University of South Australia

WHS PROCEDURE

Managing workplace health and safety risks

1. Purpose

The purpose of this procedure is to describe the University of South Australia's overall framework and approach to managing health and safety risks in university workplaces.

2. Scope

This procedure is applicable to all people carrying out work in university workplaces, including staff, students, contractors and volunteers.

3. Definitions

Hazard – is a situation or thing that has the potential to harm a person, the property or the environment. In practice the term **Risk** (see definition below) is often used in place of **Hazard**. Recognising this, reference is often made to **Hazards/Risks** in regulations, codes and this procedure.

Hazard Register – An overview document recording a summary of hazards, risk priorities, and risk controls required that reflects how risk is managed within Academic/Central Units and Research Institutes.

Hierarchy of risk controls – a ranking of risk control methods from the highest level of protection and reliability to the lowest. Under the WHS Regulations we are required to work through this hierarchy when managing risks.

Plant – is a category of hazard defined in the WHS Act, 2012 as including any machinery, equipment, appliance, container, implement or tool, and any component, or anything fitted or connected to any of those things. It does not include any equipment that is both hand held and hand powered.

Risk – is the probability (likelihood) of harm or damage occurring from exposure to a hazard, and the likely consequences of that harm or damage.

Reasonably practicable – As defined in section 18 of the WHS Act, ***reasonably practicable*** means that which is, or was at a particular time, reasonably able to be done to ensure health and safety, taking into account and weighing up all relevant matters including:

- the likelihood of the hazard or the risk concerned occurring
- the degree of harm that might result from the hazard or the risk
- what the person concerned knows, or ought reasonably to know, about the hazard or risk, and ways of eliminating or minimising the risk
- the availability and suitability of ways to eliminate or minimise the risk
- 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.

See reference (section 7): *How to determine what is reasonably practicable to meet a health and safety duty*, Safe Work Australia, May 2013.

Risk assessment – is the process of evaluating the likelihood and consequences of injury or illness arising from exposure to an identified hazard.

Risk control – is the elimination or minimisation of risk associated with an identified hazard.

Residual risk – the risk still remaining after the implementation of control measures. In the case of effective controls the residual risk is always lower than the pre-controlled risk. In university workplaces controls should be introduced or improved until the residual risk is negligible/not significant.

Risk rating – the process using a risk matrix or table that produces a risk level or priority for the activity. This is a combination of the consequences of a risk and the likelihood those consequences will occur.

SOP – known variously as a Safe Operating Procedure, Standard Operating Procedure or Safe Work Procedure, it is a workplace document which lists the job, task or process steps and the risk control measures necessary to perform these steps safely.

Workplace – anywhere where university staff or students conduct work. Workplaces include Academic Units, Central Units and Research Institutes. A workplace includes work environments in the field, offshore, in placements, or in teaching or research facilities shared with other organisations.

4. Roles and responsibilities for managing workplace risks

Executive Deans, Directors and General Managers are responsible for:

- implementing this procedure in their area of responsibility and accountability
- consulting and communicating with staff and others on management of workplace hazards/risks
- ensuring good awareness of hazards in their area of responsibility
- ensuring health and safety risks are adequately controlled
- monitoring and reviewing effectiveness of risk controls
- allocating resources as required for management of hazards/risks.

Staff are responsible for:

- not placing themselves or others at risk of ill health or injury
- reporting any hazards associated with the working environment, work tasks or activities to their supervisor as soon as becoming aware of them
- participating in the development of appropriate risk control measures for identified hazards to eliminate or minimise risk
- using control measures as required.

Students conducting research projects are responsible for:

- identifying all hazards associated with their respective research projects in conjunction with their Academic Supervisor
- ensuring that all identified risks are appropriately controlled prior to commencing their research activities.

Deans of Research are responsible for:

- ensuring all hazards associated with student research projects are identified in conjunction with the research student
- ensuring that all identified risks are appropriately controlled prior to the research student starting research activities.

5. Procedure

5.1 The general approach

A safe and healthy workplace only occurs when there is a planned and systematic approach to managing risks. We firstly need to understand our exposures to safety risks in our workplaces and what the harmful consequences could be. Then we must do whatever is reasonably practicable to either eliminate or minimise the work health and safety risks following the hierarchy of controls.

A proactive approach to managing risks is encouraged, that is: anticipating hazards/risks, planning ahead and implementing control measures before work starts or any significant exposure to risk occurs. We also need processes in place to fix hazards as they are found, for example, from workplace inspections or hazard/near miss reports.

Practical advice on applying the principles of risk management are presented in guidance material published by Safe Work Australia (see References), in particular the Approved Code of Practice *How to Manage Work Health and Safety Risks*.

Risks must be managed in compliance with a wide range of legislative requirements set out in the WHS Act, WHS Regulations and Approved Codes of Practice (refer to the Safety & Wellbeing website). Australian Standards represent industry guidance which should be followed in the same manner as approved codes of practice unless the advice is assessed as not applicable or not the most effective in the context of our university workplaces.

Within the framework of the Safety Management System the University has implemented a Managing Risks in the Workplace Program comprising procedures, guidelines and manuals supported by training courses and various tools such as checklists and forms. These documents and tools as posted on the Safety & Wellbeing website should be referred to and applied in workplaces where appropriate.

5.2 The four-step cycle of risk management

The risk management process follows a four-step process as shown in this diagram taken from *How to Manage Work Health and Safety Risks*.

These four steps are:

1. **identify hazards** – what could cause harm?
2. **assess risks** if necessary – how serious could the harm be and how likely?
3. **control risks** – what are the most effective control measures that are reasonably practicable in the circumstances?
4. **review control measures** – Are controls working as planned?

As shown in the diagram, the central core of risk management is **management commitment**. Managers need to lead and support the risk management process in their area of responsibility and provide adequate resources for implementation of the necessary control measures.

Consultation with university personnel performing work must occur during all four steps. This participation is critical as it provides an opportunity to draw upon individual experience, skills, knowledge and ideas with a view to finding practical control measures.

Many work-related hazards and their associated risks are well known and have well established and accepted risk control measures. In these situations, it is not essential to formally assess the risks. It may be sufficient to simply implement the controls in accordance with the relevant legislation, code of practice, standard or industry practice as applicable in the university context.

Controlling risks is to be carried out in accordance with the **hierarchy of controls** (see below). An explanation of the hierarchy of controls and guidance on its application is provided in *How to Manage Work Health and Safety Risks*. Our first aim is to eliminate a hazard, which is the most effective control. If this is not reasonably practicable, we must minimise the risk by working through the other alternatives in the hierarchy.

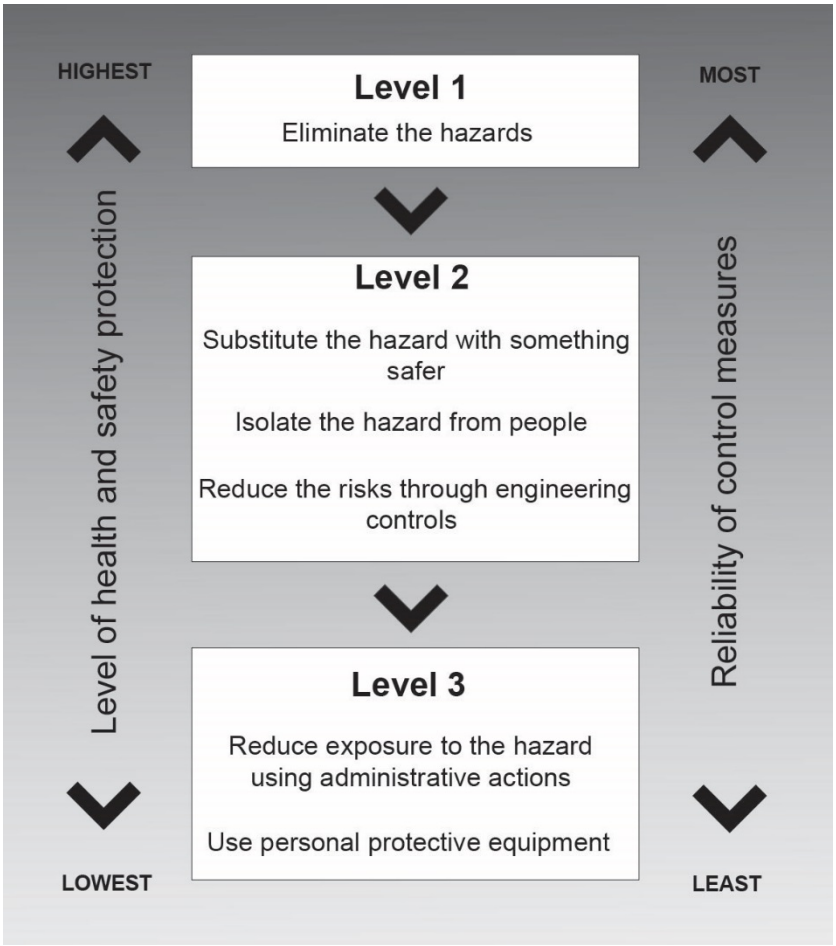

Diagram: The Hierarchy of Controls

5.3 The Workplace Hazard Register

The Hazard Register template, Form WHS1, is to be used by Academic/Central Units and Research Institutes to plan, prioritise and monitor overall management of local hazards/risks. The Hazard Register helps the Executive Dean or Director to meet their responsibilities in leading health and safety planned activities under the Local Action Plan. Actions identified in the Hazard Register to introduce or improve risk controls should be transferred to the Local Action Plan unless the action can be implemented immediately or within a short time.

The Hazard Register is an overview document recording a summary of hazards, risk priorities and controls required. Day-to-day hazards which are encountered and need fixing would not normally be entered on the Hazard Register. The more significant hazards which cannot be fixed immediately and safely by a competent person must be reported and followed up using the online Hazard/Incident Reporting & Investigation System. In some instances, the Hazard Register and/or Local Action Plan may need to be updated.

The Hazard Register should be revisited regularly in consultation with staff and research students at the same time as progress is reviewed against the Local Action Plan. A full review of the Hazard Register is to be carried out at least annually.

Each specific hazard (e.g. an item of plant or a chemical process) will require an informal or formal assessment of the risk it poses, and implementation of measures to control that risk. (A 'formal' risk assessment involves completion of university WHS forms or an equivalent systematic process). Some higher priority risks may warrant their own dedicated risk management plan across a workplace, e.g. laboratory or workshop spaces. Information from these more detailed layers of risk management may need to be taken into account in preparing and maintaining the Hazard Register.

Updating of the Hazard Register may be required when:

- a new hazard is introduced into the workplace or an existing hazard eliminated
- changes occur to the workplace or the way work is organised that may introduce new hazards
- staff or research students, or an elected health and safety representative, request a review of risk management for one or more hazards
- a control measure does not appear to be effective
- the understanding of certain hazards changes provoking a need to review the applicability of previous risk assessments and risk controls
- new or changed procedural or regulatory requirements are introduced for management of certain risks
- trend analysis of incidents identifies a need.

5.4 Managing risks from specific hazards

While the Hazard Register facilitates the overall workplace risk management of categories or types of hazards, individual hazards will need to be managed. For example, fieldwork may be a category of hazard, but each field trip may need to be individually risk assessed with risk controls tailored to the specifics of that field trip.

Under the University Managing Risks in the Workplace Program a variety of registers, forms and checklists are provided to assist workplaces follow the risk management steps described in *How to Manage Work Health and Safety Risks*. Further guidance is available in a number of approved Codes of Practice advising on risk management practices for a range of hazards such as hazardous manual tasks, hazardous chemicals and electrical risks. A list of these codes is referenced in section 7 of this procedure.

5.4.1 Managing hazards before they enter the workplace or before work starts

The following forms are used to assess risks and determine controls prior to commencing a hazardous project or before purchasing a hazardous item:

- WHS70: Project Proposal Safety Authorisation
- WHS79: Pre-Purchase Checklist for Design, Plant and Substances
- WHS15: Project using Hazardous Chemicals Requiring Chemicals Approval
- WHS22: Research Proposal Requiring Radiation Approval.

5.4.2 Forms to assist risk assessment and control

A range of forms are provided to assist workplaces with risk assessment and control for specific hazards. The three principal forms are:

- WHS2: General Risk Assessment
- WHS12: Chemical Process Risk Assessment and Control
- WHS41: Plant Hazard Identification and Risk Assessment.

All three forms guide the user through the risk management steps:

- identify the hazards involved
- assess the risks (e.g. during each step of a process) making use of a risk rating matrix
- determine suitable control measures to reduce the residual risk to negligible or not significant
- list required control measures that are not already in place
- add these controls to an action plan (these actions may be transferred to the Local Action Plan) allocating a person responsible and signing-off when completed
- record those consulted in conducting the assessment
- obtain approval by a responsible person
- set a date for review of the completed form.

A team-based approach should be used to conduct the process with group discussion on the risks and controls. The team might include but not be limited to:

- the responsible supervisor
- the person most familiar with the task or item being risk assessed
- an elected health and safety representative where applicable
- the campus WHS consultant should further expert advice be required.

A responsible person (e.g. principal researcher, head of research group, technical services manager, team leader) is to sign-off the form acknowledging that in their judgement a sound process has been followed to arrive at risk controls which result in negligible or not significant residual risk. A person with sufficient authority should approve additional resources for any risk controls that needs to be implemented, e.g. expenditure for extra guarding on an item of workshop plant.

Refer to the Safety & Wellbeing website for risk assessment and control forms in relation to other hazards.

5.4.3 Safe Operating Procedure (SOP) development

A SOP is often selected as a key risk control for many hazards following assessment. The WHS SOP Development procedure and form WHS8 assist in developing a safe operating procedure by analysis of each step in a task, process or job and identifying the risk controls needed at each step. Form WHS8 can be used as your final SOP, or alternatively, the safety steps can be integrated into a standard operating procedure or summarised in your own SOP sheet or safe work rules.

Note that a SOP may need to be updated to reflect any changes made after review of a risk assessment, for example, where controls have changed and require a change to the safety steps.

5.4.4 Registers informing of the presence of a workplace hazard

Registers are used to provide information on the presence of a hazard. Under the University Managing Risks in the Workplace Program, registers need to be maintained in each workplace for plant, hazardous chemicals, sources of ionising radiation and electrical equipment. Facilities Management Unit maintains an Asbestos Register and Confined Space Register.

5.4.5 Monitoring the workplace for new hazards and ineffective controls

Once a planned and systematic system is in place to manage the full range of local hazards and associated risks, continuous monitoring is required to detect new hazards and highlight any ineffective controls. If an issue is found, corrective action should be taken to fix the problem. If the action will take more than a few weeks the action should be recorded and progress monitored through to completion using the Local Action Plan.

Periodic and systematic monitoring to be undertaken by local areas encompasses:

- reporting and investigation of hazards and incidents through the Hazard & Incident Reporting & Investigation System, and regular analysis of reports generated from the system
- regular, scheduled workplace inspections (six monthly for low risk and quarterly for high risk environments WHS16 & 17)
- annual radiation audits (WHS63)
- contractor site observation (WHS77) (mainly used by Facilities Management Unit)
- ongoing maintenance, measurement and testing of plant and equipment and associated risk controls (e.g. testing of interlocks, electrical testing of equipment)
- workplace monitoring, where necessary, for levels of hazardous agents such as noise or airborne chemical concentrations
- undertaking corrective actions identified from internal and external safety audits.

5.4.6 Review risk controls

Work health and safety risk management should be an ongoing and continuously improving process. To ensure effectiveness in eliminating or minimising risk, controls need to be reviewed from time to time and revisions made where appropriate. For the same reasons that the workplace Hazard Register may need to be updated (see section 5.3), the risk assessment and control measures for an individual hazard may have to be reviewed. As mentioned in section 5.4.2 each completed risk assessment and control form/checklist should specify a review date which reflects the time which may elapse before a review is conducted. Under the WHS procedure *Document Control & Record Management* (see Safety & Wellbeing website) any controlled WHS documentation requires review at least every 3 years.

6. Performance Measures

- All university workplaces have a current Hazard Register in place.
- Workplaces conduct periodic workplace inspections at the required frequency for the type of work environment.
- Risk assessments have been completed in each University workplace for each item of plant and each chemical process involving hazardous chemicals (using forms WHS41 and WHS12, respectively, or their equivalent).
- Additional risk control measures listed in the Hazard Register have been implemented within the required timeframes within each university workplace.
- Each workplace has conducted an annual review of the Hazard Register.

7. References

For further advice on managing risks in university workplaces, including procedures, guidance, forms and training courses, please visit the Safety & Wellbeing website.

Safety & Wellbeing website

Hazard/Incident Reporting & Investigation System

SafeWork SA Resources—WHS legislation and the following Approved Codes of Practice:

- How to Manage Work Health and Safety Risks
- Hazardous Manual Tasks
- Managing the Risks of Falls at Workplaces
- Managing Noise and Preventing Hearing Loss at Work
- Managing the Work Environment and Facilities
- How to Manage and Control Asbestos in the Workplace
- Managing Risks of Plant in the Workplace
- Managing Risks of Hazardous Chemicals in the Workplace
- Safe design of structures
- Managing electrical risks at the workplace.

Reference: *How to determine what is reasonably practicable to meet a health and safety duty*, Safe Work Australia, May 2013.