

Risk Management Program

March 2015

Introduction

Monash University's Victorian campuses are all governed by the Victorian OHS Act 2004 and its subordinate regulations and codes of compliance. An inherent part of all OHS legislation is the requirement for workplaces to control the hazards its activities may pose to the health and safety of staff, visitors, contractors and students.

The Risk Management process is designed to assist you identify the hazards, assess the risks and determine the controls to reduce the risk.

The occupational health and safety risks must be identified and eliminated where possible or otherwise minimized. When the hazard cannot be eliminated, a combination of primary and secondary controls provides the safest option for reducing the risk of exposure to a hazard. Reduction of risk is best done using the Hierarchy of Controls.

Primary controls are those which make the environment safer by controlling or restricting the impact of the hazard on those associated with the work activity. Primary controls are described in the top section of the hierarchy and include Substitution, Isolation and Engineering.

Secondary controls assist the worker to be safer, in the case of Administrative controls or act as the last layer of protection to those exposed

to the hazard in the case of Personal Protective Equipment. These are less reliable than primary controls, but still improve safety.

The primary aim of the risk assessment process is to ensure the safety of all tasks in the workplace. The end result of a risk assessment is the implementation and maintenance of appropriate risk controls.

When to do a risk assessment at Monash

A risk assessment must be undertaken for all activities at the university where there is a reasonable OHS risk. It is expected that a risk assessment is completed for:

- honours and post-graduate projects;
- off-campus activities;
- research activity involving:
 - animals;
 - chemicals;
 - biologicals;
 - radiation;
- equipment and machinery;
- manual handling tasks;
- psychological hazards.

How to do a risk assessment at Monash

If the risk you are assessing is a common risk at Monash University there may be a pre-existing risk assessment available to use as guidance.

To do a Risk Assessment, this step by step process should be followed:

1. Establish what process is being assessed. If there is a Standard Operating Procedure for the task, make it available.
2. Involve people that know about the process and the hazards associated with it.
3. Print out or open an electronic copy of the Risk Assessment Worksheet.
4. Fill in the details of at the top of the worksheet, and enter the names of the people involved as the Risk Assessment Team.
5. Identify what hazards are associated with the process. There are many hazards listed on the worksheet, but there may be additional hazards. Take into account hazards associated with:
 - a. Installation;
 - b. Operation;
 - c. Waste generation;
 - d. Associated equipment, tasks or activities that may need to occur as part of the process; and
 - e. Decommissioning.

Enter the hazard in column 1 of the second page of the Risk Assessment Worksheet and the identified hazards in column 2. More rows can be added as required.

6. Seek information on the hazards identified. Some examples of places to look are your Risk Assessment Team, Supervisor, Safety Officer, knowledgeable colleagues, Monash OH&S website, [OHS Consultant/Advisor](#), other organisations with similar operations, Victorian WorkCover Authority, Safe Work Australia, Australian Standards, and the internet.
7. Identify what controls are in place to reduce the likelihood and consequences. Enter these controls under column 2.
8. Assess the risk by referring to risk matrix (Figure 1). Estimate the likelihood of an injury or negative outcome occurring with the current controls in place. Enter this in column 3. Estimate the consequences of the injury or negative outcome occurring with the current controls in place. Enter this in column 4. Using risk matrix (Figure 1) and the estimates of likelihood and consequences, calculate the risk. Enter the risk in column 5. For additional information on Chemical, Radiation and Biological hazards, please refer to the appendix.
9. If possible, eliminate the hazards associated with the process. If all hazards are eliminated then you have finished your risk assessment.
10. Determine controls to reduce the risk. There are many suggested controls for a variety of hazards listed in the appendix of this

document. Also refer to your resources listed in step 6 for further information.

11. List the proposed controls in column 6 of the risk assessment worksheet.
12. Nominate a person to implement each control. Enter the responsible person in column 7.
13. Repeat the process of risk assessment in step 8 taking into account the effect of the proposed controls.
14. Once the risk assessment worksheet is completed, you can give it to your supervisor, Health and Safety Representative or Safety Officer for review.
15. After taking their comments into consideration, give it to your supervisor for authorisation.
16. All OHS controls and the method for maintaining the controls must be included in the documentation for the process being assessed.

Figure 1

		Consequences				
		Near Hit/Miss - No Injury	First aid treatment required for minor injury	Medical treatment may be required	Serious injury requiring admission to hospital	Fatality or permanent disabling injury
		Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	Almost Certain	Medium	High	High	Extreme	Extreme
	Likely	Medium	Medium	High	High	Extreme
	Possible	Low	Medium	Medium	High	High
	Unlikely	Low	Low	Medium	Medium	High
	Rare	Low	Low	Low	Medium	Medium

Table 1.

Hazard Category	Examples of Hazard
Animal/Insect/Vegetation	Anaphylaxis, lab animal allergy, physical trauma, poisonous, venomous, zoonotic diseases.
Biological	Biological toxins, blood, bodily fluids & tissue, genetically modified organism, infectious microorganisms, needle stick, splash/spill, zoonotic diseases.
Chemical	Absorption (skin/mucosa), chemical burn, chemical splash/spill, cumulative effects, explosives/explosive atmospheres, flammable, ingestion, inhalation, sensitising agent, serious irreversible effects, storage hazard.
Equipment/Machinery/Vehicles	Electrical, entrapment hazard/pinch point, extreme cold, extreme heat, mechanical failure, moving objects/collision, sharp objects.
Hazardous Areas	Confined spaces, construction site, roof spaces, trenches/excavations, tunnels.
Manual Handling/Ergonomics	Application of force in awkward posture, handling of object that is awkward or difficult to hold, handling of people/animals, moving heavy objects, poor workstation setup, repetitive or sustained movement or posture, storage, underlying medical condition.
Outdoor Hazards	Animals/plants, extreme cold, extreme heat, falling objects, natural disasters, slip/trip/fall, sunburn.
Physical Hazards	Electrical, Fire, Noise, Particulate/Fumes, Sharp objects, Slip/Trip/Fall, Vibration, Working/falling from heights.
Psychological/Social	Difficult/stressful social interaction, mental illness factors, stress from inappropriateness of workload, stress from inappropriateness or difficulty of tasks, unacceptable behaviour, violence.
Radiation	Alpha, beta (low energy), beta (high energy), gamma ray, , high strength magnetic fields, lasers, neutron, other non-ionising radiation, splash/spill of unsealed source, UV radiation, x-rays.
Water/Gases/Liquids	Asphyxiants, compressed gases, cryogenics, drowning, explosive atmosphere, flammable gases, toxic gases.

Table 2.

The Hierarchy of Control

<i>Primary Controls</i>	
Elimination	Regulations supporting the <i>OHS Act</i> require the elimination of risks as the first step in risk control.
Substitution	Substitution of a less hazardous alternative.
Isolation	Enclosing or isolating the hazard from the people.
Engineering Controls	Changing processes, equipment or tools e.g.: <ul style="list-style-type: none"> • Machinery guards • Ventilation • Mechanical aids
If risk remains above acceptable levels, then administrative controls should be applied. If these are still not adequate, then personal protective clothing and equipment should be worn. Secondary control should be used in conjunction with primary controls, and should not be relied upon.	
<i>Secondary Controls</i>	
Administrative Controls	Information, training and procedures e.g.: <ul style="list-style-type: none"> • Job rotation • Limiting access • Permit systems • Safe operating procedures • Training • Signage
Personal Protective Equipment	Laboratory coat, safety glasses, closed shoes/steel capped boots, hearing protection.

RISK ASSESSMENT WORKSHEET

Risk Assessment Title:				
Details of Process:				
Risk Register:			Risk Assessment Number:	
Campus		Faculty/Division		School/Department/Centre
Building		Room No.		Assessment Date

Risk Assessment Team						
Name	Signature	Date		Name	Signature	Date

Hazard Categories applicable to this Risk Assessment

Animal/Insect/Vegetation <input type="checkbox"/>	Equipment/Machinery/Vehicles <input type="checkbox"/>	Manual Handling/Ergonomics <input type="checkbox"/>
Biological <input type="checkbox"/>	Outdoor Hazards <input type="checkbox"/>	Psychological/Social <input type="checkbox"/>
Chemical <input type="checkbox"/>	Water/Gases/Liquids <input type="checkbox"/>	Physical Hazards <input type="checkbox"/>
Hazardous Areas <input type="checkbox"/>	Radiation <input type="checkbox"/>	Other <input type="checkbox"/>

Approval Supervisor

Name:	
Signed:	Date:

INSERT PHOTO or DIAGRAM

AS APPROPRIATE

Hazard	Current Controls	Likelihood	Consequences	Current Risk	Proposed Controls	Responsible Person	Likelihood	Consequences	Residual Risk
1	2	3	4	5	6	7	8	9	10

Appendix

Suggested Controls for other Hazards

Manual Handling	
Engineering	Use of trolleys
	Bench workstation heights & angles and adjust work height set ups
	Step ladders for accessing shelves
	Conveyer belts
	Assisted lifting devices
	Power assisted trolleys, fork trucks, mobility device
	Pallet trucks
Administration	Ergonomics and workstation assessments
	Job rotation & additional help
	Safe work instructions and training in the use of engineering controls
	Training in manual handling/ lifting techniques
	Training in the process with reference to ergonomic/manual handling issues
	Safe work instructions or guidelines on task
	Training on task performance
	Identification and awareness of hazards associated with equipment or process
Personal Protective Equipment (PPE)	Flat soled / fully enclosed footwear
	Clothing & PPE appropriate for task
	Appropriate footwear (e.g. steel capped boots) in workshops or store environment.
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	Reflective vests where powered lifting equipment is used

Lasers	
Engineering/Isolation	Terminate beam at end of useful length
	Enclose beam
	Install remote interlocks
	Elevation limiters
	Beam attenuators
	Reduced number of reflective surfaces
Administration	Laser safety officer appointed
	Training for all staff in contact with laser areas
	Emission indicator device for lasers
	Eye tests prior to use of laser
	Laser must be in a designated laser area
	Signage indicating the power of the laser
	Remove worn reflective objects
Personal Protective Equipment (PPE)	Wear protective clothing for high powered laser
	See AS 1337.4 and 1337.5 for protective eyewear

Machinery	
Isolation	Perform the process in a booth or a separate room.
	Use barricades to control others potentially exposed to the hazard.
	Operate from a control room or isolate the process from operator and others
	Interlocking of isolation process to the control area
Engineering	Ensure guarding on rotating, shearing or pinch points is secure in place
	Fixed guarding
	Ensure guarding on rotating, shearing or pinch points is secure in place
	Use of local exhaust or fume hood/booth for fume or dust exposure.
	Emergency stop devices (dead stop)
	Modify the workplace layout in which a process is carried out to reduce hazards
	Use good ventilation or local exhaust for fume or dust exposure
Administration	Moderate level of supervision
	Training on task performance
	Identification and awareness of hazards associated with equipment or process
	Safe work instructions or guidelines on task
	Assessed high level of Competency (skills and behaviour needed to effectively perform the task) with moderate supervision
	Identification and awareness of hazards associated with equipment or process
	Localised and entrance signage of hazards
	Develop emergency control, isolation, shutdown and contingencies for the release of physical hazards.
Personal Protective Equipment (PPE)	Protective footwear
	Protective gloves and clothing
	Respiratory protection
	Protective eyewear/welding mask

Noise	
Isolation	Operate from a control room or isolate the process from operator and others
	Interlocking of isolation process to the control area
	Isolation to be compatible with type noise frequency
	Redesign the process to reduce noise exposure.
Engineering	Engineering controls such as equipment enclosures, internal sound proofing of equipment must be considered to eliminate or control the noise generated.
Administration	Generation and documentation of strategies to reduce noise for work activity
	Consider reducing duration of exposure Institute a "buy quiet" policy
	Training must be given on use of PPE
	Ensure people are not exposed to equivalent of 8 hours of greater than 85 dB(A) or impact noise in excess of 140 dB(C) per day
Personal Protective Equipment (PPE)	Hearing protection must be provided and maintained if other controls are not sufficient to reduce noise exposure. Hearing protection is standardised across Monash University; only hearing protection complying with SCL80 Class system appropriate to the risk is acceptable