.
- (iv) Information about equipment (e.g. plant, operating instructions) and Material Safety Data Sheets be reviewed to determine relevant safety precautions.
- (v) Welcome creative thinking about what could go wrong takes place, i.e. what hazardous event could take place here?

At the University, any hazard which is identified by this process should be recorded on the **Risk Assessment and Control Sheet** (see Attachment 1 to this document) and further action taken to assess and then control the risks from this hazard.

Step 2: Assess Risks

Risk assessment involves considering the possible results of someone being exposed to a hazard and the likelihood of this occurring. A risk assessment assists in determining:

- How severe a risk is
- Whether existing control measures are effective
- What action should be taken to control a risk
- How urgently action needs to be taken.

A risk assessment should include:

- (i) Identify factors that may be contributing to the risk,
- (ii) Review health and safety information that is reasonably available from an authoritative source and is relevant to the particular hazard,
- (iii) **Evaluation of how severe the harm could be.** This includes looking at the types of injuries/illnesses/harm/damage that can result from the hazard, the number of people exposed, possible chain effects from exposure to this hazard.
- (iv) **Evaluation of how a hazard may cause harm.** This includes examining how work is completed, whether existing control measures are in place and whether they control the harm, looking at infrequent/abnormal situations as well as standard operating situations. A chain of events related to a risk may need to be considered.
- (v) **Determining the likelihood of harm occurring.** The level of risk will increase as the likelihood of harm and its severity increases. The likelihood of harm occurring may be affected by how often the task is completed, in what conditions, how many people are exposed to the hazard and for what duration.
- (vi) Identify the actions necessary to eliminate or control the risk; and
- (vii) Identify records that it is necessary to keep to ensure that the risks are eliminated or controlled.

Other risk factors should also be identified as they may contribute to the risk: including

- (viii) The work premises and the working environment, including their layout and condition,
- (ix) The capability, skill, experience and age of people ordinarily undertaking work,
- (x) The systems of work being used; and
- (xi) The range of reasonably foreseeable conditions.

The process of assessing the risk is undertaken by reviewing any available information about the hazard (e.g. legislation, Australian Standards, Industry Code of Practice or guidance material about the hazard) and by using your personal work experience about what sort of harm the hazard could create and how likely this would be to happen. When determining how likely it is that a person could be exposed to a hazard, consideration needs to be given to these "exposure factors":

- (i) Whether there are any other risk factors that increase the likelihood of exposure?
- (ii) How often is the person exposed (frequency)?
- (iii) or how long is the person exposed (duration)?
- (iv) How many people are exposed?
- (v) the likely dose to which the person is exposed?
- (vi) any legislative or recommended exposure levels required by statutory authorities.

At Western Sydney University we require managers and supervisors to identify hazards, assess the risks of harm resulting from exposure to the hazards and set a priority for corrective action by using a clearly laid out process. The process is as follows:

- (i) Identified hazards are placed on the **Risk Assessment and Control Form**. (attachment 1)
- (ii) A **Risk Category Table** (below) is then used to categorise the type of risk to the university

Risk Category Table

Risk Category	Description
Academic (Course load/ logistics)	Student load by course and campus, Staff student ratios, teaching loads, admission processes and standards, student progression and retention rates , mode of delivery, changes of student profile and market demands, course and unit coordination capacity and load of academics, levels of administrative and technical support for academic course and unit delivery
Academic (Course curriculum / quality)	Quality/ standard of academic program/ course contents, planning strategy for course offerings, approvals and monitoring process for courses and units
Academic (Research)	Research income, research load, research work and staff, research capacity, Intellectual property, patents, ethical conduct in research etc.
Behaviour	University community's risk culture: staff & students' reckless (disasters), conservative (opportunities lost), observation of policies and procedures. Student demonstrations, terrorism, fraud, corrupt conduct, activists seeking to damage the University.
Environmental	Water, soil, air contamination, asbestos, waste management, incidents causing damages, injury/ death, environmentally triggered emergencies.
Financial	Reductions in income, liquidity, financial loss, insurances, debt, budget overruns, tenders.
Infrastructure	The physical fabric of the University, buildings, roads, pathways, utilities (electricity, water).
International	Overseas ventures/ reputation/ program disaster, relationships with overseas universities.
Legal	Contracts and agreements, high profile litigation - financial and reputational impact.
Legislation	Breach, financial penalty/ impact on reputation, laws, regulations, codes, affecting the University.
Organisation	Strength of policies and procedures, planning, staffing, morale, training, ethical culture, leadership and management.
Political	Ability to respond to major changes in education policies, level of government consultation.
Reputation (local/ international)	Damaging media reports, employability of graduates, research links, regional involvement.
Technology	Strategic direction of IT, reliance on ecommerce/ email/ internet, student records system, library.

- (iii) The **Risk Ranking Matrix** is used to assess the likelihood and the severity or consequences of each hazard and to give it a "risk rating".

Risk Rating Matrix

Consequences (C)	Likelihood (L)				
	Rare	Unlikely	Possible	Very Likely	Certain to Occur
Catastrophic	moderate	moderate	high	critical	critical
Major	Low	moderate	moderate	high	critical
Moderate	Low	moderate	moderate	moderate	high
Minor	very low	low	moderate	moderate	moderate
Insignificant	very low	very low	low	low	moderate

Consequences (C)	How Severely Could Someone be Hurt?
Catastrophic	Death or permanent disability
Major	Serious injury, hospital treatment required
Moderate	Injury requiring medical treatment and some lost time
Minor	Minor injury, first aid only required
Insignificant	Injuries requiring no treatment or first aid
Likelihood (L)	How Likely are the Consequences?
Certain to Occur	Expected to occur in most circumstances
Very Likely	Will probably occur in most circumstances
Possible	Might occur occasionally
Unlikely	Could happen some time
Rare	May happen only in exceptional circumstances

Actions Required

Risk Level Rating	Required Action
Critical	Immediate action needed. Access to the hazard should be restricted until the risk can be lowered to an acceptable level. Short term action may be required to lower the risk level and then medium and long term plans to control the risk to as low as reasonably practicable using the Hierarchy of Controls.
High	Action needed quickly (within 1-2 days). The task should not proceed unless the risk is assessed and control options selected based on the Hierarchy of Controls.
Moderate	Action required this week to eliminate or minimise the risk using the Hierarchy of Controls.
Low	Action required within a reasonable timeframe (2-4 weeks) to eliminate or minimise the risk using the Hierarchy of Controls.
Very Low	Risk to be eliminated or lowered when possible using the Hierarchy of Controls.

Step 3: Controlling Risks

Once a risk rating is determined, each hazard must have its existing risk control measures evaluated using the Evaluation of Control Effectiveness Table. This allows for determination of any additional requirement necessary.

Evaluation of Control Effectiveness Table

Well Designed Control ?		Effectively Implemented ?	
3	Needs improvement	3	Deficient (b)
2	Adequate	2	Marginal
1	Strong	1	Effective

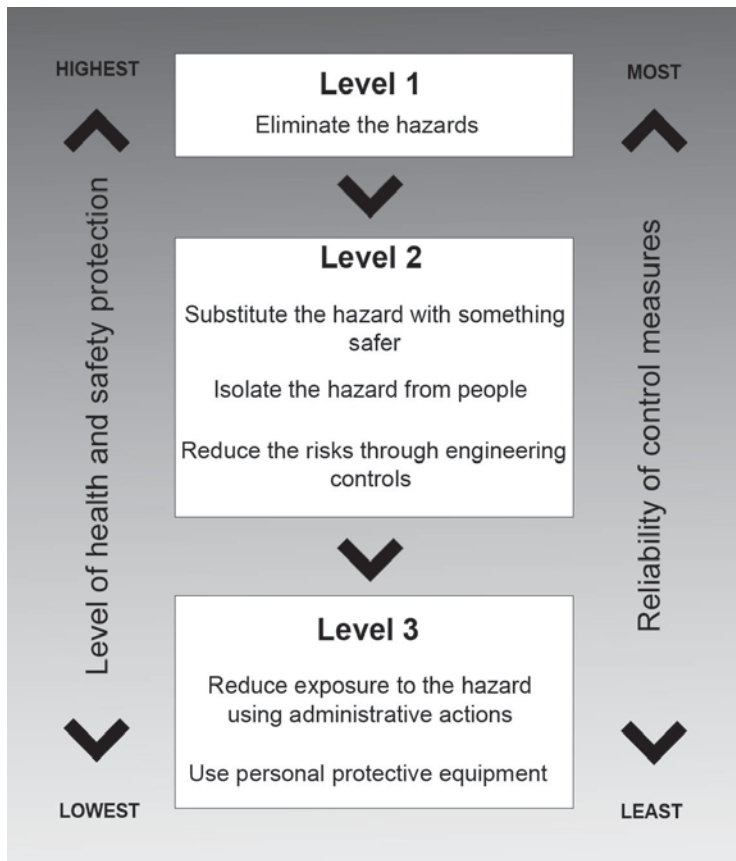
Step 4: Implement additional risk controls

Having identified the hazards in your workplace, assessed their risks and reviewed the existing controls, all hazards must be managed before people are hurt, become ill or there is damage to plant, property or the environment.

The management of risks in the workplace requires eliminating risks so far as reasonably practicable in the first instance. Where elimination is not possible, then risks should be minimised, so far as reasonably practicable.

All hazards that have been assessed should be dealt with in order of priority. The most effective control option/s should be selected to eliminate or minimise risks. The Hierarchy of Controls (see diagram below) ranks control options from highest level of protection and reliability to lowest. This should be used to determine the most effective control/s.

Hierarchy of Controls



Level 1 Control Measures – Eliminate the Hazard

The most effective control measures eliminate the hazard and associated risks. This can be achieved through removing the hazard or selecting alternate products or equipment to eliminate the risk. If a hazard cannot be eliminated then risks can be minimised by lower control measures

Level 2 Control Measures

These are used to minimise the risks and involve on or a combination of the following;

- (i) **Substitute the hazard:** substitute a substance, method or material to reduce the risk or the hazard
- (ii) **Isolate the hazard:** separate the hazard from the workplace or people, For example;
 - a. Chemical store room, or a laboratory kept locked except to an authorised person.
 - b. Lock out procedures on faulty equipment.
 - c. Appropriate guarding for machinery.

- (iii) **Use engineering controls:** modify existing machinery or plant or purchase different machinery or plant to provide a physical solution. For example;
 - a. Trolleys, hoists or cranes.
 - b. Guard rails.

Level 3 Control Measures

These are control options which should be considered last as they do not control the source of the hazard but rely on human behaviour or supervision and are therefore less effective. They include;

- (iv) **Administrative Procedures:** develop work methods or procedures to reduce the conditions of risk, for example:
 - a. Written Safe Operating Procedures
 - b. Job rotation to restrict hours worked on difficult jobs.
 - c. Staff trained in the correct operating procedures.
- (v) **Use Personal Protective Equipment (PPE) and training in its use:** offer the lowest level of protection and should only be used as a last resort to deal with the hazard, where the hazard cannot be removed or reduced by any other means, for example:
 - a. Handling of chemicals – gloves, safety glasses, aprons.
 - b. Protecting eyes from flying particles.
 - c. Protecting feet – safety boots.

Consultation with workers is required in the selection and implementation of control measure in the workplace. Controls may need to be trialled to determine effectiveness and workers should be involved in the feedback process.

Each measure must have a designated person and date assigned for the implementation of controls. This ensures that all required safety measures will be completed and documented.

Step 5: Monitor and Review

Hazard identification, risk assessment and control is an on-going process. Therefore, regularly review the effectiveness of your hazard assessment and control measures at least every 3 years. Make sure that you undertake a hazard and risk assessment when there is a change to the workplace including when work systems, tools, machinery or equipment change. Provide additional supervision when new employees with reduced skill levels or knowledge are introduced to the workplace. The effectiveness of control measures can be checked through regular reviews as well as consultation with workers.

Maintaining records of the risk management process assists when undertaking subsequent reviews or risk assessments as it demonstrates decision making processes and informs how controls were intended to be implemented.