

USE, DESIGN AND MODIFICATION OF MACHINERY AND EQUIPMENT AT MONASH UNIVERSITY

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1. PURPOSE

The purpose of this document is to provide guidance to staff, students, visitors and contractors who use machinery/equipment at Monash University in accordance with the requirements of the Occupational Health and Safety Act (2004) and associated regulations and with Standards AS/NZS 4801:2001 *Occupational Health & Safety Management Systems – specifications with guidance for use* and OHSAS 18001:2007 *Occupational Health and Safety Systems - Requirements*

2. SCOPE

The guidance, procedures and processes outlined in this document apply to the Australian campuses of Monash University and for Monash controlled entities.

3. ABBREVIATIONS

HSR	Health and Safety Representative
JSA	Job safety analysis
MSDS	Material safety data sheet
OH&S	Occupational Health and Safety Branch
OHS	Occupational health and safety
SDU	Staff Development Unit
SWI	Safe work instructions

4. DEFINITIONS

4.1 HEAD OF ACADEMIC/ADMINISTRATIVE UNIT

Head of academic/administrative unit is used to denote the head of the area that is undertaking the activity. For academic areas, this term includes head of faculty, school, department, institute or centre. For administrative areas, the term includes head of division, branch, centre or unit.

4.2 HIERARCHY OF CONTROL

The hierarchy of control ranks risk control measures in decreasing order of desirability and effectiveness. These are:

- *Elimination*
Regulations supporting the OHS Act require the elimination of risks as the first step in risk control.
- *Substitution*
- *Isolation*
- *Engineering controls*

If a risk to workplace health and safety remains after the above control measures have been used, *administrative controls* (information, training and procedures) should be applied or, if these are still not adequate, *Personal Protective clothing and Equipment (PPE) worn*. These methods of risk control should be used in conjunction with other controls and are not preferred as a single level of control as the potential of the risk is not eliminated or reduced.

4.3 MACHINERY/EQUIPMENT

For the purposes of this document, machinery/equipment is defined as a system or device for doing work together with a power source and any associated auxiliary equipment. This includes pressure equipment, powered equipment, hoists, powered mobile plant, lasers, turbines, explosive-powered tools in laboratories, studios and workshops.

For the purposes of this document:

- machinery/equipment does not include lifts and cranes, as the processes required for these machines are covered in the document *OHS monitoring, measurement & registration at Monash University*.
- personal computers and office equipment are excluded from these procedures.

4.4 MACHINERY/EQUIPMENT ISOLATION (LOCK OUT)

Machinery/equipment isolation is defined as the isolation and safe removal of the energy source from an item of equipment in such a way as to prevent the possibility of inadvertent energising of the whole or specified section of the equipment. Each energy source must be isolated and locked out at each isolation point along the energy source route where practicable.

The Monash University *Procedures for the isolation of machinery and equipment* can be found at www.monash.edu/ohs/topics/procedures/isolation-of-equipment.pdf

4.5 MONASH CONTROLLED ENTITY

Monash controlled entities (e.g. companies) include entities where Monash can control decision making, directly or indirectly, in relation to the financial and operating policies so as to enable the entity to operate with it in pursuing the objectives of Monash University.

For the remainder of this policy, a Monash controlled entity will be referred to as a controlled entity.

4.6 OHS HAZARD

An OHS hazard is anything that has the potential to cause injury or illness to people, damage to property or the environment or a combination of these. The situation could involve a task, chemical or item of equipment.

4.7 OHS RISK

An OHS risk is the possibility of a person's health or safety, property or the environment, being adversely impacted through interaction with hazards. It is determined by considering the likelihood of an adverse event occurring and the consequence of unintended exposure.

4.8 OHS RISK CONTROL

OHS risk control is action taken to eliminate or reduce the consequence and/or the likelihood of exposure to a hazard which has the potential to cause injury or illness to people or damage to property.

4.9 OHS RISK MANAGEMENT

OHS risk management is the process of hazard identification, risk assessment, and risk control with the aim of providing healthy and safe conditions for staff, students, visitors and contractors at Monash University.

4.10 RISK ASSESSMENTS

Risk assessments are documents which state for each project or subsequent task, procedure and process, chemical or item of equipment, a description of the associated hazard/s, current and proposed controls along with nominated completion date and responsible person. These documents may use either standard, matrix based or control banding methodologies.

4.11 SAFE WORK INSTRUCTIONS

Safe work instructions are written instructions for tasks that outline the preferred method of undertaking a task whilst emphasising ways to minimise any risk(s) of harm.

4.12 SUPERVISOR

4.12.1 Supervisors are those who are responsible for overseeing:

- the work program of other staff;
- the study program of honours and postgraduate students; and
- undergraduate students in lectures, tutorial and practical classes and on field trips.

4.12.2 The supervisor of staff or students has a particular responsibility for safeguarding the occupational health and safety of those in their charge. The supervisor can delegate the supervision or training of a staff member or student to a suitably qualified and/or experienced person, as appropriate for the task. The supervisor is, however, responsible for ensuring that the staff member or student has received appropriate training and has gained sufficient competence to undertake the task.

4.13 TESTING AND TAGGING

All electrical machinery or equipment must go through a safety inspection, testing and tagging procedure. This procedure includes both low voltage single phase and polyphase equipment, which is to be entered into service for the first time, or which is already in service, has been serviced, or is available for hire or resale. Electrical equipment refers to any electrical equipment or appliance brought onto a Monash University site, or used as part of a Monash University sanctioned activity by staff or students of Monash University, contractors, visitors, hire companies or any other person or agency.

The Monash University Information sheet *on Inspection, Testing, Tagging and Repair of electrical equipment* can be found at

www.monash.edu/ohs/topics/info-sheets/testing-tagging-repair.html

5. SPECIFIC RESPONSIBILITIES

5.1 OH&S

The responsibilities of OH&S include:

- developing, maintaining, reviewing and auditing of the university's policies, procedures and systems related to machinery/equipment management;
- providing monitoring of personal exposure and the environment where there is significant risk of physical exposure;
- providing general information, instruction and advice on training requirements for machinery/equipment safety.

5.2 HEADS OF ACADEMIC/ADMINISTRATIVE UNITS OR CONTROLLED ENTITIES

It is the responsibility of the head of academic/administrative unit or controlled entity to ensure that procedures and systems are in place in their unit/entity to manage machinery/equipment effectively ensuring:

- a healthy and safe environment for staff, students, visitors and contractors;
- that local standards and practices comply with legislative requirements and university policy;
- that staff and students undertake training in the safe use of machinery/equipment and records are kept

5.3 SUPERVISORS

It is the responsibility of supervisors to ensure that procedures and systems are in place in the areas of their responsibility to manage machinery/equipment effectively to ensure:

- a healthy and safe environment for staff, students, visitors and contractors;
- that local standards and practices comply with legislative requirements and university policy;
- that staff and students undertake training in the safe use of machinery/equipment.

5.4 STAFF AND STUDENTS

Staff and students using machinery/equipment must comply with OHS instructions, policies and procedures, using control measures and/or personal protective equipment to ensure their own health and safety as well as the health and safety of others.

6. INFORMATION REGARDING THE USE, DESIGN AND MODIFICATION OF MACHINERY AND EQUIPMENT

6.1 MACHINE SAFETY WEBPAGE

www.monash.edu/ohs/topics/machine-equipment-safety.html

- The Machine Safety webpage has been developed to provide staff with a guide for the completion of risk assessments, JSA's and safe work instructions by providing them with a starting template for their own assessments.
- The page is designed to streamline the process of risk management and to be used as a constantly updated resource, whereby staff are encouraged to post their assessment documents and instructions for use by the university.
- General requirements of safety in workshops are also described at this web site.

6.2 OTHER SAFETY INFORMATION FOR MACHINERY/EQUIPMENT

6.2.1 OH&S has developed a range of documents that also need to be consulted and understood by users of machinery/equipment, which are available at the OH&S website: www.monash.edu/ohs/topics/

These include:

- OHS procedures for work and study during times when emergency response is limited
- Procedures for the health and safety of students undertaking studies in laboratories, studios, workshops or clinical activities
- Guidelines for the development of safe work instructions
- Information Sheet No 32: Electrical Safety
- Information Sheet No 33: Inspection, Testing, Tagging & Repair of Electrical Equipment
- Risk Management Program
- Procedures for the isolation of machinery and equipment
- Information sheet no. 13: Use of local exhaust ventilation systems: fume cupboards

6.2.2 For more detailed information, contact your safety officer or the OHS&E consultant of your area.

7. COMMENCING NEW WORK/STUDY OR MODIFYING EXISTING PRACTICES

7.1 Complete a new risk assessment or review and update an existing risk assessment

See 9. Risk management

7.2 Consult your safety officer

Contact your safety officer to ensure all university and regulatory requirements are met.

7.3 Complete training in the use of the machinery/equipment

See 10. Training

7.4 Develop safe work instructions

Following risk management of machinery/equipment or processes that use machinery/equipment, safe work instructions must be developed by supervisors of laboratories/studios/workshops or incorporated into workshop, laboratory procedures or safety manuals.

8. PURCHASE, DESIGN AND MODIFICATION OF MACHINERY/EQUIPMENT

8.1 NEW MACHINERY/EQUIPMENT

An equipment safety checklist is available in appendix 4 to assist in the risk management of new or modified equipment, machinery and associated processes.

This process should be completed prior to commencing any new project, proposal, etc to mitigate OHS and commissioning risks.

Before purchasing new machinery/equipment, check with your safety officer and health & safety representative (HSR) to determine:

- requirements for licenses, permits or notification to use the machinery/equipment;
- availability of appropriate storage and infrastructure for the machinery/equipment;
- whether risk identification has been undertaken for the proposed machinery/equipment. A manufacturer's risk assessment may be supplied;
- availability of adequate isolation points;
- if the machinery/equipment is of a safe and ergonomic design as well as compliant with relevant Australian Standards.
- whether training is provided on the use of machinery/equipment (if required).

8.2 DESIGN OF MACHINERY AND EQUIPMENT

8.2.1 A designer of machinery/equipment must ensure that all hazards associated with the use of machinery/equipment are identified and controls integrated within the design where practicable, having regard to the state of knowledge of the hazards.

8.2.2 The process for the risk management for the design, installation, commissioning, operation and maintenance of new and modified machinery and equipment is described in the flow chart and checklist provided in the appendices of this document

8.2.3 A designer of machinery/equipment must assess the risks associated with identified hazards, taking into account:

- any risk factors associated with the use of the machinery/equipment; and, so far as is practicable;
 - risk factors associated with the use of the machinery/equipment which are specific to the workplace in which the machinery/equipment is to be used; the range of environmental and operational conditions in which the machinery/equipment is intended to be used; and
 - any ergonomic considerations in relation to people who may use the machinery/equipment.
- 8.2.4 A designer of machinery/equipment must ensure that any hazards associated with the use of the machinery/equipment:
- are eliminated;
 - or if not practicable to eliminate, reduced so far as is practicable by altering the design of the machinery/equipment using the hierarchy of controls;
 - where residual risks exists, controls such as emergency stop devices, warning devices and other emergency controls are incorporated and are easy to access from the point of operation / use.
- 8.2.5 A designer of machinery/equipment must ensure that the following documentation is developed and handed over with the machinery/equipment:
- completed risk assessment;
 - record of standards, engineering principles and calculations used;
 - operation manual;
 - servicing information and requirements;
 - schematics/plant diagrams; and
 - safe work instructions or training documents.

8.3 MODIFIED OR DONATED MACHINERY/EQUIPMENT

- 8.3.1 Those modifying machinery or equipment may take on the responsibilities of the designer. If the operation or workings have been modified to change either the hazards associated with, or the operation of the machine or equipment, the responsibility of risk assessment and control falls under section 8.2
- 8.3.2 Where machinery/equipment is donated to the university the department who is the recipient or main stake holder assumes the responsibility of risk assessment and control under section 8.2, once the machinery/equipment is to be commissioned.

8.4 COMMISSIONING MACHINERY/EQUIPMENT

Commissioning of machinery/equipment includes:

- ensuring that an OHS risk assessment and OHS risk controls are in place for the installation and commissioning phases;
- induction of any contractors under the control of the unit/entity during installation and commissioning;
- consulting with any personnel who may be affected in immediate area, e.g. with noise, vibration, dust, access & egress during installation and commissioning;
- ensuring that an OHS risk assessment and OHS risk controls are in place for: the safe operation, isolation, maintenance and emergency procedures;
- registering the machinery or equipment if required by the regulatory authorities;

- development of safe work instructions; and
- all machinery/equipment or electrical equipment associated with the machinery/equipment is tested and tagged.

8.5 DECOMMISSIONING OF MACHINERY/EQUIPMENT

Decommissioning of machinery/equipment includes:

- ensuring that a risk assessment and controls are in place for the decommissioning and removal;
- induction of any contractors under the control of the unit/entity during decommissioning and removal;
- consulting with any personnel who may be affected in immediate area, e.g. with noise, vibration, dust, access & egress;
- notification of relevant regulatory authorities if required; and
- recycling of machinery/equipment (scrap) through local scrap merchants, where possible.

9. RISK MANAGEMENT

(See *OHS Risk Management at Monash University*,
www.adm.monash.edu.au/ohse/documents)

9.1 REQUIREMENT FOR RISK MANAGEMENT

9.1.1 Risk management must be completed:

- on all processes/procedures/activities that involve the use of machinery/equipment;
- on all machinery/equipment used at the university (whether designed within the university, or whether existing machinery/equipment) where there is an assessed risk of harm.
- before activities using machinery/equipment commence;
- before the introduction of new procedures or processes that use machinery/equipment;
- when procedures or processes that use machinery/equipment are modified;
- when machinery/equipment is initially designed, redesigned, installed and/or commissioned.

9.1.2 It is the responsibility of the unit/entity who owns the machinery/equipment to ensure that the machinery/equipment is safe for use and is inspected regularly to ensure controls are effective in reducing the risks.

9.2 RISK MANAGEMENT OF MACHINERY/EQUIPMENT

9.2.1 Risk management of machinery/equipment which has the potential to cause harm must include consideration of:

- design to remove or isolate hazards within the machinery/equipment;
- emergency stop and warning devices;
- isolation devices (for all energy sources);
- adequate fixed guarding or guarding which is interlocked;
- clear and unambiguous operator controls;
- ergonomic principles;

9.2.2 The end users/operators, where practicable, should be consulted during the risk management process.

9.2.3 Guarding

- All machinery/equipment which has the potential to cause harm must be adequately guarded according to the Victorian OHS Regulations (Section 3.5 Plant) 2007 and AS 4024.1:2006 Safety of Machinery.
- Risks associated with machinery/equipment must be eliminated or reduced through the isolation or engineering (guarding) controls where reasonably practicable.
- Where removal or isolation of hazards is not practicable practices such as safe guarding, cut out devices (light curtains, proximity sensors) or activation devices (dead man handles or double initiation switches) should be incorporated.

9.3 OHS RISK MANAGEMENT TOOLS

A range of tools have been developed for staff and students to undertake risk management at the university. At Monash, the emphasis of these processes is to ensure that identified risks are controlled effectively.

9.3.1 Risk Management programme

- 9.3.1.1 The risk management program has been designed to allow assessment teams in each unit to quickly and comprehensively:
- identify and assess the hazards in the workplace;
 - rank them in terms of priority; and
 - provide guidance for the development of appropriate risk control measures.

9.3.1.2 Machinery/equipment risk management

The risk management program offers two methods for assessing risk:

- A risk matrix model using consequence and likelihood as indicators of overall risk.
- A control banding model which uses the level of automation of the machinery/equipment and the potential consequence to determine a minimum level of recommended controls.

A full description of risk management of physical hazards (including machinery and equipment) can be found in the [Risk Management Program \(pdf 385kb\)](#)

9.3.2 Job safety analysis www.monash.edu/ohs/topics/

- 9.3.2.1 The job safety analysis (JSA) tool has been developed to assist Facilities & Services staff to assess and control the risks of their activities that may impact the health and safety of staff, students, visitors and contractors.
- 9.3.2.2 The JSA has been designed to allow staff performing medium and high risk activities to critically examine a work task to identify the hazards of the job and to work out ways to eliminate or control the hazards.
- 9.3.2.3 Following completion, the JSA must be checked by a supervisor/foreman prior to commencing the project.

9.4 RISK ASSESSMENTS

9.4.1 Risk assessments must include assessment of:

- the effects on the local environment such as other processes, personnel or external environmental impacts;
- types and quantities of wastes generated and their storage, handling, treatment and disposal methods;
- emergency situations which may arise from the task, procedure or equipment, e.g. from a spill, a fire or an explosion;
- the level of risk associated with the task, procedure or equipment outside of the normal operating hours of the unit, i.e. during times when the immediate emergency response, e.g. first aid, is limited. Examples of recommended conditions for work or study at these times are provided in *OHS procedures for work and study during times when emergency response is limited*, which is available at www.monash.edu/ohs/topics/procedures/after-hours.pdf (136kb)

9.4.2 Generic tasks, procedures and equipment

- 9.4.2.1 Generic risk assessments may be developed for tasks, procedures and equipment at:
- more than one work place, or
 - more than one work area within a workplace.
- 9.4.2.2 Generic risk assessments must include modifications specific to each work area.
- 9.4.2.3 Where used, a copy of the generic risk assessment must be available to staff and students of the unit/entity.

9.5 CONTROLLING RISKS

- 9.5.1 The OHS Act 2004 requires risk control measures to be selected based on the hierarchy of control.
- 9.5.2 Throughout the risk management program, examples of control measures based on the hierarchy of control are provided following the assessment table for each hazard type.
- 9.5.3 The hierarchy of control ranks risk control measures in decreasing order of desirability and effectiveness with the preferred control measures being elimination, substitution or engineering controls.

9.6 UPDATE AND REVIEW OF RISK ASSESSMENTS

- 9.6.1 Risk assessments must be reviewed when significant changes are made to the machinery/equipment, following an incident involving the machinery or equipment, or at least every 3 years.
- 9.6.2 Units/entities that undertake research using machinery/equipment may need to update their risk assessments frequently, even daily, to ensure that their risk assessments are up to date.

10. TRAINING

See *OHS Induction & training at Monash University*:
www.monash.edu/ohs/training/safety-induction-program.html

10.1 RISK MANAGEMENT

Training in the use of the risk management programme and the job safety analysis is provided by the Staff Development Unit (SDU) both centrally and in work areas.

10.2 USE OF MACHINERY/EQUIPMENT

Training in the use of machinery/equipment must be provided at a range of levels. This may include: laboratory/studio/workshop supervisors, safety personnel and manufacturers/designers of the machinery/equipment.

10.2.1 Supervisors at a local laboratory/studio/workshop level

Supervisors must provide induction, training and ensure a sufficient level of competency in the use of machinery/equipment of those operating the machinery/equipment in the laboratory/studio/workshop that they supervise.

This training must include:

- the safe use of the machinery/equipment
- the use and location of personal protective and emergency equipment;
- the location of SWI's and risk assessments for the machinery/equipment and processes where the machinery/equipment is used in the area;
- emergency procedures for the safe shutdown of the machinery/equipment.

10.2.2 Safety personnel and experts at a unit/entity level

10.2.2.1 In faculties/divisions/entities with a range of similar risks, training in machinery/equipment use can be provided at faculty/divisional level by local safety personnel.

10.2.2.2 Unit/entity OHS training in machinery/equipment use can be provided by local safety personnel or experts with specific knowledge of the machinery/equipment used in the area.

10.2.3 Training at a university level

10.2.3.1 The Staff Development Unit conducts training courses in risk management. The OH&S branch provides advice locally on workplace safety instruction development for staff, postgraduate and honours students across all campuses and centres.

10.2.3.2 The SDU training calendar and course enrolment form is available at www.adm.monash.edu.au/staff-development/ws/ohs/

10.2.3.3 Training in JSA methods is provided by Facilities and Services.

10.3 TRAINING RECORDS

10.3.1 In order for units/centres and supervisors to demonstrate effectively that they have provided comprehensive OHS training for the staff and students that they supervise, the training undertaken on machinery/equipment used must be recorded.

10.3.2 OH&S has developed a proforma to use to record attendance at OHS training in each unit/entity, which is available at the OH&S website www.monash.edu/ohs/topics/

10.3.3 A short description of the points covered in the training should also be documented for all machine based training provided in the unit/entity. The description will act as both a reminder regarding the areas that should be covered in the training and as a record of the areas covered in the training.

10.3.4 OHS training by supervisors:

- When a supervisor provides training in machinery/equipment operation or procedures, the completion of the training should be recorded.
- Records of machinery/equipment operation or procedures training should be maintained in a folder in each area, e.g. laboratory/workshop/studio where training is provided.
- The student or staff member being trained should be able to demonstrate competence in the task(s) before the supervisor completes the record of training.

11. HEALTH SURVEILLANCE AT MONASH UNIVERSITY

Health surveillance of machine users, e.g. audiometry is conducted at Monash on a risk basis. Details of the Monash University health surveillance program are outlined in the document *Health surveillance at Monash University*, which is available at the OH&S website www.monash.edu/ohs/topics/

12. RECORDS

<u>Record to be kept by</u> Academic/administrative unit/controlled entity	<u>Records</u>	<u>To be kept for:</u>
	Risk assessments	3 years or until reviewed
	Records of training provided by unit/entity, including: <ul style="list-style-type: none"> • Attendees; • Short description of training content 	Indefinitely
SDU	Records of training provided by SDU, including: <ul style="list-style-type: none"> • Attendees • Short description of training content 	Indefinitely
	Course evaluation sheets	5 years
OH&S health team (confidential files)	Health surveillance results	Indefinitely

13. REFERENCES

13.1 LEGISLATION

Occupational Health and Safety Act 2004 (Vic)
Occupational Health and Safety Regulations 2007 (Vic)

13.2 MONASH UNIVERSITY OHS DOCUMENTS

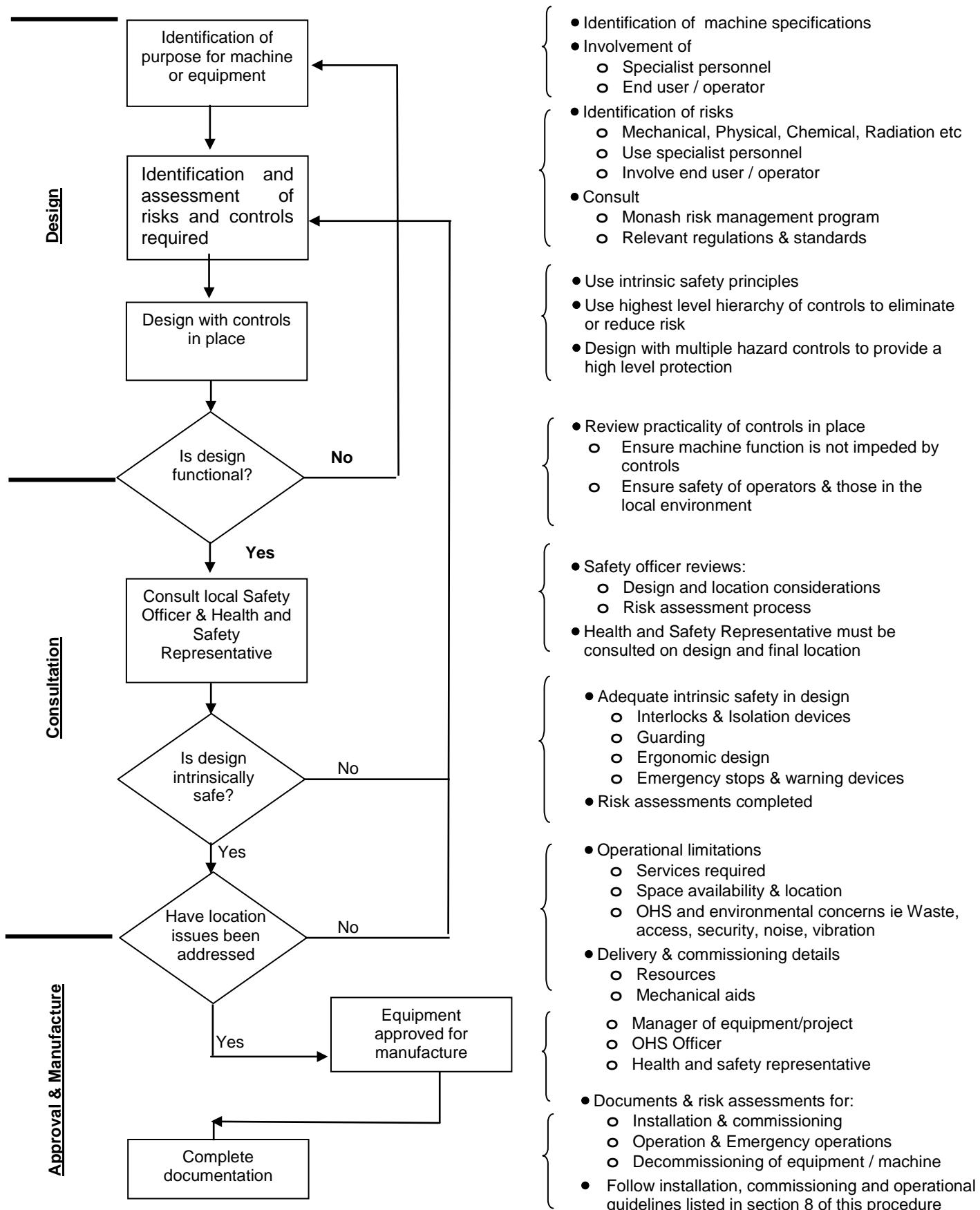
Guidelines for the development of safe work instructions
Health surveillance at Monash University
Job Safety Analysis
Information Sheet no 7: Wood Dust Exposure
Information sheet no. 13: Use of local exhaust ventilation systems: fume cupboards
Information Sheet No 32: Electrical Safety

Information Sheet No 33: Inspection, Testing, Tagging & Repair of Electrical Equipment
OHS induction and training at Monash University
OHS procedures for work and study during times when emergency response is limited
OHS risk management at Monash University
Guide to OHS Training at Monash University
SDU training calendar and enrolment forms
Procedures for the health and safety of students undertaking studies in laboratories, studios, workshops or clinical skills activities
Procedures for the isolation of machinery and equipment
Risk Management Programme
Training records

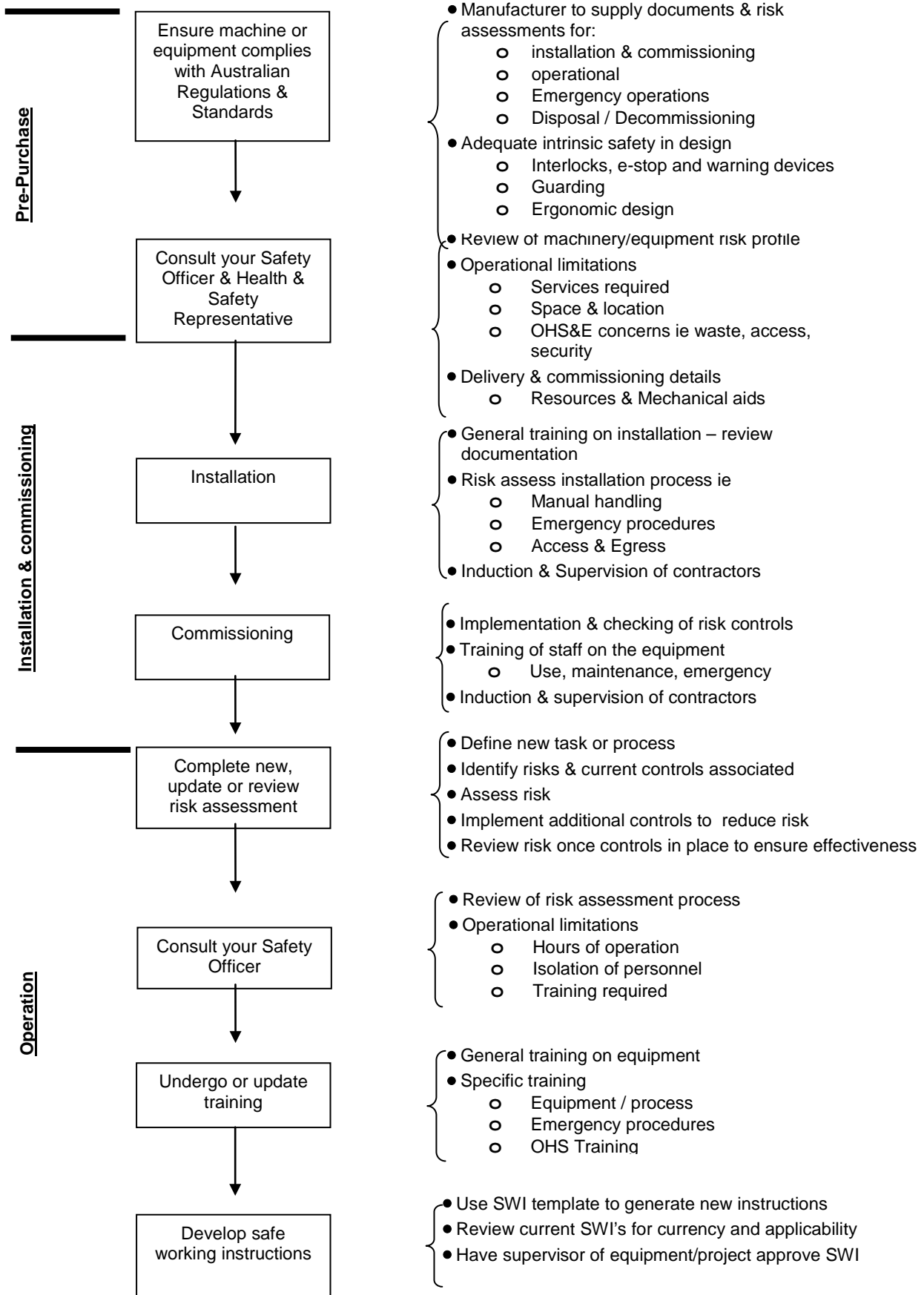
13.3 AUSTRALIAN AND INTERNATIONAL STANDARDS

AS 4024.1:2006 Safety of Machinery
AS/NZS 4360:2004 Risk management
AS/NZS 4801:2001 Occupational Health & Safety Management Systems – specifications with guidance for use.
OHSAS 18001:2007 *Occupational Health and Safety Management Systems-Requirements*

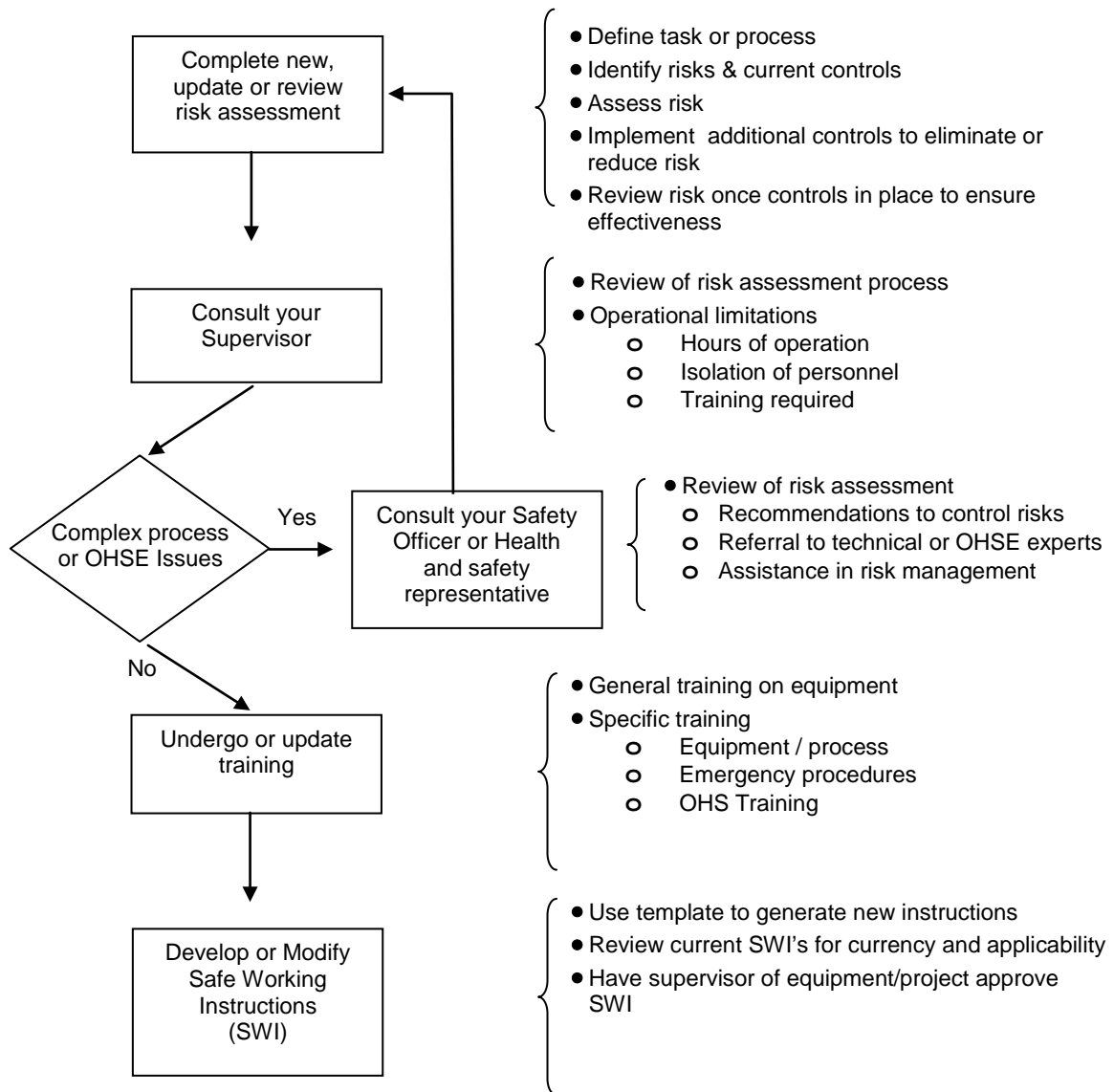
APPENDIX 1: DESIGN AND MODIFICATION OF MACHINERY OR EQUIPMENT



APPENDIX 2: PURCHASING FROM A SUPPLIER OR MANUFACTURER



APPENDIX 3: NEW WORK / STUDY OR MODIFYING EXISTING PRACTICES



APPENDIX 4: MACHINERY / EQUIPMENT SAFETY CHECKLIST

This machinery / equipment safety checklist is designed to assist in the risk management of new or modified equipment machinery and associated processes and should be **completed prior to commencing** any new project, proposal, etc.

Please Note for Machinery / Equipment which is designed and or manufactured at Monash, the unit/entity is deemed to be the Manufacturer under the Regulations and therefore wherever mentioned in this document.

Project or Equipment Description / Purpose: _____

Supervisor Responsible for process or equipment

Name: _____

Unit/Entity: _____

Ext No: _____

Pre Purchase or Design:

- Ensure the machinery / equipment complies with relevant Australian Standards such as those for pressure vessels, safe guarding, electrical requirements etc
- Consider environmental issues such as power use or power saving options on electrically powered equipment
- Ensure a risk assessment is forwarded from the manufacturer, supplier / distributor with the specification sheets before purchase
- Ensure operating manuals and or safety manuals for equipment are obtained from the manufacturer/supplier as part of the purchase.
- Where possible arrange training as part of the purchase cost of the item from the manufacturer/distributor.
- Complete a risk assessment on the machinery/equipment for the commissioning, use of and decommissioning phases of the equipment. Use Monash's [Risk Management Program](#) to identify:
 - Hazards associated with the machinery/equipment
 - Impact on the local work environment (i.e. noise, radiation, vibration etc)
 - Hazards associated with any equipment or facilities required to run the equipment (i.e. high pressure / toxic gasses, Chemicals etc)
 - Any waste products generated and their disposal
 - Controls required to eliminate or minimising the hazards identified.
- Consult with local management staff, Safety Officer & Health and Safety Representative about equipment location general and safety requirements
- Installation of equipment, if done by external technical staff, will require an effective [Contractor management \(pdf 52kb\)](#) process (unless coordinated through Facilities and Services Division)

Pre-Commissioning:

- Review risk assessment before commissioning begins.
- Identify users of the equipment and training required
- Identify and purchase required PPE and safety equipment
- Consult with local management staff, Safety Officer & Health and Safety Representative about equipment location general and safety requirements.

Before use:

- Document the process of operation (Safe Work Instruction) including:
 - Equipment maintenance and test procedures
 - Emergency management
 - After hours access
- Ensure all identified personnel are trained and aware of risks and protocols on the safe use of equipment
 - Ensure Training records are kept (include signed attendance form and details of training course content)
- Review risk assessment on the equipment to make sure all hazards have been addressed
- Ensure all safety devices are operational and guarding / controls in place.
- Consult with local Safety Officer & Health and Safety Representative to ensure equipment location and safety requirements have been met.
- Ensure copies of the risk assessment, safe work instructions, MSDS's, emergency procedures and equipment operating and safety manuals are readily available and placed in a prominent location within the laboratory
- Ensure other laboratory users are informed of hazards, safe work procedures, PPE required and emergency procedures associated with the project, as well as the location of the risk management documentation

	Signature	Date
Equipment Supervisor		
Facilities/Resources Manager		
Safety Officer		
Health & Safety Representative		

Note: Original to be kept by the supervisor, with a copy to be provided to the Facilities/Resources Manager, Safety Officer & Health and Safety Representative.