3.5 Hazard Management

IMPLEMENTATION

Aim

To prescribe the responsibilities and overarching actions required for the management of hazards during University related activities to ensure the University meets the requirements of the Health, Safety and Wellbeing (HSW) Policy and the relevant sections of the Work Health and Safety Act 2012 (SA) and Work Health and Safety Regulations 2012 (SA).

3.5.1 Objectives

3.5.1.1 To identify and manage the risks to health and safety by eliminating the risk, so far as reasonably practicable, or if not reasonably practicable, to minimise the risk in accordance with the hierarchy of controls [WHS Regulations 2012, Sections 34 - 38].

3.5.1.2 To ensure risk assessments have been completed for activities identified on the School/Branch Hazard Listing(s) (or equivalent listing) where required in accordance with Hazard Management – Risk Assessment Decision Tool (Appendix A).

3.5.2 Scope and application

3.5.2.1 This process applies to workers who are undertaking University of Adelaide related activities (including those working off campus).

3.5.2.2 **Application**

The Hazard Management chapter provides overarching roles, responsibilities, processes and templates for the broad management of hazards and risks to health and safety. The HSW Handbook provides additional and specific information on other Hazard Management activities to assist those with responsibilities to meet WHS legislative requirements (e.g. Workplace Inspections, Contractor Safety Management, Events Management, Chemical Safety Management, and Plant/Equipment Safety Management).

3.5.2.3 **Transitional period**

Where a Hazard Listing is required, transitional arrangements have been approved by the Policy Custodian to support implementation by Schools/Branches for the action outlined below.

"Ensure that there is a local area/School/Branch Hazard Listing(s) (or equivalent) documented, which:

- ❑ includes all the "static" activities, where a risk assessment is required in accordance with the Hazard Management – Risk Assessment Decision Tool;
- ❑ is available in the local area, in either hard copy or electronic copy; and
- ❑ is included in the local area/School/Branch induction process (as applicable)."

(Note: All other provisions for induction outlined in the HSW Induction chapter continue to apply until the local area/School/Branch induction processes include the Hazard Listing.)

The transition period expires on 30 April 2016. All other requirements within the chapter are required and effective from 21 October 2015 (i.e. date of authorisation).

3.5.3 Process: Hazard Management: Planning

Person Responsible		Actions
3.5.3.1	Head of School/Branch	❑ Ensure that the hazards and risks associated with the School/Branch operations are managed and controlled, following the four stage hazard management process. Stage 1: Hazards are identified Stage 2: The level of risk is assessed Stage 3: Control measures are appropriate and followed Stage 4: Control measures are monitored and reviewed. ❑ Ensure there is a process for workers to receive the relevant information on the hazards and associated control measures in their area(s) of work, during their induction or before they undertake the activity. ❑ Ensure that there is a local area/School/Branch Hazard Listing(s) (or equivalent) documented, which: ❑ includes all the "static" activities, where a risk assessment is required in accordance with the Hazard Management – Risk Assessment Decision Tool; ❑ is available in the local area, in either hard copy or electronic copy; and ❑ is included in the local area/School/Branch induction process (as applicable). Note: Where the local area/School/Branch has a single overarching risk assessment, which includes all hazards and control measures (i.e. have adopted a control banding approach for a room/area) the Risk Assessment can be used as the Hazard Listing. Where there are no static activities a Hazard Listing is not required. ❑ Ensure all workers and students have access to risk assessment templates (i.e. Long Form and Short Form or equivalent template) electronically or in hard copy.

3.5.4 Process: Hazard Management – Stage 1: Identify hazards

Person Responsible		Actions
3.5.4.1	All workers	❑ Consider the activity/task you are about to undertake and determine if: ❑ it is a new process, item of plant/equipment or substance; ❑ you are unfamiliar with the method of work; ❑ it is to be conducted in a different workplace/environment to normal and modification to the workplace or process is required; ❑ you have concerns that the activity may place you or any other person at risk of injury/illness. If yes to any of the above ❑ Do not undertake the activity and proceed to Stage 2.

3.5.5 Process: Hazard Management – Stage 2: Assess the risk

Person Responsible	Actions

3.5.5.1 All workers,	❑ Determine if a risk assessment is required using the Risk Assessment Decision Tool.
	❑ Check the local area/School/Branch Hazard Listing(s) (or equivalent) for any existing risk assessments and either:
	  ❑ implement the existing controls; or
	  ❑ add any new hazard(s) and control measures to the overarching risk assessment (if control banding has been adopted); or
	  ❑ commence a new risk assessment if not on the Hazard Listing.
	
	If a new Risk Assessment is required
	
	❑ Determine if the activity is:

Static - constant	or	Dynamic
i.e. the activity is stable/ reasonably unchanging and conforms to the same course of action and control measures over a length of time. ❑ Nominate a responsible person for the risk assessment and add to the Hazard Listing. ❑ Complete the Hazard Management – Risk Assessment Long Form or equivalent template. ❑ Add the activity for use of plant/equipment or chemical to the Hazard Listing (or equivalent listing) in consultation with your Health and Safety Officer and Manager/Supervisor.		i.e. the activity is constantly changing, including once-off activities. ❑ Complete the Hazard Management – Risk Assessment – Short Form or equivalent template.

3.5.6 Process: Hazard Management - Stage 3: Control the risk

Person Responsible		Actions
3.5.6.1	All workers, in consultation with your Manager/ Supervisor	❑ Ensure that the control(s) selected provide the highest level of protection and reliability i.e. elimination, but if this is not reasonably practicable, minimise the risk(s), so far as is reasonably practicable. (See Hierarchy of control measures). ❑ Consult as far as reasonably practicable with the workers who carry out the activity, or are likely to be directly affected, including Health and Safety Representatives (if applicable), when controlling and reviewing the risk. ❑ Check if there are any relevant Approved Codes of Practice or Australian Standards which outline the controls which are to be followed, unless there is another solution which achieves the same or a better standard of health and safety. ❑ Check if there are any relevant HSW Handbook chapters which may also provide additional information/guidance. ❑ Ensure that safety procedures (or equivalent) are documented as part of the hazard management process, where specific steps/directions are required to perform the activity safely (e.g. operate hazardous plant/equipment, handle hazardous chemicals) using the Hazard Management – Safe Operating Procedure (or equivalent template). ❑ Check the residual risk rating after control measures have been determined. For any risk assessments where the residual risk is low or medium ❑ Obtain the relevant authorisations on the risk assessment. Staff created risk assessments Do not require Manager/Supervisor authorisation for low or medium residual risk. Student created risk assessment Require Manager/Supervisor (i.e. a staff member) authorisation for an activity where the residual risk is low or medium. (It is not appropriate for another student to authorise the risk assessment.) ❑ Conduct the activity and implement the identified control measures in accordance with the risk assessment. For any risk assessments where the residual risk is high or very high ❑ Do not commence the activity; ❑ Review the risk assessment; and ❑ Take action to minimise the risk further i.e. to medium/low. If not possible to reduce the residual risk from high or very high ❑ Advise the Manager/Supervisor and Head of School/Branch and provide a copy of the risk assessment with the rationale as to why the activity should continue. Do not conduct the activity until the appropriate level of formal authorisation has been given (see 3.5.6.2).

3.5.6 Process: Hazard Management: Stage 3: Control the risk (Continued)

Person Responsible		Actions
3.5.6.2	Head of School/Branch and if applicable Area Manager (See definitions) Vice-Chancellor and President	Where the residual risk is high or very high: ❑ Review the risk assessment. ❑ Determine additional controls which will reduce the risk and advise the Manager/Supervisor. <u>If it is not possible to reduce the risk</u>: ❑ Determine if the activity is to proceed or cease. <u>If the activity is to cease</u>: ❑ Advise the Manager/Supervisor accordingly. <u>If the activity is to continue</u>: ❑ Ensure the following authorisations are recorded on the risk assessment template: <u>High</u> Authorisation by the Head of School/Branch is required. <u>Very High</u> Authorisation by the Head of School/Branch and Area Manager and Vice-Chancellor and President are required. <u>Note</u> The cost of controlling a risk may be taken into account in determining what is reasonably practicable, but cannot be used as a reason for doing nothing to address the risk. You may select short-term control measures pending a long term solution. Where a signature is required, an email authorisation from the relevant Manager/Supervisor/Head of School/Branch is acceptable. Attach the authorisation email to the Risk Assessment template.

3.5.7 Process: Hazard Management: Stage 4: Monitor and review control measures

Person Responsible		Actions

3.5.7.1	Manager/ Supervisor for the area or responsible for the activity	❑ Ensure that control measures are and remain:
		  ❑ fit for purpose;
		  ❑ suitable for the nature and duration of the work; and
		  ❑ installed, set up and used correctly.
		❑ Review the control measures if:
		  ❑ a new/previously unforeseen hazard has been introduced; or
		  ❑ requested by a Health and Safety Representative; or
		  ❑ new legislation is introduced; or
		  ❑ new information becomes available which could eliminate or minimise the risk.
		❑ Ensure that risk assessments and controls are reviewed following an incident to determine if control measures are ineffective in controlling the risk in accordance with the HSW Handbook chapter Incident, near miss reporting and investigation.
		❑ Update the Hazard Listing(s) on a regular basis in consultation with the relevant Health and Safety Officer to ensure they remain current.

3.5.8 Process: Ongoing management of hazards

Person Responsible		Actions
3.5.8.1	Head of School/Branch (Any or all of these tasks can be delegated to School/Branch staff (e.g. local area Manager/Supervisor or Health and Safety Officer) however the Head of School/Branch must monitor the tasks on a regular basis to ensure they take place.)	❑ Ensure that workers are informed of the relevant hazards and control measures in the area of work as part of their induction program where they are exposed to, or required to complete the activity. This is to include the activities that are recorded on the School/Branch local area Hazard Listing(s) (or equivalent). ❑ Monitor that control measures are being implemented and provide additional supervision if/where required based on the level of risk and experience of the worker(s). ❑ Ensure that, when there is a change to the work place/work practice which is likely to give rise to a new or different health and safety risk, the activity, plant/equipment or chemical is assessed (using the Hazard Management – Risk Assessment Decision Tool), a risk assessment completed and training provided if required. ❑ Ensure that the School/Branch Annual Hazard Review Template, which is informed by the Hazard Listing(s), is completed when requested by the convenor of the University Health and Safety Committee. ❑ Ensure that, where a control measure requires regular programmed testing or maintenance, the activity is added to the School/Branch Schedule of Programmable Events (or equivalent), unless this requirement is centrally managed e.g. by Campus Services. ❑ Ensure that any training required by a risk assessment (e.g. Proficiency based training) is added to the School/Branch Training Needs Analysis (TNA) (or equivalent) and training provided to relevant workers in accordance with the HSW Handbook chapter HSW Training.
3.5.8.2	Workers	❑ Follow reasonable instructions, safety measures (e.g. lab rules) and safe operating procedures (where applicable) for any activity you are required to undertake. ❑ Assist in any hazard management process where required/requested by your Manager/Supervisor or other person with Health and Safety responsibilities (e.g. School/Branch Health and Safety Officer or member of the HSW Team.) ❑ Report to your Manager/Supervisor or Health and Safety Representative where you consider that a control measure is not effective in controlling the risks associated with any activity, or you have concerns that the activity may place you or any other person at risk of injury/illness.
3.5.8.3	Area Manager (as applicable) See definitions	❑ Ensure that the School/Branch is provided with the appropriate resources to manage and control operational risks, or determine if certain activities should proceed/cease. ❑ Take reasonable steps to understand the hazards and risks that have been identified and recorded by Head of School/Branch (or delegate) on the School/Branch Annual Hazard Review as part of your duties as an officer under the Work Health and Safety (WHS) legislation and as outlined in the University's HSW Due Diligence report.

3.5.9 Process: Documentation

Person Responsible		Actions
3.5.9.1	Head of School/Branch (Any or all of these tasks can be delegated to School/Branch staff (e.g. local area Manager/Supervisor or Health and Safety Officer) however the Head of School/Branch must monitor the tasks on a regular basis to ensure they take place.) (continued)	❑ Ensure there is a system for retaining static and dynamic risk assessments for the duration of the activity, Unless: ❑ the activity, plant/equipment or chemical/substance resulted in a notifiable or dangerous incident in which case all records, including risk assessments, are to be kept on file as part of the incident investigation documentation in RMSS. ❑ the activity related to: ❑ work in a confined space; ❑ work on energised electrical equipment; ❑ diving work in which case a copy of the risk assessment must be retained for at least 28 days after the work is completed. ❑ Ensure risk assessments pertaining to any item of registered plant identified in the Plant/Equipment Safety Management HSW Handbook Chapter Appendix E is kept for the life of the plant and transferred to any new owner of the plant. ❑ Ensure workers have access to current risk assessments, other guidance material, Safe Operating Procedures (where applicable) and the Hazard Listing(s) either electronically or in hard copy (e.g. by area, floor or School/Branch).

3.5.10 Definitions

Area Manager
Under the University of Adelaide Enterprise Agreement (as amended), Area Manager means Deputy Vice-Chancellors, Vice-President(s), Pro Vice-Chancellors, Executive Deans, Director Human Resources (and a person acting in these positions) and Institute Directors.

Control banding (CB)
CB is a technique which enables a School/Branch/area to group activities or locations together and to complete a single risk assessment, as the control measures eliminate or minimise the risk in the same way.
e.g. this technique may be used when grouping activities for similar equipment or chemicals to reduce the number of risk assessments required.

Dynamic activity
An activity characterised by constant change e.g. once-off activities or unique experiments.

Event
Any programmed activity which changes the environment/venue for which it was otherwise intended; or introduces a foreseeable safety hazard(s) due to the nature of the event/activity/function.

Hazard
Refers to a source of potential harm.

Hazard listing
A list of all static (i.e. constant/stable) activities where a risk assessment is required and the activity is performed in the same manner over time. This can be saved electronically or in hard copy but must be readily available to workers.
(Note: The Hazard listing(s) is to be included in the local area induction program for relevant workers.)

Hazardous chemical
A substance, mixture or article that satisfies the criteria for a hazard class in the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), including a classification referred to in Schedule 6 Work Health and Safety Regulations 2012 (SA), but does not include a substance, mixture or article that satisfies the criteria solely for one of the following hazard classes:
(a) acute toxicity – oral – cat 5
(b) acute toxicity – dermal – cat 5
(c) acute toxicity – inhalation – cat 5
(d) skin corrosion/irritation – cat 3
(e) serious eye damage/irritation
(f) aspiration hazard – cat 2
(g) flammable gas – cat 2
(h) acute hazard to the aquatic environment
(i) chronic hazard to the aquatic environment – cat 1 – 4
(j) hazardous to the ozone layer.

Hazardous manual activity
An activity that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing that involves one or more of the following:
(a) repetitive or sustained force
(b) high or sudden force
(c) repetitive movement
(d) sustained or awkward posture
(e) exposure to vibration

3.5.10 Definitions (Continued)

Hazardous plant

Any plant/equipment used for a work/task related activity that:

- has the potential:
  - to entangle, crush, cut/stab/puncture, trap, shear, tear or strike (i.e. safe-guarding is required);
  - for a pinch point to trap any part of the body or catch loose clothing, hair etc (e.g. conveyor, gears, loaders and other moving equipment);
  - for a worker to come into contact with fluids under high pressure;
  - to cause a serious burn/injury;
  - to expose the worker to live electrical conductors;
  - to expose the worker to gases/vapours/liquids/dusts/other substances triggered by the operation;
  - to explode or implode;
  - to exceed safe noise levels;
  - for the worker to adopt poor posture (see definition for a Hazardous manual activity);
  - to overturn, collide with another person or thing (e.g. moving powered plant);
- lifts or suspends a load;
- is an industrial robot or other remotely or automatically energised plant at the workplace;
- involves non-ionising radiation or high level magnetic fields;
- requires registration in accordance with Schedule 5 of the Work Health and Safety Regulations 2012 (SA).

Refer to the HSW Handbook chapter Plant/Equipment Safety Management for additional information.

Hierarchy of Control

The process to eliminate, or where this is not possible, manage the risks to as low a level as is reasonably practicable. They are listed below in order of most to least effective. See Appendix C.4.

Level 1:	Elimination (e.g. remove the hazard from the site)
Level 2:	Substitution (e.g. replace the item or substance or activity with a less hazardous one) Isolation (e.g. remove the opportunity of contact with the hazard by distance from work activities) Engineering (e.g. guarding, barriers, electronic guarding such as light curtains)
Level 3	Administration (e.g. Safe Operating Procedure, supervision, training, maintenance programs) Personal Protective Equipment (e.g. gloves, safety glasses, laboratory coats)

HSW Training

Training is provided at 3 different levels.

1. Information, instruction and training
   Provides general information to participants. This type of training is suitable where no proficiency, qualification or licence is required.
2. Proficiency based training
   Provides a higher level of instruction skill and/or risk associated with the activity. It will generally have a practical component to enable the trainee to observe the process from beginning to end, and then demonstrate back to their trainer/assessor that they are proficient/skilled to undertake the task or operate the equipment without supervision.
3. Competency based training (i.e. Statement of Attainment or licence)
   This type of training is required where the operator must attend formal training by an authorised or Nationally Recognised Training Organisation that will provide the trainee with a statement of attainment, qualification or licence following successful completion of the training. Examples may include: first aid training, forklift training, work associated with rigging, cranes, hoists, confined space entry, scaffolding, dogging, work at height, operation of load-shifting equipment, firearms, electrical, asbestos removal, licence to use or handle a radioactive substance.

Inherent risk

The associated risk before implementation of risk controls.

Proficiency (See HSW Training)

3.5.10 Definitions (Continued)

Reasonably practicable [WHS Act 2012, Section 18]
"in relation to a duty to ensure health and safety, means that which is, or was at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters including –

a) the likelihood of the hazard or risk concerned occurring; and
b) the degree of harm that might result from the hazard or risk; and
c) what the person concerned knows, or ought reasonably to know, about –
    i. the hazard or the risk; and
    ii. ways of eliminating or minimising the risk; and
d) the availability and suitability of ways to eliminate or minimise the risk; and
e) after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk."

Residual risk
The risk remaining after implementation of risk controls.

Risk
The possibility that harm (death, injury or illness) might occur when exposed to a hazard.

Risk assessment
The process of evaluating the probability and consequences of injury or illness arising from exposure to an identified hazard or hazards.

Risk control
Taking action to eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimising the risks so far as is reasonably practicable.
(A control measure minimises the risk either by reducing the likelihood and/or the consequence.)

Safety Procedure e.g. Safe Operating Procedure (SOP) or Safe Work Method Statement (SWMS)
A document setting out the requirements to carry out the work in a safe and healthy manner and in a logical sequence.

It must be able to be easily read by those who need to know what has been planned.
It is relevant to the following people:

- the worker carrying out the work; and
- the person who has management and control over the work.

A safety procedure (e.g. SOP or SWMS), if identified as a control measure, is to:

- identify the work;
- specify/address the identified hazards relating to the work;
- describe the measures to be implemented to control the risks;
- take into account the circumstances at the workplace that may affect the way in which the work is carried out;
- take into account emergency management arrangements where applicable; and
- be communicated to all workers who carry out the work.

Static activities
Activities which are constant, stable and unchanging. They conform to the same course of action and control measures over a length of time. e.g. the ongoing use of a specific item plant/equipment or chemical which is always present in the School/Branch/area of work and potentially used by a number of workers over time.

3.5.10 Definitions (Continued)

Worker (WHS Act 2012)
A person is a worker if the person carries out work in any capacity for a person conducting a business or undertaking, including work as –

- an employee; or
- a contractor or subcontractor; or
- an employee of a contractor or subcontractor; or
- an employee of a labour hire company who has been assigned to work in the person's business or undertaking; or
- an outworker; or
- an apprentice or trainee; or
- a student gaining work experience; or
- a volunteer; or
- a person of a prescribed class.

The person conducting the business or undertaking is also a worker if the person is an individual who carries out work in that business or undertaking.

Note: Higher Degree Research students and Academic Visitors are likely to be workers under the WHS Act (2012).

3.5.11 Performance Measures

The HSW Team will use the performance measures listed below to assist in identifying areas of success and/or where corrective action is required to meet the objectives and targets of this process.
The level of compliance with the chapter and effectiveness will be determined during the internal audit process.

References	Measure	Objective Evidence	Frequency	Indicator of success
See objective 3.5.1.1	All risk assessments identify the hazards associated with the activity, and the control measures address and manage each hazard identified, in accordance with the hierarchy of controls.	Risk Assessments for Static and dynamic activities as applicable.	As per the Internal audit plan	Success = 100% Less than 100% = Corrective action
See objective 3.5.1.2	A Hazard Listing(s) or risk assessments (if control banding is applicable) are held for each School/Branch area of work (as applicable) and include activities determined as static.	Hazard Listing(s) (if required) Risk assessments Note – If a School/Branch does not have any static activities requiring a risk assessment then a Hazard Listing is not required.	As per the Internal audit plan	Success = 100% Less than 100% = Corrective action

3.5.12 Useful information and resources

3.5.12.1	University related documents HSW Policy Statement HSW Handbook • Asbestos • Biological Safety • Boating Operations • Bullying at Work (Preventing and Responding to) • Chemical Safety and Management • Children in the Workplace • Confined Spaces • Contractor Safety Management • Diving • Drugs and Alcohol • Electrical Safety • Emergency Management • Events Safety Management • Field Work • First Aid • Firearms Safety Management • Health and Safety Representative • Higher Degree by Research • Hot Work • Incident, Near Miss Reporting • Induction (HSW) • Infectious and Communicable Diseases • Injury Management • Laboratory Safety • Manual Handling and Ergonomics • Noise and Sound Safety Management • Notifiable Occurrences • Personal Protective Equipment • Plant/Equipment Safety Management • Prevention of Falls • Radiation • Risk Assessment • Smoke-Free University • Student Placement • Temperature Extremes • Training • Travel Safety • Working Hours and Reducing Fatigue • Workplace Inspections
3.5.12.2	Related Legislation Work Health and Safety Act 2012 (SA) Work Health and Safety Regulations 2012 (SA) Approved Codes of Practice (including How to Manage Work Health and Safety Risks) Australian Standards
3.5.8.3	Useful Web-links RMSS SafeWork SA SafeWork Australia

Appendix A

HAZARD MANAGEMENT – RISK ASSESSMENT DECISION TOOL

1. Check the criteria listed in column A. If the criteria is applicable to the activity, then a formal (documented) risk assessment **is not** required. Complete the activity as outlined.
2. If column A is not applicable, then one or more of the hazards/criteria in column B will be relevant and a formal risk assessment **is** required. You will need to determine the nature of the activity (i.e. Static or Dynamic), complete and follow the instructions on the relevant risk assessment template.

COLUMN A

1. Is it **an item of plant/equipment** which is manufactured and being used in the way it was intended and is not defined as hazardous plant? (see definitions)

or

2. Is it **a chemical** which is being used and managed in accordance with the Safety Data Sheet and not defined as a hazardous chemical? (see definitions)

or

3. An activity which is considered low risk:
   - There is no expectation that an injury/illness will occur.
   - If there was an injury/illness, treatment would be very minor/negligible e.g. first aid treatment requiring a band aid.

If you have answered yes to the above criteria

NO FORMAL RISK ASSESSMENT IS REQUIRED

Complete activities safely and in accordance with the manufacturer's instruction and/or, SDS and training. Ensure your own safety and the safety of others.

COLUMN B

A FORMAL RISK ASSESSMENT IS REQUIRED

- The item of plant/equipment or chemical is used in a different way to how the manufacturer intended, or a chemical being used differently to the Safety Data Sheet; and/or
- The activity is an event or an activity which requires the co-ordination of a number of tasks which could impact on the safety of the workers or others in the vicinity of the activity; and/or
- The activity involves one or more of the following hazards:
  - Animal handling (unpredictable behaviour – kicks, bites)
  - Biological (pathogens, body fluids)
  - Boating, risk of drowning
  - * Confined space entry
  - * Diving work
  - * Electrical work on energised electrical equipment
  - Excavation (tunnel, shaft that could collapse)
  - Explosives
  - Fall from work at height which would result in injury
  - Fatigue (work related mental or physical exertion affecting function)
  - Hazardous chemicals
  - Hazardous manual activity
  - Hazardous plant
  - Hidden pipes, cables, wiring
  - High risk travel (DFAT 3 or 4)
  - Hot work/potential for uncontrolled fire
  - Isolation (work in a remote area, or on your own in an unfamiliar environment, rescue would be difficult.)
  - Noise/sound levels greater than safe exposure standards
  - Personal Threat (e.g. threat of harm or injury by another person)
  - Psychosocial hazards
  - Radiation
  - Temperature extremes

and/or

* Note: The risk assessment must be completed by a competent person

- There is uncertainty about the impact of, or what would occur by combining hazards, or known risks (e.g. water and power); and/or
- There is an incident/injury trend identified for the activity; and/or
- There is a change in a work practice or the work environment and there uncertainty about how a hazard(s) may result in injury or illness.

Determine if the activity is Static (constant/stable, performed in the same manner over time) or Dynamic (changed each time, once-off, short-lived).

For "Static" activities

- Check if there is an existing risk assessment.
  If held, follow the control measures as outlined; or
- Add any new hazard(s) and control measures to the overarching risk assessment (if control banding has been adopted);

If not,

- Complete a new risk assessment using Appendix C; and
- Add to the appropriate area/School/Branch Hazard Listing(s).

OR

For "Dynamic" activities

- Complete a short form risk assessment (Appendix D) or equivalent template and provide a copy to your Manager/Supervisor or as instructed.

(Note if the residual risk is high or very high complete Appendix C.)

If you require further information/assistance please contact your School/Branch HSO or the relevant Division/Faculty HSW Manager

Appendix B

HAZARD LISTING (for Static areas/activities which are constant, stable and unchanging) (Template)

- Each School/Branch/area is to identify the static areas/activities where there is a potential for harm/injury/illness. These should be grouped on listings that match local induction processes. Where relevant, "control banding" can be adopted for areas/activities which have similar physical/chemical characteristics and the control measures are identical. (e.g. how they will be handled, PPE and emergency spill requirements). It must be clear on the Hazard Listing that this approach has been adopted.
- The Hazard Listing can be collated by work area, floor, School/Branch to best suit the induction needs of the School/Branch and to meet the requirements of this chapter.
- Where there is a single overarching risk assessment for the School/Branch/area, this may be used as an alternative to the Hazard Listing, in lieu of creating an additional record, however it must be readily available to workers in the immediate work area (either electronically or hard copy) at all times.
- The area Manager/Supervisor or HSO or delegated staff member will maintain the Hazard Listing and ensure it meets the requirements of the Hazard Management chapter process for documentation (reference 3.5.9).

Note: This list does not include any risk assessments of a dynamic nature (e.g. a once-off activity).

SCHOOL/BRANCH/AREA LOCATION							
Name of risk assessment		Exact location(s)	Inherent Risk Assessment Rating	Responsible Person (Manager/ Supervisor)	Date risk assessment completed	Residual risk rating (Note high & very high require additional approvals)	Hyper-link to the risk assessment or reference/location to enable access to the completed risk assessment.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

HAZARD MANAGEMENT – RISK ASSESSMENT(LONG FORM)

Stage 1: Hazard Identification

		Residual risk rating L, M, H, VH	
Name or description of the activity(s) to be assessed			
Area, School/Branch Building/Room			
Workers completing the risk assessment. Name and contact details		Mobile/Phone	
		Mobile/Phone	
		Mobile/Phone	

- This template or equivalent template can be used. Please note that this list is not exhaustive, but can be used as the basis for your initial hazard identification.
- If you tick yes to any of the hazards listed below, then the hazard is to be transferred and addressed on Appendix C2.
  Where a number of activities have the same hazards, they may be grouped together on the same assessment and the same control measures applied to each.

Consider – is there potential for, or identified exposure to any of the following, as part of a process/activity

	Physical/Environmental Hazards		Plant and Equipment hazards
☐	Animals (e.g. hazardous wild animals, bees, snakes)	☐	Mobile lifting equipment or farm machinery
☐	Confined space entry (e.g. pit, tank, silo, entry through a hatch)	☐	Pressurised vessels/systems (e.g. autoclave, boiler)
☐	Fall from a height (e.g. ladder, elevated platform, cliff, scaffolding)	☐	Hazardous levels of heat or vibration (to whole or part body)
☐	Fire (potential for uncontrolled fire due to ignition sources)	☐	Hazardous plant (e.g. lathes, lasers, microtomes, cryostats,
☐	Flying or moving items/plant/vehicles, falling object(s)		or operations could result in amputation, eye injury, serious
☐	Hazardous terrain or environment including wet/slippery surfaces		laceration, crushing injury)
☐	Lighting/visibility is compromised and hazardous		Radiation hazards
☐	Noise or sound levels > 85dB(A) or peak level of greater than	☐	Sealed sources or unsealed sources
	135 dB(C) for any period of time	☐	Artificial sources (UV)
☐	Temperature or weather extremes (e.g. hypothermia, major burns)		Biological hazards (e.g. via inhalation, contact, digestion)
☐	Isolation (e.g. work in a remote area, difficult to access work site,	☐	Contamination (e.g. pathogens, body fluids)
	or a rescue effort would be difficult in the event of an emergency.	☐	Animal handling (e.g. bites, allergies)
☐	Boating and/or Diving (e.g. risk of drowning)	☐	Other
	Communications		Chemical hazards
☐	Communication problems (e.g. by virtue of location or isolation)	☐	Explosive substances
	Electrical	☐	Flammable substances, gas, airborne contaminants
☐	Electric shock	☐	Toxic or asphyxiate gas (e.g. CO_2 including dry ice, liquid N_2)
	Ergonomic/Hazardous Manual activity/task(s)	☐	Respiratory irritants (e.g. nanotech, dust, asbestos)
☐	Work requiring repetitive force or movement	☐	Chemical spraying (e.g. agricultural, pesticides)
☐	Sustained force/posture or awkward posture	☐	Prohibited and restricted carcinogens requiring a permit
☐	Working with animals, unpredictable/unbalanced loads	☐	Hazardous chemicals (not included above)
☐	Transfer of item(s) up or down stairs, using both hands or	☐	Other
	requiring the use of lifting equipment from one level to another		Activity combines a number of different hazards, and
	Stress/Duress hazards		the impact/results of interaction is unknown e.g. mixing
☐	Personal threat e.g. aggressive behaviour, abuse, threat, assault		chemicals or recognised as a risk e.g. water and electricity.
	(includes home visits)	☐	Specify -
☐	Fatigue e.g. from excessive work related mental/physical exertion		High Risk Travel
	Remote work location or working in isolation	☐	Destination is rated DFAT 3 or 4 (High/Very High)
☐	Medical emergency, difficult to administer/obtain first aid		High risk work licence required in accordance with WHS Regs
	gain assistance e.g. access to medical facilities	☐	Boom-type elevating work platform, scaffolding, dogging,
	Other		crane and hoist operation, reach stackers, forklift operation,
☐			pressure equipment operation.

☐			
☐		☐	No hazards identified. No risk assessment required.

HAZARD MANAGEMENT

Stage 2 and Stage 3 – Risk Assessment and Control

Record the potential hazards/issues identified in Hazard Identification Process on Appendix C1 and When and where the hazard is present (i.e. when is the worker exposed?)	Inherent risk assessment rating Before controls are implemented (Refer to the risk assessment Tables – Appendix C3) L, M, H, VH	List the control measures implemented (i.e. in place) • Control measures are to be in accordance with the Hierarchy of Control. Refer to Appendix C3 for examples. • Choose the control(s) that most effectively eliminate the hazard or minimises the risk. • Record the control measures in place under the relevant control measure (e.g. list in order under the following headings - substitution, isolation, engineering, administrative, Personal Protective Equipment). • Ensure that control measures do not introduce new hazards.	Residual risk rating After controls in place The highest rating is to be transferred to the top of page C1.

Staff related activities (Note – Low and Medium Residual Risk does not require Manager/Supervisor authorisation)			Student related activities		
Author	Name and Signature		Author	Name and Signature	
High Residual Risk – Authorised by Manager/Supervisor	Name and Signature/authority		Low and Medium Residual Risk – Authorised by Manager/Supervisor	Name and Signature/authority	
High Residual Risk – Authorised by Head of School/Branch	Name and Signature/authority		High Residual Risk – Authorised by Head of School/Branch	Name and Signature/authority	
Very High Residual Risk – Authorised by VC&P	Name and Signature/authority		Very High Residual Risk – Authorised by VC&P	Name and Signature/authority	

HAZARD MANAGEMENT

RISK ASSESSMENT TABLES

Three essential steps are taken:
1. The probability or likelihood of an incident occurring is evaluated;
2. The severity of the potential consequences is calculated or estimated;
3. Based on these two factors, the risks are assigned priority for risk control through the use of a risk rating.

Risk assessment involves examining and evaluating the likelihood/severity/consequence in order to prioritise and implement adequate controls. The risk matrix has been adopted based on the principles of AS/NZS ISO 31000 (2009) Risk Management – Principles and Guidelines and Code of Practice "How to Manage Work Health and Safety Risks (2012).

Likelihood Table

CATEGORY	DESCRIPTION
Almost certain	There is an expectation that an event/incident will occur.
Likely	There is an expectation that an event/incident **could occur** but not certain to occur.
Slight	This expectation lies somewhere in the midpoint between "could" and "improbable".
Unlikely	There is an expectation that an event/incident is doubtful or **improbable** to occur.
Rare	There is no expectation that the event/incident will occur.

Consequences Table

CATEGORY	DESCRIPTION
Severe	Injury resulting in death, permanent incapacity.
Major	Injury requiring extensive medical treatment, hospitalisation, or activities could result in a Notifiable occurrence.
Moderate	Injury requires formal medical treatment (hospital outpatient/doctors visit etc), activities could result in an Improvement Notice.
Minor	Injury requires first aid.
Negligible	Injury requires minor first aid (e.g. bandaid), or result in short term discomfort (e.g. bruise, headache, muscular aches etc), no medical treatment.

Risk matrix

Likelihood	Consequences				
	Negligible	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	Very High	Very High	Very High
Likely	Medium	Medium	High	Very High	Very High
Slight	Low	Medium	High	High	Very High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Medium	Medium

<u>If the level of risk is assessed as high or very high</u>
- ❑ Stop the activity; or
- ❑ Tag out the plant/equipment; or
- ❑ Secure any chemical; and
- ❑ Determine if the activity is to:
  - ❑ continue; or
  - ❑ cease

in consultation with your Manager/Supervisor.

Follow the process in 3.5.6.1 where the risk cannot be reduced to medium or low.

HAZARD MANAGEMENT

HIERARCHY OF RISK CONTROL

Hierarchy of control			Examples of control measures	
HIGHEST	Level 1	Elimination	• Not introducing the hazard into the workplace. • Designing out the hazards before they are introduced. • Removing the hazard completely. • Not conducting the activity.	MOST
	If this is not practicable then ↓			
	Level 2 Where it is not reasonably practicable to eliminate the hazards and associated risks.	Substitution	• Replacing or substituting the hazard with something safer.	
		Isolation	• Isolating the hazard from the people by distance or using barriers.	
		Engineering	• Installing/using a control measure of a physical nature, including a mechanical device or process e.g. trolleys, hoists, guards, residual current devices, fume-hoods, extraction/ventilation systems, RCD protection.	
LEVEL OF HEALTH AND SAFETY PROTECTION	Level 3 These control measures do not control the hazard at the source. They rely on human behaviour and supervision, and used on their own tend to be the least effective in minimising risks.	Administrative	• Documenting a standard operating procedure (SOP) and include in the induction program for all staff required to perform the activity • Developing a proficiency based training program if required by the risk assessment (see definitions) (Workers may be trained against the SOP Appendix E or other assessment criteria.) • Training workers to use control measures implemented when carrying out the activity • Introducing a second operator • Providing signage or warning labels • Restricting access • Maintenance and testing programs • Changing the work organisation e.g. relocating equipment or items, rotating workers between different activities	RELIABILITY OF CONTROL MEASURES
LOWEST	Exposure is only limited if the worker wears and uses the PPE correctly.	Personal Protective Equipment (PPE)	Requiring the use of one or more of the following: • ear protection (ear muffs) • respirators • face masks • hard hats/helmet • gloves, aprons • eye protection (glasses, shield, visor) • non-slip footwear • appropriate clothing	LEAST

For further examples and explanation on the Hazard Management and Risk Control process, please refer to the Code of Practice for How to manage WHS Risks (2011).

HAZARD MANAGEMENT – RISK ASSESSMENT (SHORT FORM)

You require a risk assessment for every activity where you are using an item of plant/equipment/chemical in a different way to a constant/static activity (i.e. the activity is dynamic - once off and not on the School/Branch/Area Hazard Listing or covered by an overarching risk assessment). A new short form risk assessment (or equivalent) is to be completed if any new hazards are introduced during this activity.

Location: School/Branch Building/room/area		Date conducted	/ /
Name or description of the risk assessment activity			
List plant/equipment/ chemical(s) used			
Author, person(s) completing the risk assessment		Mobile/ Phone	

Step 1: Identify the hazards (tick as applicable)	☐ Falling, flying, sharp objects	☐ Moving powered plant/lifting equip.
☐ Animals (e.g. unpredictable behaviour, bites, stings, kicks)	☐ Fatigue (e.g. mental or physical exertion)	☐ Noise >85dB(A)
☐ Biological (e.g. pathogens, body fluids)	☐ Hazardous chemical exposure/radiation	☐ Poor lighting, hazardous terrain
☐ Communication (e.g. location, isolation)	☐ Hazardous manual handling	☐ Security, aggression, personal threat
☐ Electrical equip. used outdoors, potential for electric shock	☐ Hazardous plant/equipment	☐ Temperature extremes, burns
☐ Fall from one level to another	☐ Hot work	☐ Travel local/interstate
☐ Other:		
☐ Other:		☐ No hazards identified

Step 2: Assess the inherent level of risk based on the likelihood of an incident occurring and the consequence (see descriptors for likelihood and consequences overleaf). Tick the highest risk rating assessed for the hazards identified, without controls in place.

Likelihood of exposure	Consequences – level of seriousness of the injury following exposure to the hazard(s)									
	Negligible		Minor		Moderate		Major		Severe	
Almost certain	☐	Medium	☐	High	☐	Very High	☐	Very High	☐	Very High
Likely	☐	Medium	☐	Medium	☐	High	☐	Very High	☐	Very High
Slight	☐	Low	☐	Medium	☐	High	☐	High	☐	Very High
Unlikely	☐	Low	☐	Low	☐	Medium	☐	Medium	☐	High
Rare	☐	Low	☐	Low	☐	Low	☐	Medium	☐	Medium

Step 3: Manage the risk by selecting the appropriate level(s) of control. Tick and highlight as applicable.

Action(s) required to minimise the risk		
Level 1: ☐ Elimination If this is not practicable, then:	☐ Work process to cease. Advise your Manager/Supervisor of the outcome and determine next steps.	
Level 2: ☐ Substitution	☐ Substituted the hazard with a safer option (please specify)	
Level 2: ☐ Isolation/Engineering	☐ Barrier/guard/shield installed	☐ Trolley/hoist/mechanical aid used
	☐ Power/services isolated	☐ Fume hood used
	☐ RCD protection provided/installed	☐ Emergency stop button/device, emergency shower
	☐ PC2 Lab ☐ Communication equipment	☐ Other:
Level 3: ☐ Administrative	☐ SOP completed & attached (see Appendix E)	☐ Licence/competency/proficiency (record held on file)
	☐ Safety Data Sheet attached	☐ Restricted/secure access
	☐ Signs/warning labels displayed	☐ Training/information provided (including Induction)
	☐ Maintenance and testing program in place	☐ Introduced a second operator
	☐ First aid kit, spill kit on site	☐ Other:
Level 3: ☐ Personal Protection	☐ Face mask ☐ Gloves ☐ Hearing protection ☐ Overalls ☐ Other:	☐ Glasses/shield ☐ Gown ☐ Long sleeves ☐ Helmet ☐ Steel capped/enclosed footwear ☐ Other:

Step 4: Calculate the residual risk rating after the abovementioned control measures are in place.

☐	Very high Staff and students refer to Manager/Supervisor	☐	High Staff and students refer to Manager/Supervisor	☐	Medium Staff continue with activity Students refer to Manager/Supervisor	☐	Low Students refer to Manager/Supervisor

Step 5: Sign off by author and relevant authority

Author		Manager/Supervisor (where required)	
Head of School/Branch (Required for residual high risk rating)		Vice-Chancellor and President (Required for residual very high risk rating)	

Proof of hazard identification and risk assessment is required for this activity
File your completed risk assessment as instructed by the Manager/Supervisor of your area until the activity is completed or as required by your area.

APPENDIX D (Page 2 of 2)

HAZARD MANAGEMENT – SHORT FORM RISK ASSESSMENT

Descriptors for assessing the level of risk

Assess the level of risk based on the likelihood of an incident occurring and the consequence			
Likelihood Table		Consequences Table	
Almost certain	There is an expectation that an event/incident will occur.	Severe	Injury resulting in death, permanent incapacity.
Likely	There is an expectation that an event/incident could occur but not certain to occur.	Major	Injury requiring extensive medical treatment, hospitalisation, or activities could result in a Notifiable occurrence.
Slight	This expectation lies somewhere in the midpoint between "could" and "improbable".	Moderate	Injury requires formal medical treatment (hospital outpatient/doctors visit etc).
Unlikely	There is an expectation that an event/incident is doubtful or improbable to occur.	Minor	Injury requires first aid.
Rare	There is no expectation that the event/incident will occur.	Negligible	Injury requires minor first aid (e.g. bandaid), short term discomfort (e.g. bruise, headache), no medical treatment.

Notes (if required)

Appendix E

HAZARD MANAGEMENT – SAFE OPERATING PROCEDURE (SOP)

NAME OF THE TASK/ACTIVITY					DATE:
LOCATION					Insert photo (Optional)
RISK ASSESSMENT (RA) NAME & NUMBER					
Residual risk rating on the RA	☐ Low	☐ Medium	☐ High	☐ Very High	
Hazards identified on the RA					

PERSONAL PROTECTIVE EQUIPMENT

[detail which PPE is required and when it is to be used]

DESCRIBE, IN SEQUENCE, STEPS TO COMPLETE THE ACTIVITY SAFELY

Pre-operational checks

Operational checks/steps to complete the activity from start to finish (including transport and waste disposal where relevant)

On completion of work – steps to make safe (including clean up, any waste disposal & service/maintenance requirements)

Emergency and Spill Procedures, Transport or storage requirements (where relevant), First aid/Medical

Prepared by

People involved in the drafting of this SOP			
Person authorising the SOP	Name:		Signature
	Position:		

This Safe Operating Procedure must be reviewed after any incident/injury associated with this activity or when a risk assessment is reviewed.