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Workshop Safety Manual

Workshop Name:

Workshop Manager / Supervisor:

Department:

Version:

[Date]

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# 

# Introduction

[All writing in red requires customisation for your workshop, after which this paragraph should be removed, and all red fields returned to black text.]

The University of Newcastle is committed to its staff, students and visitors (including contractors) to achieve the maximum safety that is reasonably practicable. Workshops contain numerous potential hazards, but with suitable controls the risks from these can be minimised or eliminated. This manual is provided to document the safe practices required to maximise safety and be the basis for training of all workshop personnel accessing the facility.

This manual refers to additional sources of information in the workshop (may be physical or electronic) and may include, but not be limited to:

* An SDS folder - which provides safety information about chemicals in use.
* An Equipment folder - which contains register of all equipment, operating manuals, procedures and test and maintenance records.
* An Induction folder - which records the individuals approved for access into the workshop, who have completed the site-specific induction and training relevant to this workshop.
* A Procedures folder - contains the Risk Assessments for procedures undertaken, SWMS and SOPs for the workshop and should be used part of the induction and reviewed as per workshop policy.

These folders are located: [folder location]

# Description

## A red and white sign Description automatically generated with low confidenceWorkshop Layout

Guillotine

Gas Cylinders

Welding Zone

Workshop Office Area

Lathe

 AED

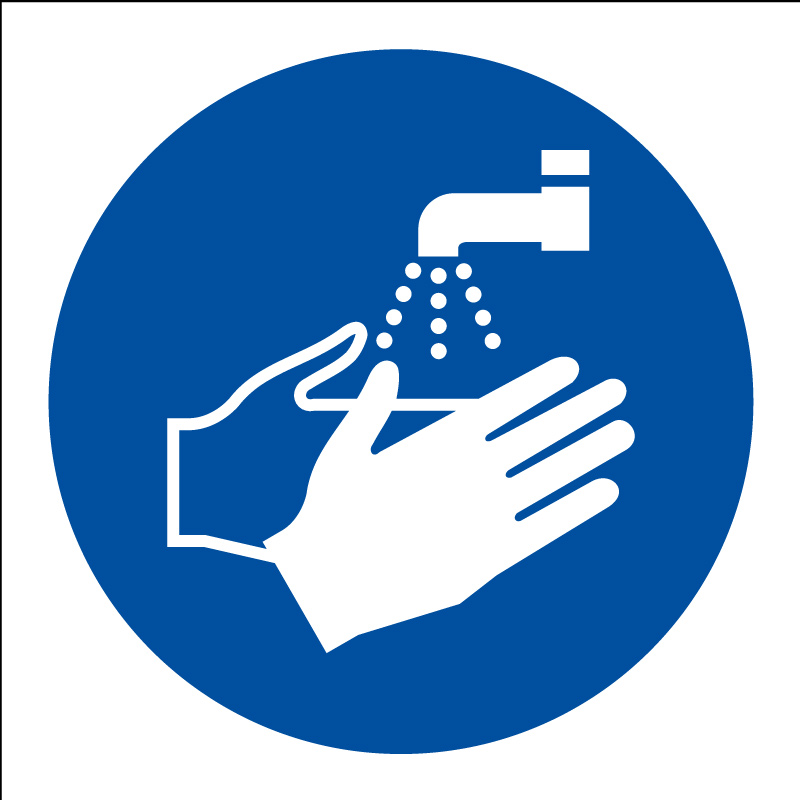
 Emergency Exit

 Emergency Stop

 Eye Wash Station

 Fire Extinguisher

 First Aid Kit

 Hand Wash Station

 PPE Located Here

Mill

*Figure 1 Example Workshop Layout*

[The image above is an example of a workshop configuration. By using the legend to populate the floorplan of your workshop, you can illustrate the location of emergency equipment and any emergency egress to the users of this manual.]

## Workshop Emergency Procedure

The [University Emergency Procedure Guide](https://search.newcastle.edu.au/s/redirect?collection=default_collection&url=https%3A%2F%2Fwww.newcastle.edu.au%2F__data%2Fassets%2Fpdf_file%2F0005%2F511682%2FProcedure-Guide.pdf&auth=3RBQowwKtJ3akWt7A%2FN5TQ&profile=_default&rank=1&query=emergency+procedures) provides emergency responses applicable to each campus for Fire, Medical Emergency, Bomb Threat, Internal Emergencies, External Emergencies and Personal Threats.

This is the site-specific emergency response for the workshop:

* [You are required to activate the emergency stops in the event of an evacuation]
* [The evacuation point is evacuation location]
* [The operator is/is not required to safely shutdown all operating equipment during an evacuation (if safe to do so)]
* [Gases should be closed off at the bottle or by activation of manual gas stops (if available) , or by turning off at the bottle.

## Safety and Emergency Equipment

|  |  |  |  |
| --- | --- | --- | --- |
| **Equipment Description** | **Location** | **Maintained by** | **Contact Info** |
| Defibrillator – nearest unit |  | IFS | 49216500 |
| Eyewash Station |  | IFS | 49216500 |
| Fire Blanket |  | Workshop Manager |  |
| Fire Extinguishers |  | IFS | 49216500 |
| First Aid Kits |  | First Aid Officer |  |
| Low Voltage Rescue Kit |  | Workshop Manager |  |
| PPE |  | Workshop Manager |  |

## Emergency Contacts

|  |  |  |
| --- | --- | --- |
| **Emergency Contacts** | **Phone number** |  |
| Security Services | 49215888 |  |
| Fire, Ambulance or Police | 0 000  112 (From a mobile) | Specify service when prompted |
| NSW Poisons Information Hotline | 131126 |  |
| First Aid Officer | x | [Name of First Aid Officer] |
| Evacuation Warden(s) |  | [Name of Evacuation Warden(s)] |
| WHS Officer | x | [Name of WHS Officer] |
| IFS | 49216500 |  |
| University Health, Safety & Wellbeing | 49339999 Option 5 |  |
| University Health Service | 49216000 |  |

Further information about the operation of the workshop can be obtained from the following people:

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Contact** |
|  | Workshop Manager / Supervisor |  |
|  | Senior Work Health and Safety Specialist | 4033 9999 Option 5) |

# 

# Roles and Responsibilities

## Head of School/General Manager

Accountable for the safe operation of all facilities and the safety of all personnel under their authority.

Responsible to ensure safety processes and procedures are in place and are being implemented, and that safety documentation has been developed and is current.

Responsibilities include:

1. provide and make financial allocation for appropriate safety resources and risk control measures for staff and where required, other workers, students and visitors
2. ensure appropriate risk management procedures are implemented
3. ensure adequate training and supervision is available
4. ensure procedures are adopted for the maintenance of workshop equipment
5. communicate the requirements for staff and other workers, students and visitors to prepare and follow Safe Work Method Statements (SWMS) and Standard Operating Procedures (SOP) when required;
6. appropriate resources are provided to achieve the requirements of this manual.
7. legislative compliance is achieved.
8. effective oversight in Workshops is provided through the appointment of a Workshop Manager / Supervisor.

## Workshop Manager / Supervisor

Responsible for the day to day management of workplace health and safety for all users of the workshop and for monitoring the implementation of this manual.

The Workshop Manager / Supervisor engages with all workers to ensure they remain safe and adhere to the required risk control measures. The Workshop Manager / Supervisor will ensure that the provision of:

1. adequate training and supervision for all users of the workshop
2. maintenance of workshop equipment and facilities as per manufacturer requirements
3. communication of WHS requirements to all users of the workshop
4. risk management procedures are implemented so that hazards are identified, risks assessed and risk controls selected and implemented to prevent injuries and incidents occurring in their area of responsibility
5. Safe Work Method Statements (SWMS) and/or Standard Operating Procedures (SOPs) area available and provided for all potentially hazardous workshop activities and ensure they are followed
6. clear and appropriate signage
7. development and implementation of site-specific workshop inductions for all workers
8. oversight of facility access by ensuring all workshop users meet the requirements to be allowed access to the facility and that access control is enforced
9. effective management of any identified hazards
10. regular safety walk-throughs and inspections of the workshop
11. participation in safety inspections of the workshop by other groups
12. implementation of corrective actions recommended by inspections

## Staff / Workers

All workers must:

1. co-operate and actively contribute to workplace health and safety management by complying with relevant policies, procedures and guidelines.
2. Follow the requirements outlined in SWMS and SOPs and
3. report circumstances where additional hazards are identified or changes to the activity warrant a review of the SWMS or SOP
4. participate in risk management activities to identify, assess, control and review WHS risks in the workplace
5. report injuries, incidents and near-misses to their immediate supervisor and the Workshop Manager / Supervisor
6. follow any reasonable direction issued by the appropriate persons
7. undertake any inductions, competencies or training reasonably requested by the Workshop Manager / Supervisor
8. report any damage or misuse of workshop equipment or safety equipment
9. take reasonable care of themselves and others in the workplace and ensure that their actions or omissions do not adversely affect the health or safety of other persons

## Students

Students who access the workshop must:

1. wear the correct personal protective equipment as identified on the main workshop door
2. never operate any equipment they have not been deemed competent to use.
3. never communicate with someone who is using equipment. A sudden change in concentration, can result in an incident.
4. understand that fooling around and practical jokes in the workshop will not be tolerated.
5. only access the workshop with an authorised person (if they are not authorised).
6. always comply with the directions of the authorised person while in the workshop
7. report injuries, incidents and near-misses to the Workshop Manager / Supervisor

# Workshop Access

**ACCESS TO THE WORKHSOP IS RESTRICTED.**

Access is only available to persons who have been inducted or are under the direct responsibility of an inducted person.

All persons accessing the workshop must comply with the minimum PPE requirement as identified on the main workshop door.

**CORE HOURS** of the workshop are [time]am to [time]pm. The workshop can only be accessed during these times unless otherwise authorised).

Unsupervised workshop access will only be provided to workers who have:

1. completed the University Health and Safety Induction (online on Discover)
2. completed the site-specific Workshop Induction (checklist provided as Appendix A)
3. familiarised themselves with this workshop manual
4. the required personal protective equipment
5. been authorised as a workshop user by Name of the approver

The workshop must be kept secured when not in use. Only authorised persons will be provided with key/swipe access for the workshop.

The list of authorised persons will be maintained by the Workshop Manager / Supervisor and is kept in the Induction folder.

***Working safely is a condition of access to the Workshop facility.***

***Failure to observe safe working practices and procedures can result in the withdrawal of access privileges.***

## Applying for Access

### Staff

All staff are required to submit a Maximo request for either a physical key or electronic access requests. When submitting the Maximo request, select positional title as the approver.

### Students/Visitors/Affiliates

Students, visitors and affiliates are to complete the Key and Electronic Access Request Application that can be found online at: <https://www.newcastle.edu.au/__data/assets/pdf_file/0018/80307/Key-and-Electronic-Access-Request-Application-Form.pdf>

The applicant should sign the “Signature” section at the bottom of the form and have the “Restricted Area Approval” section of the form signed by their supervisor before sending the completed form via email to   
name of the approver@newcastle.edu.au.

These records will be kept in the induction folder.

# 

# Workshop Rules

1. Only authorised workers can access the workshop.
2. No eating, drinking, smoking, handling contact lenses or applying cosmetics in the workshop.
3. Storage of food or drink in the workshop is prohibited.
4. Workers obviously affected by drugs or alcohol **will not be permitted** in the workshop.
5. Workers with any health problems that may affect workplace safety (e.g. medication, epileptic fits) must report these conditions to the Workshop Manager / Supervisor.
6. The workshop doors must be kept closed when work is in progress and secured upon leaving.
7. Wear the correct PPE for the tools you are using.
8. Immediately notify the Workshop Manager / Supervisor of any faulty or broken equipment.
9. Long hair or loose-fitting clothing must be restrained before using any equipment.
10. Keep leads up off the floor.
11. Keep clear of any person operating tools and machinery (bumping an operator or get tangled in the lead could cause serious injury to you or the operator).
12. Do not talk to anyone operating electrical equipment and machinery.
13. Keep your work area tidy. Clean benches before and after working at them.
14. PPE MUST be removed before leaving the workshop.
15. Clean up any spills immediately.
16. Wash hands after using equipment and materials.

# Training and Competencies

All workers will be required to develop and demonstrate competence prior to being permitted unsupervised use of any equipment or to undertake any activities in the workshop.

Individual training programs and assessment will depend on the nature of the work undertaken, the current level of experience of the person and their need to work unsupervised. The regularity of ongoing training and competence assessment will be determined by the Workshop Manager / Supervisor.

A training record for all persons who are permitted to conduct activities in this workshop will be recorded and displayed at the entrance to the workshop. The training record is available as Appendix B.

# Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) is to be used in line with risk assessments, SWMS and SOPs. PPE is to be fit for purpose and maintained or replaced as required. Relevant PPE is provided to staff as required and students will be provided with short-term use PPE at the discretion of the Workshop Manager / Supervisor.

In this workshop the minimum requirements for PPE are:

* Safety glasses.
* Protective footwear, covering the toes, the upper surface of the foot and the heel must by worn at all times. [Include here if steel caps are required]
* Long hair must be tied back.
* Appropriate protective clothing such as ….
* Loose clothing must be restrained.
* [Hearing protection.]
* [hard hats.]
* [any further minimum requirements.]

Additional PPE you may be required to use for specific activities includes:

* [Ear plugs.]
* [Earmuffs].
* [hard hats.]
* [welding goggles.]
* [safety gloves.]
* [dust mask.]
* [any additional PPE available.]

Minimum PPE requirements are displayed on signage on the main door to the Workshop. Where additional PPE is required in select areas of the workshop, signage is displayed in these locations to ensure all workers are aware of these requirements.

PPE required to perform your job is supplied by the workshop and each user must ensure it is in good repair prior to its use. Any damaged or faulty PPE must be reported to the Workshop Manager / Supervisor immediately so that it can be replaced. Damaged/faulty PPE must NOT be used.

If for any reason required PPE is unavailable, then the task must NOT be undertaken, and the Workshop Manager / Supervisor notified.

## Clothing & Footwear Requirements

It is a University requirement that enclosed footwear must be worn in the workshop - no bare feet, thongs, or sandals at any time. The main door of the workshop indicates this requirement or if greater protection is required e.g. Safety Shoes/Boots. This requirement applies to all person entering the Workshop.

## Workshop Coat

Each person carrying out work that could potentially damage the persons clothing should wear a workshop coat to ensure any contamination, swarf or debris from the workshop remains on the coat. Coats shall:

* + Be worn at all times whilst performing this work.
  + Be removed and hung on the coat hooks before leaving the workshop.
  + Be laundered regularly, or when contamination is suspected.

Laundry arrangements for the workshop are as follows:

[ Laundry Contact (Name of Laundry)]

Visitors to the workshop will be provided coats when there is work being undertaken.

## Eye Protection

Safety glasses shall be worn at all times when work is conducted in the Workshop. Prescription safety glasses may be required (the worker will need to discuss this with the Workshop Manager / Supervisor for those who would normally wear prescription glasses, but over-glasses may be provided if it is a safe alternative.

Certain operations may require full face protection, in this case the use of a protective face shield is recommended.

## Gloves

Workshop gloves shall be worn either when:

* + working in any workshop area that poses a potential hazard to the hands or when
  + handling material/equipment that poses a chemical risk.

Workshop gloves can be excluded where a risk assessment has deemed the wearing of the gloves creates a potential hazard. This may include when operating a:

* + Manual lathe
  + Manual milling machine
  + Bandsaw

Gloves are provided to cover these two main categories:

1. A safety protective glove is designed to keep you safe from hazards including cuts, chemical burns, abrasion, or crushing. The Safety protective glove is also known as a work glove. It should be noted that some styles of gloves are more suitable for particular tasks than others. Wearing the right safety gloves can be instrumental in preventing a variety of different short and long-term workplace injuries, including cuts, punctures, burns, or abrasion injuries. Refer to your SOP for the correct gloves for the task to be undertaken.
2. Chemical gloves shall be worn whenever there is risk of contact with chemical materials. These gloves shall be removed before leaving the workshop or answering the phone.

## Activity Specific PPE and Clothing

Some workshop activities require specialised PPE e.g. leather aprons when welding. [This section is for setting out what specialised PPE is used in the workshop, what activities it is used for and how it must be maintained to remain in a serviceable condition.]

# Risk Management

Risk Management is the process of recognising situations that have the potential to cause harm to people and/or property and then doing something to prevent the situation from occurring or minimising its effect if it must occur. Records of all Risk Management are kept in the Procedure folder.

## The Risk Management Process

Risk management follows a standardised process consisting of well-defined steps that lead to informed decisions about controlling the impact of the hazard. These steps are:

1. Hazard identification
2. Hazard Assessment
3. Risk Control
4. Hazard Review

### STEP 1 Hazard Identification

Hazard identification is the part of the process used to evaluate if the situation or item may have the potential to cause harm. Below are some common workshop hazards that are likely to be encountered.

### STEP 2 Hazard Assessment

Risk assessments of all identified hazards should be evaluated using the [University of Newcastle Risk Assessment Matrix](https://www.newcastle.edu.au/__data/assets/word_doc/0018/82035/risk-assessment-template-17-Aug-2015_Final-V7.doc) as this provides a consistent way of assessing hazards and helps prioritise these hazards to have controls developed to minimise or eliminate the risk from the hazard. The outcome of these Risk Assessments and their related SOPs are in the Procedures Folder.

### STEP 3 Risk Control

Once the risk arising from each hazard has been assessed, then the hierarchy of controls should be applied to eliminate, reduce or manage the risk associated with the hazard.

***Figure 2: Risk Management – Hierarchy of Controls***

Controls should be considered in the order shown above and the questions below considered.

|  |  |
| --- | --- |
| *Elimination* | Can the hazard/risk be removed? |
| *Substitution* | Can the work be performed using a method or material of a lower overall risk? |
| *Isolation* | Can the hazard/risk be completely contained during the work? |
| *Engineering* controls | Can a barrier be placed between the worker and the hazard or can the hazardous substance be removed through air ventilation? e.g. use a biological safety cabinet |
| *Administrative* controls | Can the hazard be controlled through rules, procedures and practices? - e.g. rules like safety glasses must be worn |
| *Personal Protective Equipment* | Can the hazard be controlled by providing equipment that protects the individual when worn e.g. workshop coats and gloves. |

### STEP 4 Hazard Review

A review process must be put in place to ensure that the controls that have been agreed upon are efficient and effective. It is also the time to ensure that no new hazards have been introduced by the controls that have been implemented.

All SOPs and Risk Assessments must be reviewed at a minimum every two years.

# General Safety Requirements in the Workshop

## Housekeeping

Good housekeeping helps prevent incidents and injuries, particularly slips, trips and falls and is everyone’s responsibility.

* Keep corridors and doorways clear and ensure clear and defined pathways are maintained. Exercise care when opening and closing doors and entering or leaving areas.
* Keep all emergency egress routes completely clear at all times.
* Keep only the minimum required quantities of chemicals in the workshop area.
* Secure gas cylinders upright to prevent tipping or falling and only those cylinders attached to apparatus to be stored in the workshop.
* Label all safety equipment and maintain in good operating condition.
* Clean up spills immediately and thoroughly using appropriate equipment and materials. If you are unable to rectify the situation, the Workshop Manager / Supervisor should be informed immediately and the area barricaded off to prevent exposure or other risk.
* All workshop waste will be properly disposed of in the correct waste stream (Chemical waste should be disposed of via the chemical waste disposal process).
* Keep work areas free from clutter. Clean up work surfaces after each project or at the end of each day. Ensure that any chemicals, materials or equipment not in immediate use are properly stored.
* Always wash your hands (and remove gloves and lab coats) before leaving the workshop. It may be necessary to wash your hands regularly while in the workshop, especially when handling chemically or other contaminated matter.
* Gloves must be removed before exiting the workshop, touching door handles, and using the telephone.
* Hand-washing sinks must only be used to wash hands in. They must be kept clean and not be used for any other purpose.
* Floors are to be kept tidy and dry.
* Ensure signage for all safety equipment is visible and in good condition.
* All chemical containers must be properly labelled.
* Unattended operating equipment must display an “Unattended Running Notice” sign.
* The last person to leave should ensure all equipment is shut down.

## Waste Management

Waste management includes the collection, transport, treatment and disposal of waste, together with the monitoring and regulation of the waste management process.

In this workshop waste can be broadly categorised into general, chemical, contaminated and recyclable waste. It is the responsibility of all workshop users to ensure that waste is disposed of in the correct way:

### General Waste

Make sure only general waste, such as waste paper and plastic products, is collected in the waste bins lined with plastic bags.

### Chemical Waste

Chemical waste must be treated the same way as the chemical itself. Information on how to dispose of any given chemical can be found in the SDS for that chemical in the SDS folder.

All chemical waste must be stored in appropriate containers with Global Harmonisation System (GHS) labelling to match the contents. If the chemicals would normally be stored in a Dangerous Goods Cabinet than the chemical waste should also be stored in an appropriate Dangerous Goods cabinet which has shelf trays, or a bund system fitted.

Chemical waste can be disposed of through the University Chemical Waste Collection process. Collections are organised on a monthly basis with details of the process found on the [Chemicals and Hazardous Materials webpage](https://www.newcastle.edu.au/current-staff/teaching-and-research/health-and-safety-for-teaching-and-research/laboratory-safety/accordion-lab-safety/chemicals-and-hazardous-materials).

### Contaminated Waste

Contaminated waste is waste which is contaminated by other materials and can include, but not be limited to:

* + Swarf
  + Solid Waste (off-cuts, etc)
  + Liquid wastes (coolants, paints, etc)
  + Oil/Lubricant Waste
  + Solvents

Contaminated waste must be disposed of as per the SDS of any chemical contaminants or its’ manufacturer’s recommendations. Never dispose of any contaminated waste through the general waste process unless it has been verified that this is a legitimate means of disposal.

### Recyclable Waste

Workshops generate substantial amounts of recyclable waste and this can be managed through a 4-step system. The four steps are:

1. Collection
2. Separation
3. Reutilisation
4. Disposal

#### Collection

All recyclable material should be collected.

#### Separation

Material that is to be recycled needs to be sorted into groups depending on the type of material. Some material may be reutilised within the workshop and others grouped together and sent for recycling (once enough have been collected).

In this workshop recycled materials include:

* Steel bar and other steel products
* Etc.

They are retained in containers in ROOM.

#### Reutilisation

Materials which can be reutilised should be set aside for future use by moving to the appropriate storage location to ensure they are available when required.

#### Disposal

Recyclable materials are disposed by:

* [Detail the disposal arrangements such as via a local business, frequency etc. ]

Recycling of materials can also be organised via IFS using a MAXIMO request.

## Electrical Safety

Electrical hazards exist when wires or other electrical parts are exposed. Electrical parts can be exposed if a cover is removed and exposes electrical wires, terminals in motors, appliances, and electronic equipment. Any hazard involving electricity should be isolated and reported to the [Workshop Manager / Supervisor].

### Test and Tagging of Electrical Equipment

All workshop electrical equipment must be checked as per AS/NZS 3760. IFS have a regular inspection schedule, however if additional testing is required or equipment safety tag is found to have expired, this can be arranged via a Maximo request. Workshop specific equipment (excluding office equipment or other equipment deemed low risk) must be tested every 6 months rather than the normal 12-month schedule.

Always check for a valid electrical safety tag prior to using equipment. If it is found to be out-of-date, report this to the Workshop Manager / Supervisor and have the equipment placed out of service.

Equipment that shows obvious damage to its power cable **MUST NOT BE USED.** It must be reported to the Workshop Manger / Supervisor and checked for electrical safety. **DO NOT** tape up a damaged lead.

***Out-of-test equipment must never be used under the assumption it is safe****.*

### Maintenance, repairs and electrical-fault finding

* Always isolate equipment before commencing work
* Use appropriate instruments to test for isolation
* Never work on live equipment unless absolutely necessary
* Use an ELCB protected circuit or portable ELCB device

### Design and construction of new equipment.

General Guidelines

* Document all designs and include circuit diagrams showing all modifications and additions
* All components must be rated and designed for the intended purpose
* Ensure all exposed metal parts are earthed
* Label all equipment ratings including voltage, current or power
* Include a fuse or circuit breaker and clearly mark rating
* Use IEC mains inlets with integral fuses wherever possible
* Protect all wiring from mechanical damage.

### Test instruments

* Must be insulated for the voltages potentially present.
* Suitable for the task.
* All test leads must be checked for damage before using.
* Multimeters should be rated to (CAT III IEC 1010-1)

## Equipment Hazards

Equipment Hazards are associated with working near or on workshop equipment. They vary depending on the equipment used. All equipment should be maintained (as per manufacturer’s recommendations or as per statutory compliance) to ensure it is safe to use and maintenance records kept in the Equipment Folder. Other issues to consider can include exposure to:

* moving parts (e.g. risk of injuries from entanglement, friction, abrasion, cutting, severing, shearing, stabbing, puncturing, impact, crushing, drawing-in or trapping, etc.)
* energy (e.g. electrical, electromagnetic, magnetic, etc.)
* heat or cold
* noise and/or vibration
* radiation
* gas or liquid under pressure (e.g. injuries from injection or ejection by hydraulic systems, pneumatic systems, compressed air, paint sprayers, etc.)
* psychosocial hazards (e.g. stress, job content, work organization, cognitive factors, etc.)

The workshop uses a range of equipment (listed in the equipment register) and can be used in a variety of ways. Risk assessments have been conducted for each piece of equipment and each situation has been considered. If it was deemed advisable to involve specialised/technical expertise (i.e. engineer, safety professional, manufacturer, etc), this was been done during the Risk Assessment process.

The hazards that were identified have an SOP for that activity and will be found in the Procedures Folder.

### Hand Tools

* Make proper use of all safety devices and personal protective equipment.
* Use the correct tool for the job.
* Tools should be fitted with securely fixed handles.
* Edged tools should be kept sharp and ground to the correct angle.

### Power Tools

* Make proper use of all safety devices and personal protective equipment.
* Power tools must be plugged in to an ELCB protected circuit or a portable ELCB protected
* supply.
* Leads and plugs must be in good condition. Any faulty equipment should not be used until it
* has been repaired.

### Large Machinery

* Make proper use of all safety devices and personal protective equipment.
* Where machine guards are installed – use them.
* Clamp the job or vice firmly before starting the machine.
* Always remove chuck keys immediately after use.

## Manual Handling

Manual handling means **using your body to exert force** to handle, support or restrain any object, including people or animals. It is not just lifting or carrying heavy objects. It includes: lifting, pushing, pulling, holding, lowering, throwing, carrying, packing, assembling, cleaning, sorting and using tools.

The term is not limited to handling heavy objects – pushing a trolley or using a keyboard are all examples of manual handling.

**It is much more that just ‘LIFTING’**

Any manual handling activity should have an associated SOP in the Procedures Folders.

Manual Handling and Lifting aids are available for use by workshop personnel and can be found at:

* [Lifting aid name and location. Does it require any special training or licensing to use?]

A University guide to manual handling is provided as Appendix C

## Ergonomic Hazards

Ergonomic risk factors include situations that cause wear and tear on the body and can cause injury. These include repetition, awkward posture, forceful motion, stationary position, direct pressure, vibration, extreme temperature, noise, and work stress. In the workshop these may come from standing at a piece of equipment or bench for extended periods or from strenuous work. Ergonomic hazards should be considered and included in the risk assessment and SOP for each activity.

## Workshop Hazardous Zones

Workshops have areas that pose individual and specific hazards that require treatment separate to the rest of the workshop. [Example areas could include welding areas, spray painting zones or areas utilising specialist equipment. This section should be used to detail these areas, their specific hazards and what the SOPs (in the Procedures Folder) there are for those hazards.]

Dedicated areas may require additional inductions prior to allowing workers unsupervised access. The Workshop Manager / Supervisor can arrange them and the record will be kept in the Induction Folder.

## Chemical Hazards

### Workshop Gases

Compressed, liquefied or dissolved gases are categorised as Class 2 dangerous goods and subcategorised as:

|  |  |
| --- | --- |
| Class 2.1 | Flammable gases (e.g. Acetylene) |
| Class 2.2 | Non-flammable and non-toxic gases (e.g. Argon) |
| Class 2.3 | Poisonous gases (e.g. Ammonia), less likely found in the workshop |

In instances where the gas presents multiple hazards, additional diamonds indicate the subsidiary risks, e.g. Oxygen - Class 2.2 (Non-Flammable, Non-toxic) and Class 5.1 (oxidising agent)

Workshop gases can be hazardous to person and property and should be subject to a risk assessment in the Procedure folder. The potential hazards to be considered are:

* [The nature of the gas itself (is it flammable or oxygen depleting, etc?)]
* [Transportation of the gas cylinders]
* [Storage of the gas cylinders]
* [Gas cylinder restraints]
* [Safety of the gas cylinder (age of the cylinder, labelling, etc) and auxiliary equipment (e.g. welding hoses, regulators and flashback arrestors)]

### Workshop Chemicals

Exposure to chemicals commonly used in workplaces can lead to a variety of short and long-term health effects such as poisoning, skin rashes and disorders of the lung, kidney and liver.

Hazardous substances take many forms, including gas, powder, liquid, solid or dust. Manufacturers and importers of hazardous substances are legally obliged to include warning labels and Safety Data Sheets (found in the SDS folder) with their products. This information offers advice on safe handling practices.

Common hazardous substances in this Workshop include:

* Acids and caustic substances
* disinfectants
* glues
* heavy metals, including mercury, lead, cadmium and aluminium
* paint
* pesticides
* petroleum products
* solvents.

## Working Alone

Generally, working alone in a workshop does not increase the risk of being injured, however it does create issues for seeking support should an incident occur, especially if this were outside core business hours.

While not mandatory, the use of Man-Down Duress alarms for high risk work is recommended. Information on these types of systems (including setup costs) can be obtained through IFS.

In this workshop, if you are Working Alone [insert the rule for working alone]

## Working After Hours

The workshop does not encourage any worker to work outside of core hours. If working out of core hours is considered necessary, then it must under all circumstances be authorised. In the first instance the Workshop Manger / Supervisor should be consulted, and the after-hours be authorised by [name of authorising person]. There is strictly no working alone after hour. A ‘buddy’ who is inducted into the workshop must always be present.

All workers who are authorised to work outside core hours must check-in with Security prior to beginning work and checkout prior to leaving campus.

## Spills

A spill kit (or spill kits) are available in the workshop to be used for absorbing spills and preventing increased contamination. The location of the spill kits is identified on the workshop layout. Personnel should be shown the location of spill kits as part of their induction and be aware of this location prior to using any material that may require its use in an emergency event.

**All major spills must be reported to** [name of responsible person]**.**

A major spill is one in which:

1. hazardous materials contact skin, eyes, etc.
2. a break in the skin occurs
3. the spill splashes over an area larger than 30 cm in diameter
4. the extent of the spill is undetermined
5. the spill involves an agent transmitted by aerosol.

Refer to the Spill Clean-up SOP in the Procedures Folder for a detailed description of the process.

# References

AS/NZS 3760:2010 In service safety inspection and testing of electrical equipment

AS 1319-1994 Safety signs for the occupational environment

[NSW EPA Waste Classification Guidelines](https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines)

[NSW Work Health and Safety Act 2011 No 10](https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjho-2A5_rzAhWdzjgGHQ4uBoYQFnoECBAQAQ&url=https%3A%2F%2Flegislation.nsw.gov.au%2Fview%2Fhtml%2Finforce%2Fcurrent%2Fact-2011-010&usg=AOvVaw1ktibXh6wVdwlrFgCGBlWD)

[NSW Work Health and Safety Reg 2017 (404)](https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjo2fqV5_rzAhUs3jgGHU5ZDt4QFnoECAUQAQ&url=https%3A%2F%2Flegislation.nsw.gov.au%2Fview%2Fhtml%2Finforce%2Fcurrent%2Fsl-2017-0404&usg=AOvVaw178FQpMKf4qXm-VrgjqdI_)

# REVIEW

This workshop safety manual should be reviewed when changes are made to the workshop, as an outcome of an incident review or at minimum every two years.

# DOCUMENT HISTORY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Version** | **Details of changes** | **Reviewed by** | **Approved by** |
|  | 1.0 |  |  |  |
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# Appendix A - Site Specific Induction Checklist

**Workshop Induction checklist**

|  |  |  |  |
| --- | --- | --- | --- |
| Worker’s name: |  | Supervisor’s name: |  |
| Worker’s position: |  | Worker’s start date: |  |

**Explain your Workshop:**

☐ the structure

☐ the type of work

☐ normal hours of operation

☐ out of hours access and security procedures

**Introduce your key people and their roles:**

☐ [workshop manager / supervisor]

☐ first aid officer/s

☐ co‑workers

☐ health and safety representative

☐ building warden

**Show your work environment:**

☐ eating facilities

☐ locker and change rooms

☐ phone calls and message collecting system

☐ wash and toilet facilities

☐ workstation, tools, machinery and equipment used for job

☐ location of PPE, first aid kit, and other emergency equipment

**Explain your workplace health and safety administration:**

☐ consultative and communication processes, including

☐ how to raise issues and receive feedback

☐ times and purpose of safety/staff toolbox meetings

☐ incident reporting procedures, including:

☐ necessity of reporting hazards, near misses and incidents

☐ where to find reporting system (online)

☐ reporting broken or damaged equipment

**Explain your policies and procedures on:**

☐ workshop rules including dress requirements

*Tick all that apply and list others below:*

|  |
| --- |
|  |
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|  |

**Show your workplace health and safety environment:**

☐ information on workplace hazards and controls

**Safe work procedures** (SWPs, JSAs, etc.)

e.g., *using machinery, receiving stock. List all that apply:*

|  |
| --- |
|  |
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|  |

**Safe Work Method Statements** (SWMSs)

*for high-risk work only, e.g., work at heights. List all that apply:*

|  |
| --- |
|  |
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☐ emergency procedures for fires, bomb threats, floods, etc.

☐ fire extinguishers, exits, evacuation assembly area

☐ first aid facilities such as the kit and room

☐ safe use and storage of hazardous substances, including:

☐ how to read a safety data sheet

☐ location of safety data sheets folder

☐ emergency procedures, e.g., eye wash locations

☐ safe use and storage of personal protective equipment (PPE), including:

☐ when and how to use PPE

☐ how to clean, maintain and store PPE

☐ location of PPE

☐ report damaged PPE

**Explain your training:**

☐ first aid, fire safety and emergency procedures training

☐ hazard‑specific training (e.g. working at height, hazardous substances)

☐ on the job training in safe work procedures (e.g. when and how to use mechanical aids)

☐ [job‑specific training (e.g. if a license or permit is required)]

**Explain your security:**

☐ cash

☐ for each worker and for their personal belongings

☐ procedures for the workplace buildings

**Conduct a follow-up review:**

☐ answer and ask questions

☐ repeat any training required or provide additional training if needed

☐ review work practices and procedures with the worker

**Comments/follow-up action**

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| --- | --- | --- | --- |
| **Induction acknowledgement** | | | |
| Conducted by |  | | |
| Signature |  | Date |  |
| Worker signature |  | Date |  |

# Appendix B - Training Record

|  |  |  |
| --- | --- | --- |
| **[Workshop name] WORKSHOP**  **APPROVED Users**  **List** | **Document Number:**  **[Document #]** | Uni LOGO_Alternate |
| **APPROVED USERS LIST**  **(For Equipment in These Areas – [Room numbers covered])** | | |

|  |  |
| --- | --- |
| Surname |  |
| First Name |  |
| Employer |  |
| Unit |  |

I [Workshop Manager/Supervisor] [Name of authoriser] authorise the above person to operate the equipment as stated below and certify that they have the necessary qualifications/training to do so.

Signed …………………………..

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EQUIPMENT | BRAND | APPROVED | DATE | RESTRICTIONS |
|  |  |  |  | [Competency, Licence, Etc] |
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# Appendix C – Manual Handling Guidelines for Staff and Students

This summary outlines general and **IMPORTANT** points in any manual handling technique.

No manual handling activity is risk free and where practical such activities should be avoided or minimised. If it is necessary to proceed with the activity the following points should be considered. **It is highly important to conduct a risk assessment in the manual handling before any attempts are made to move an item that you are unsure of. For a risk assessment use the following link.**

1. ASSESS THE SITUATION

Assess the weight, shape and note any sharp edges. Is the load stable and the weight evenly distributed? Can you lift this load safely or is it a two person lift? How far do you have to carry the load? Is your path clear? Can the load be broken into smaller pieces?

1. SIZE UP THE LOAD

Test the weight by lifting up one corner before trying to move it. If you feel the load is too heavy ask for help.

1. USE GOOD LIFTING TECHNIQUES

**Stand close to the load** facing in the direction you intend to travel, with your feet spread to create a firm base.

**Bend your knees** and keep your back in a natural line. Don’t bend your knees fully as this may leave little power to lift.

**Grasp the load firmly.** The best grip is one in which the fingers are curled into a hook.

**Raise your head.**

**Lift with your legs -** Use your leverage, momentum, balance and timing for a smooth action. Move your feet as necessary.

**Avoid twisting** the body during lifting. Do not bend sideways.

**Hold the load close** to the centre of your body.

***ALWAYS LIFT WITH YOUR KNEES AND NOT YOUR BACK. Never bend over to reach an object.***

1. CARRYING A LOAD

**Keep the load close to your body**, with your arms and chin tucked in.

**Avoid twisting your body**, stooping, bending or leaning back. If you need to change direction move your feet.

**Don’t change your grip** unless the load is sufficiently supported

**Don’t block your vision** with the object you are carrying

**Rest if you feel fatigue.**

1. UNLOADING

**Bend the knees keep the back straight** to lower the object

**Keep the weight close to the body**

If the load is to be placed on a bench, **rest it on the edge and push it forward** with your arms and body

**Be careful of fingers and toe**

**Acknowledgement:** Thank you to the University of Wollongong.

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