Automotive workshops

Work health and safety guidelines

SafeWork SA

information ➤ advice ➤ support

Supported by

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SafeWork SA

SafeWork SA has forged an important partnership with a range of organisations representing South Australia's automotive workshops.

We share a common purpose – keeping workers safe and helping employers in this industry sector achieve positive safety outcomes in line with current work health and safety laws.

The collaborative production of this guide would not have been possible without feedback and support from a range of industry stakeholders and technical specialists.

They have helped create a work health and safety management resource that is relevant to the hazards and risks common within the automotive workshop industry, and is adaptable to suit the nature, size and complexity of businesses across South Australia.

SafeWork SA thanks the following organisations for their involvement in and support of this initiative:

- Apprentice Employment Network South Australia (previously Group Training Australia SA)
- Australian Workers' Union
- Business SA
- Consumer and Business Services (Attorney General's Department)
- Motor Trade Association SA
- RAA
- WorkSafe Victoria, for use of their guidance material as a base source of information.

Contents

As a Person Conducting a Business or Undertaking (PCBU) one of your key responsibilities is ensuring that nobody's health and safety is put at risk by what your business does, what your workers do or the work that is done at your workplace.

This includes anyone who carries out work for you on a full-time, part-time or casual basis, apprentices and trainees, labour hire workers, contractors, volunteers and students participating in a school-based work experience program.

Workers have responsibilities too – to take reasonable care of their own safety and ensure they don't impact on the health and safety of fellow workers, customers or visitors. They must also comply with reasonable instructions and co-operate with any work health and safety policies and procedures that are in place.

Some of the workplace safety hazards related to automotive workshops are obvious, such as vehicles falling from hoists or jacks, moving vehicles or tyres exploding during inflation.

Other risks are less obvious, such as the long-term effects of exposure to asbestos fibres or fumes from solvents and paints.

Injury statistics show that motor mechanics and car detailers (spray painting and powder coating) are also at high risk from muscular stress injury to their back, shoulders or knees, with a large proportion of these injuries resulting from manual handling or slipping, tripping and falling.

And in many workplaces new and young workers, including apprentices, are at greater risk of injury or death due to their lack of experience, maturity and awareness.

Breaking the workplace injury chain at an early stage is achievable, through effective work health and safety management, strong leadership and a commitment from everyone to make work as safe as it can be.

SafeWork SA is focused on improving safety in South Australian workplaces and minimising the risk of worker injury. We do this through active involvement and engagement with particular industry sectors, and by providing information, advice and support.

We want to help you take the guesswork out of what's expected when it comes to work health and safety standards. This guide is designed to help you do that.

Using this guide

This guide will help you understand your work health and safety responsibilities and the importance of safety in your business.

Start out by reading the *Simple steps to safety* section on pages 4-5. Delve a little deeper into these steps by completing the quick safety scans at the end of this first section to see how you currently rate on these basic aspects of setting up a safe workplace.

The following tabbed sections cover some of the most common risks faced by automotive workshops and provide practical safety solutions and tips for compliance. Each section also has a set of quick safety scans to help you measure (self audit) how well you are currently doing and identify areas for improvement. Select those that are relevant to the nature, size and complexity of your business. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve.

The final section contains proformas for forms and records you might commonly need to document what you are doing to set up, maintain and improve your work health and safety practices. These are sample documents to get you started. Personalise and tailor them to suit your particular business needs and operations.

Finding solutions

Finding safety solutions can be as simple as asking your workers for their ideas – that's consultation at its best.

Look at what others are doing well, ask for help from an industry association or group, get information from suppliers or manufacturers, or check relevant Codes of Practice and Australian Standards.

Safe behaviours should not be seen as the main means of injury prevention. Safety solutions that rely on administrative controls such as procedures, training, high levels of supervision and monitoring for success need effort and attention to maintain them.

Engineering, design and physical changes, such as an improved workplace layout and similar permanent control measures, are much more effective and sustainable solutions.

Search widely for solutions and challenge both yourself and your workers about the way you all work together.

Business benefits

Businesses that put effective work health and safety management solutions in place can benefit from:

- increased productivity
- less down time caused by safety issues and injury-related absenteeism
- increased morale and teamwork
- avoiding injury-related costs
- avoiding legal action or penalties for non-compliance.

Simple steps to safety

You can go about setting up your safe workplace by following these simple steps.

Getting started

Successful safety cultures are led from the top, where your actions and attitudes send a message to the people who work in your business that you care about and are serious about their health and safety.

Commit to work health and safety by defining your own responsibilities and those of your workers, team leaders and supervisors. Provide the necessary resources to meet those responsibilities.

A simple written work health and safety policy, developed in consultation with your workers, will go a long way towards achieving this. A sample *Work Health and Safety Policy* can be found on on page 75 – this is a sample document for you to personalise and tailor to suit your particular business needs and operations. Your policy should:

- note everyone's duties and responsibilities
- state a commitment to improving work health and safety, and how best to achieve a safe workplace
- be dated and signed, displayed at the workplace and accessible to workers
- be regularly reviewed.

Talking with your team

Involve the people who work in your business to identify and resolve health and safety issues.

Effective consultation also encourages greater awareness of issues and can lead to an improved safety culture and outcomes. Consultation can be through informal toolbox talks or organised committees, while general safety information can be provided through notice boards and signage. Use the sample *Record of Safety Discussions* on page 77 to help note what has been talked about and actions taken.

Managing hazards

Managing hazards should be a continuous improvement process that finds problems (identify hazards), gathers information about them (assess the risks) and solves them (control the risks).

Use the hierarchy of control approach (refer to pages 6-7) to help you mitigate the risks.

Level 1 is the most effective control measure and level 3 the least effective. A combination of all the hierarchy control measures can be used.

Identify all hazards/tasks that can pose a risk to the people who work in or for your business as well as your customers and visitors. Take action to control the risks. Develop simple and safe work procedures detailing how this is done.

A sample *Hazard List and Risk Assessment* and *Risk Control Plan* and can be found on pages 79-81. These are sample documents for you to personalise and tailor to suit your particular business needs and operations.

Informing, training and supervising

Provide workers with easy to understand information and training about particular job hazards and how to work safely. Provide appropriate supervision to ensure that what's taught at training is being followed.

Make sure that workers who are new to your business are correctly inducted and adequately supervised.

A sample *Induction Checklist* can be found on page 73. A sample *Training Plan* and *Training Record* can be found on pages 85-87. These are sample documents for you to personalise and tailor to suit your particular business needs and operations.

Maintain a safe workplace

Once safe systems and procedures are in place, they need to be maintained through an ongoing focus on health and safety.

Maintain a safe workplace by:

- carrying out regular workplace inspections
- ensuring equipment and tools are safe to use and maintained
- fixing high risks immediately and others as soon as possible in order of level of risk
- discussing common injuries, work practices and procedures with workers
- keeping up-to-date knowledge of product labels, Safety Data Sheets and manufacturer's instruction manuals
- having an easy to use hazard, near miss and injury reporting process as well as reviewing incident reports
- planning and regularly testing of emergency procedures (e.g. for fire, medical, chemical leaks)
- keeping workers informed of any changes, and providing training opportunities when anything new at work is introduced.

Record keeping

Document what you're doing to maintain and improve your work health and safety. Keeping records will help you to monitor the health and safety performance of your business as well as meet your legal requirements.

You will need to keep the following records:

- all incident/hazard reports
- hazardous chemicals and asbestos registers (if those substances are in your workplace)
- plant registration documents
- tests, maintenance, inspection and repairs for specific items of plant.

It's also useful to keep records of:

- hazard identification, risk assessment and control processes
- maintenance of all items of plant and equipment
- workers' induction and training.

A sample *Incident/Hazard Report* can be found on page 89 and a sample *Hazardous Substance Register* on page 91. These are sample documents for you to personalise and tailor to suit your particular business needs and operations.

Monitoring and reviewing to improve

Managing and improving health and safety needs to be an ongoing process.

Safety processes and operations evolve with time, and workers and equipment come and go, changing the risks in your workplace.

Having followed these steps and established the ways you will work safely (known as your safety systems), you should regularly review and monitor how effective they are, as well as make any necessary adjustments to keep them up-to-date and continually improve.

Other responsibilities

Your work health and safety responsibilities also include the following:

Fire and emergency procedures

Develop fire and emergency procedures (e.g. fire extinguishers, alarms, emergency contacts), evacuation plans, and testing of procedures and plans.

First aid

Determine first aid requirements (e.g. first aid kits, people trained to administer first aid).

Work environment and facilities

Ensure tools and equipment are safe to use and are maintained and regularly serviced.

Supply workers with appropriate safety gear, where necessary.

Provide facilities for workers (e.g. toilets, drinking water, washing and dining areas, shelter).

Provide and maintain a physical work environment free of heath and safety risks (e.g. workspace, lighting, ventilation).

Ensure workers do not eat food in the workshop area (e.g. provide a separate dining area).

Hierarchy of risk control

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest as shown in diagram on page 7. This ranking is known as the hierarchy of risk control.

You must always aim to eliminate a hazard, which is the most effective control. If this is not reasonably practicable, you must minimise risks by working through the other levels in the hierarchy.

Level 1 control measures

The most effective control measure involves eliminating the hazard and associated risk. The best ways to do this are by either removing the hazard completely (e.g. getting rid of trip hazards, disposing of unwanted chemicals), or not introducing the hazard into the workplace in the first place (e.g. work at ground level, not at height, to eliminate the risk of a fall).

Eliminating hazards is often cheaper and more practical to achieve at the design or planning stage of a product, process or place used for work.

In these early phases, there is greater scope to design out hazards or incorporate risk control measures that are compatible with the original design and functional requirements. For example, a noisy machine could be designed and built to produce as little noise as possible, which is more effective than providing workers with personal hearing protection.

It may not be possible to eliminate a hazard if doing so means that you cannot make the end

product or deliver the service. If this is the case, eliminate as many of the risks associated with the hazard as possible.

Level 2 control measures

If it is not reasonably practicable to eliminate the hazards and associated risks, you should minimise them using one or more of the following:

- Substitute the hazard with something safer (e.g. replace noisy machinery with quieter models).
- Isolate the hazard from people – physically separate people from the source of harm by distance or using barriers (e.g. install guard rails around service pits, store chemicals in a fume cabinet).
- Use engineering controls – introduce a mechanical device or process that is physical in nature (e.g. use trolleys or hoists to move heavy loads, place guards around moving parts of machinery, install residual current devices).

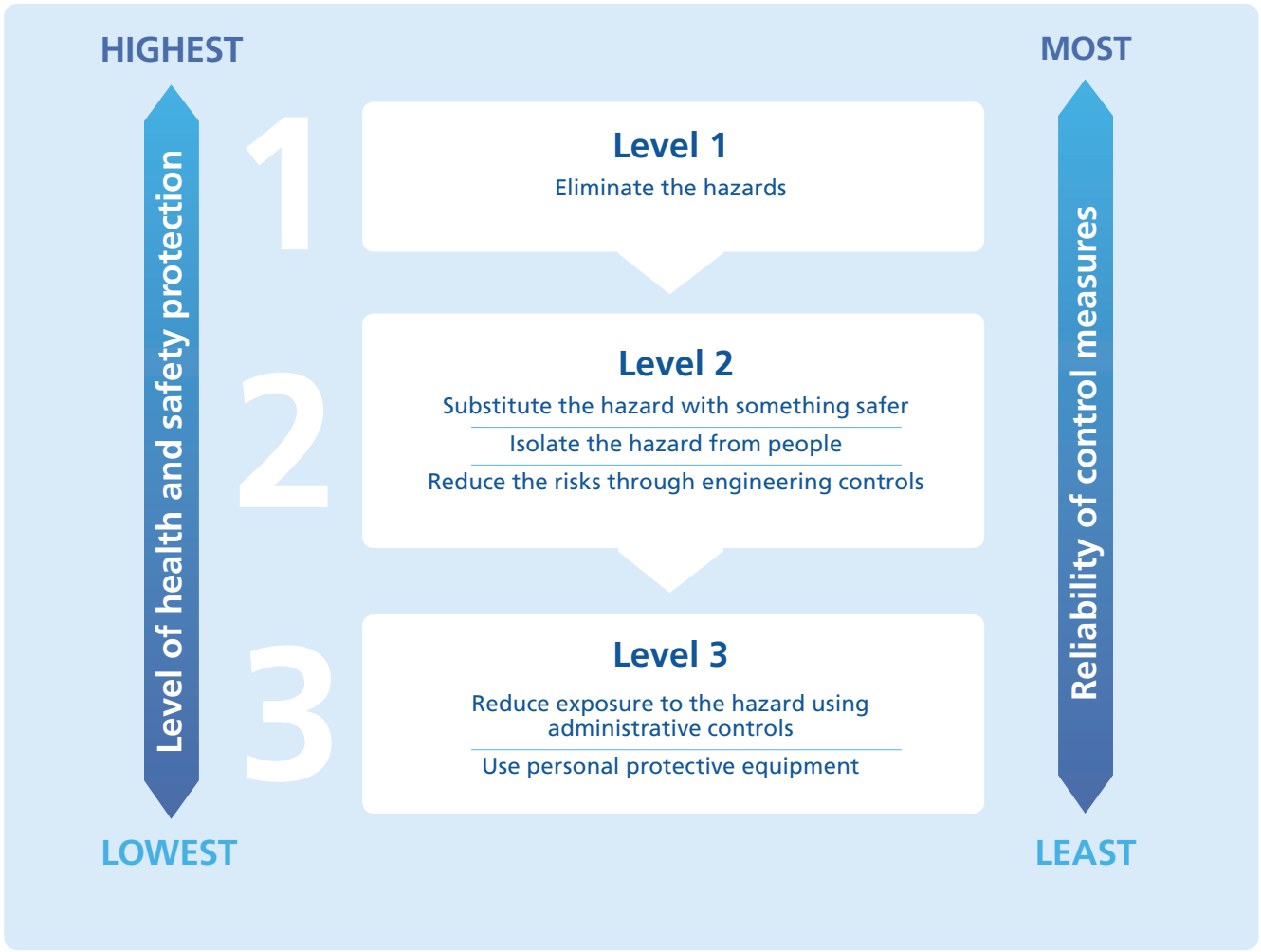
Level 3 control measures

These control measures do nothing to control the hazard at the source, relying instead on human behaviour and supervision. Used on their own, they tend to be least effective in minimising risks.

Two approaches to reducing risk in this way are:

- administrative controls – work methods or procedures designed to minimise hazard exposure (e.g. develop procedures on how to operate machinery safely, limit exposure time to a hazardous task, use hazard warning signs)
- personal protective equipment (PPE) – which limit exposure to the harmful effects of a hazard, but only if worn and used correctly (e.g. ear muffs, respirators, protective eyewear).

Administrative controls and PPE should be used as a last resort when no other practical control measures are available, as an interim measure



Further information

Work health and safety laws, codes of practice and Australian Standards

You should be familiar with the *Work Health and Safety Act 2012* (SA) and the *Work Health and Safety Regulations 2012* (SA). These laws protect all workers in South Australia, including employees, contractors, subcontractors, outworkers, apprentices and trainees, work experience students, volunteers and employers who perform work. To access the full Act and Regulations, visit **legislation.sa.gov.au**.

The following supporting Codes of Practice provide further practical guidance on the basics of setting up a safe workplace for people responsible for managing risks to health and safety:

- *Code of Practice: How to Manage Work Health and Safety Risks*
- *Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination*
- *Code of Practice: First Aid in the Workplace*
- *Code of Practice: Managing the Work Environment and Facilities.*

Find all the Codes at **safework.sa.gov.au/cop**.

Other Codes of Practice that are specific to the types of hazards and risks found in automotive workshops are listed in individual sections of this guide, as are relevant Australian Standards, national guidance material and other useful publications and information.

Australian Standards can be searched for and purchased in either electronic or hard copy format from the online shop at **saiglobal.com**, or they can be borrowed for free from the SafeWork SA Library.

Product safety recall

Subscribe to the recalls section of the Product Safety Australia website **productsafety.gov.au** for daily recall notifications. These can then be delegated to one or two responsible workers who are tasked with checking for and removing any recalled products from use.

Ask our advisors for help

Our experienced work health and safety advisors can help you by providing free information, advice and support tailored to your workplace and the work you do. They have no inspector powers, so you can be comfortable asking them to help you.

We'd love to visit your workplace to help you find solutions to identified hazards and risks, lead an information session or participate in toolbox meetings or safety walks.

We can also help you implement your own safety management system – it's easy when you know how.

Call us on **1300 365 255** to book a free advisor's visit at a time and place that suits you.

Go to **safework.sa.gov.au/freeadvice** for more information.

Quick safety scans – simple steps to safety

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the information provided earlier in this section to help you.

Getting started	Always	Sometimes	Never
You have a WHS policy which includes consultation, managing hazards, informing/ training/supervising, maintaining a safe workplace, monitoring and reviewing	☐	☐	☐
The WHS policy is displayed and easily accessible	☐	☐	☐
The WHS policy is regularly updated	☐	☐	☐

Talking with your team	Always	Sometimes	Never
Workers are encouraged to be involved as you develop and later review your work health and safety policy and procedures	☐	☐	☐
You have discussions or consult regularly with workers about health and safety issues	☐	☐	☐
Records are kept of meetings, feedback, decisions and action items, and safety solutions are regularly reviewed for effectiveness	☐	☐	☐
You have procedures for resolving issues	☐	☐	☐

Managing hazards	Always	Sometimes	Never
Hazards are identified and their risks considered	☐	☐	☐
Control measures are implemented for all identified hazards	☐	☐	☐
Safe work procedures are developed for each work activity, with worker input	☐	☐	☐
Hazard identification, risk assessment and control processes are in place	☐	☐	☐

Informing, training and supervising	Always	Sometimes	Never
You speak to workers about their training needs	☐	☐	☐
A training plan is in place	☐	☐	☐
Records are kept of each worker's training	☐	☐	☐
Workers are trained to follow safe work procedures and can demonstrate their ability to do tasks safely	☐	☐	☐
You supervise workers in their tasks	☐	☐	☐
You have a new worker induction program/checklist	☐	☐	☐
New workers are adequately supervised until they can demonstrate task competencies	☐	☐	☐
There is a procedure for visitor/contractor sign-in and access to the workplace	☐	☐	☐
You have an induction process if visitors/contractors will access hazardous areas	☐	☐	☐

Maintain a safe workplace	Always	Sometimes	Never
Regular safety checks/inspections are carried out	☐	☐	☐
You have a reporting process for hazards and incidents/injuries (including near misses)	☐	☐	☐
Incident reports are reviewed	☐	☐	☐
Incident report forms are used	☐	☐	☐
Tools and equipment are kept in good condition, and regularly serviced and maintained	☐	☐	☐
All notifiable incidents are reported to SafeWork SA	☐	☐	☐

Record keeping	Always	Sometimes	Never
Induction records are kept for five years from the date of the last entry	☐	☐	☐
Worker training records are kept	☐	☐	☐
You maintain a hazard register	☐	☐	☐
You maintain a chemical register	☐	☐	☐
You maintain an asbestos register	☐	☐	☐
Plant registration details are kept and easily accessible	☐	☐	☐
Records are kept of testing and inspection of items of plant	☐	☐	☐

Monitoring and reviewing	Always	Sometimes	Never
You regularly review your safety processes with your workers	☐	☐	☐
You investigate all incidents or near misses to identify any safety gaps in your business	☐	☐	☐

Quick safety scans – other responsibilities

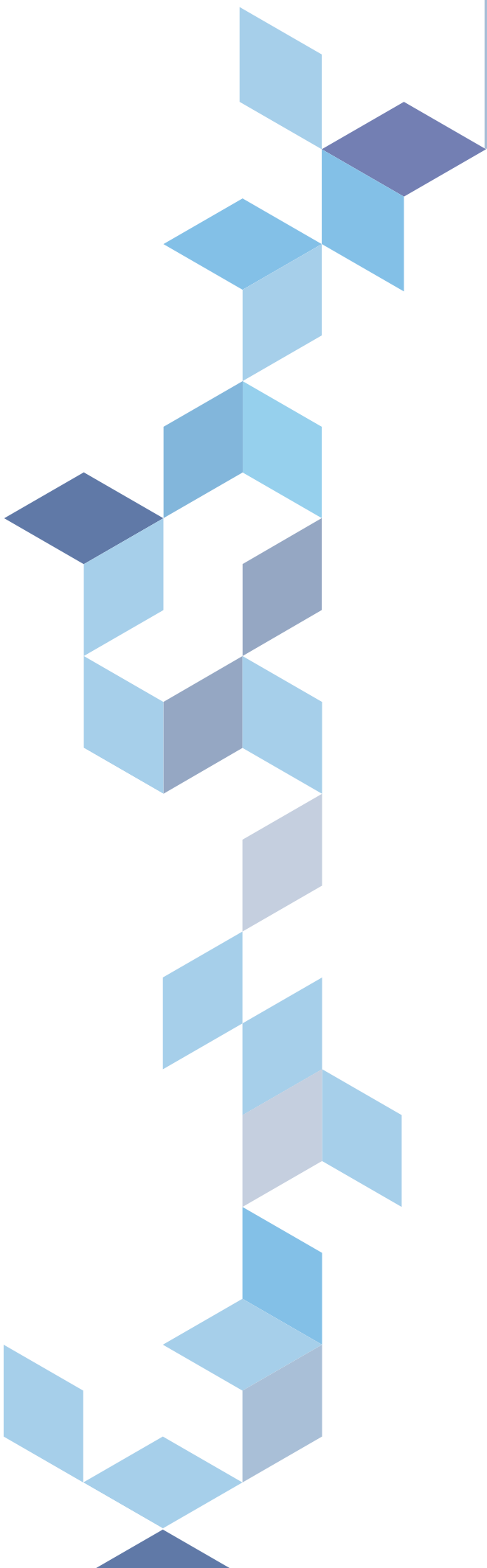
Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick in this section 'Sometimes' or 'Never' will need action to fix or improve. Use the information provided earlier in this section to help you.

First aid	Always	Sometimes	Never
You have done a risk assessment to determine appropriate first aid requirements	☐	☐	☐
Approved first aid kits and equipment are provided, maintained and accessible	☐	☐	☐
An adequate number of people are trained to administer first aid	☐	☐	☐
Eye washing facilities are provided	☐	☐	☐
First aid records are kept	☐	☐	☐
First aid signs are posted	☐	☐	☐

Fire and emergency procedures	Always	Sometimes	Never
Correct types of fire extinguishers are provided, located and signed appropriately	☐	☐	☐
Fire extinguishers are regularly maintained	☐	☐	☐
Workers are trained in fire-fighting equipment use	☐	☐	☐
Fire-fighting equipment is in good condition	☐	☐	☐
You have an emergency response plan and evacuation procedure in place	☐	☐	☐
You have a fire alarm system and carry out system tests and emergency drills	☐	☐	☐
Emergency lighting is available, visible and periodically tested	☐	☐	☐
Emergency exits are clearly signposted and unobstructed	☐	☐	☐
Smoke detectors are fitted, tested and maintained	☐	☐	☐
Emergency contact numbers are displayed	☐	☐	☐

Work environment and facilities	Always	Sometimes	Never
Kitchen/lunchroom facilities are adequate and clean, well lit and well ventilated	☐	☐	☐
Drinking water is available	☐	☐	☐
Toilets (lockable) and showers/washing facilities/changerooms are adequate and clean (incl. sanitary units), well lit and ventilated, well provisioned	☐	☐	☐
Protective clothing is provided (and laundered, if appropriate)	☐	☐	☐
Secure personal storage is provided for workers	☐	☐	☐
Lighting is adequate for work-specific tasks/locations (e.g. lead lights) and in other public areas (e.g. walkways, offices)	☐	☐	☐
Lighting is clean and in good condition, and diffusers are in place	☐	☐	☐
Windows are clean and unbroken	☐	☐	☐
Workers are able to control incoming natural light	☐	☐	☐
Ventilation is adequate for work tasks/areas (check for temperature, draughts, odours, lack of fresh air)	☐	☐	☐
Heating and/or cooling operates at a comfortable level	☐	☐	☐
You have a process in place for work in extreme heat or cold	☐	☐	☐
Cleaning equipment and materials are available, and floors are kept clean	☐	☐	☐
Metal rubbish/waste storage bins are provided	☐	☐	☐
Waste (general and hazardous) is regularly removed	☐	☐	☐
Work areas and benches are tidy and uncluttered	☐	☐	☐
You have a process in place for isolated or remote workers	☐	☐	☐
You have an effective means of communication with isolated or remote workers (e.g. mobile/satellite phone, UHF radio)	☐	☐	☐

Hazardous manual tasks



Hazardous manual tasks

Bending, stretching and reaching movements, static lifting and positioning tasks – either with high, sudden, repeated or sustained force – can lead to stress on the body, muscle strain, overexertion
and injuries.

Carrying out work at the limit of reach or in awkward postures away from the body's centre of gravity requires muscles to work harder. When these postures are held for too long, muscular or spinal injuries can occur.

Look at reducing heavy lifting or working in sustained or awkward postures by using mechanical aids and devices (e.g. tyre underslides, overhead-mounted body support harnesses).

If equipment exists to help reduce the risk of body stressing, it should be used. You may already be using tools powered by compressed air, hoists, cranes and lifting hooks, bead breakers and body underslides to get under vehicles.

Equipment and devices you can use include:

- vacuum lifters for windscreen insertion
- hoists when detailing
- hip-height roller conveyors and ramps to load or move tyres
- order picking ladders with load tables for stock access
- pads and body tables for comfortable work in footwells and under dashes
- castors on heavy toolboxes.

Further information

Code of Practice: Hazardous Manual Tasks

safework.sa.gov.au/cop

SafeWork SA's *Hazardous Manual Tasks: Overview* and *Risk Management Worksheet* can be used to help you assess individual manual tasks.

safework.sa.gov.au

Manual tasks

Hazards/risks

Increased weight equals increased risk: People differ in height, weight and physical capacity, so it is difficult to define what is an unsafe weight for everyone. However as a general rule, if a manual task seems difficult or strenuous, then it may present a significant risk. Discomfort can be an early warning sign, especially if it reoccurs the next day or continues after days off.

The risk is not just about weight: Often the risk is due to a combination of weight and posture, such as bending forward, and movements such as holding the load away from the body or twisting, as well as the shape or configuration of the load.

Manual tasks can cause gradual wear and tear to the body: Damage to the body can build up over time.

The risk of injury is cumulative where repetitive movements or fixed/awkward postures are concerned: Regardless of how many different tasks a worker might perform each day, injury risk can exist if the total time spent performing similar postures or actions exceeds one hour.

Young and new workers: Workers who are young and still developing physical strength, and any new worker lacking experience, are at greater risk of injury.

Safety solutions

Carry out workplace inspections and observe manual tasks, check injury/hazard reports, and identify any relevant contributing factors (e.g. slippery floors).

Modify workplace layout and equipment where possible (e.g. automate the manual tasks, replace hand tools with power tools).

Use lifting aids (e.g. jigs, slings, dollies) that are adaptable to the size/shape of handled items (e.g. engines, transmissions).

Deliver goods or equipment directly to the point of use to eliminate multiple handling.

Modify working loads (e.g. redistribute the weight, or replace heavy items with lighter, smaller, more easily handled items).

Redesign work patterns (e.g. change the frequency and type of tasks done by workers, rotate workers between tasks).

Ensure everyone has both general and specific hazardous manual task training, especially young and new workers.

Consult with workers before purchasing any new equipment and tools. Ensure they are designed for safe use and are a best match to both the worker and task needs.

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. workers who need to carry out tasks in extreme heat or cold, wind or rain)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Wheel and tyre fitting

Hazards/risks

The primary risks arise from high force and awkward postures during manual handling, rotating parts, nuisance dusts and asbestos (from brake linings), nipping and trapping points, exposure to noise, falling vehicles, nearby traffic, compressed air and tyre/wheel explosion due to defective or split rims.

Safety solutions

Use vehicle hoists, wheel balancers, tyre changers and mechanical aids.

Roll, rather than carry, tyres and wheels when moving them over a distance.

Deflate tyres to minimise potential explosion hazard.

Use chocks to prevent movement of vehicles when they are being raised or lowered vehicles on jacks.

Place wheels firmly on mountings before nuts are done up evenly and firmly.

Visually inspect tyres and valves for damage and wear.

Follow the manufacturer's specifications for tyres and rims.

Use restraining devices when inflating tyres on split rim assemblies.

Use tyre cages when inflating tyres.

Train technicians in safe work practices and ensure they follow them.

Provide regular training sessions in correct manual handling practices.

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. eye and ear protection, high-visibility clothing)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Working inside vehicle cabins

Hazards/risks

Working inside the confined and awkward spaces within vehicle cabins, often for sustained periods, can result in body-stressing injuries.

These risks can be minimised or eliminated by applying practices that change the way the work is done or better support the worker and/or the tools.

Safety solutions

Remove seats or other items to improve access.

Raise vehicles on a hoist to enable easier access under the dash from a standing position.

Change the vehicle working angle and height by using a lifting device (e.g. hoist) to improve access to the work area.

Use a spacer or filler (e.g. beanbag or foam equivalent) to fill a footwell, if it improves the working position.

Support the tools and the worker, so that muscle effort goes into using, not holding (e.g. use lanyards, magnetic clamps).

Use powered tools (e.g. air operated) to reduce time spent working in constrained, awkward postures.

Use braces to support the load (e.g. when undoing dashes).

Use vacuum lifters to hold and position windscreens.

Ensure there is adequate lighting (e.g. lead lights).

Working under bonnets

Hazards/risks

Associated risks include over-reaching, awkward or sustained postures, poor lighting and unguarded parts (e.g. belts, fans).

Safety solutions

Adopt working positions between shoulder and knee, and close to the body.

Raise vehicles to approximately waist height to remove the need to bend as far forward.

Ensure postures are not held for long durations through job rotation, using mirrors to reduce time exploring the engine, and using purpose-built jigs.

Provide protective pads to allow for resting of the upper torso on vehicles being worked on (also prevents paintwork or panel damage).

Use overhead-mounted body support harnesses to reduce back strain.

Provide powered tools (e.g. air operated tools) that reduce the time spent applying force while working at the limits of reach.

Remove the bonnet to reduce awkward work positions.

Provide a stable step to give access to the engine bays of taller vehicles.

Use a hoist to give access from underneath, if this improves the working position.

Reduce the weight before handling (e.g. drain fluids before lifting).

Ensure there is adequate lighting (e.g. lead lights).

Working under vehicles

Hazards/risks

Associated risks include poor lighting, cramped working conditions, awkward or sustained postures, hot engine parts and hazardous substances (e.g. fuels, fluids).

Safety solutions

Improve the worker's access (e.g. use of creepers).

Improve support for the worker (e.g. use a chair with head support that can be tilted).

Change the vehicle working angle and height by using a lifting device (e.g. ramps or side supports) to improve access to the work area.

Provide powered tools (e.g. air operated) that reduce the time spent applying force while working at the limits of reach.

Support the tools as well as the worker so that muscle effort is reduced.

Reduce the need to hold or support parts being removed (e.g. use dollies, slings etc).

Reduce task length for above-shoulder work (e.g. remove entire units that can then be worked on at a bench).

Provide differing height vehicle hoists or platforms for workers to stand on, and use in-ground pits.

Ensure there is adequate lighting (e.g. lead lights).

Provide personal protective equipment (PPE) that is appropriate for the nature of the work (e.g. eye and hand protection) and of a suitable size and fit, and ensure that it is maintained in good condition.

Further information

SafeWork SA:

- *Safety Alert – Truck tipping and tilting trays*

safework.sa.gov.au

Quick safety scans – hazardous manual tasks

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Manual tasks	Always	Sometimes	Never
Risks (e.g. handling heavy and awkward items) are identified, assessed and controls implemented	☐	☐	☐
Sustained and repetitive tasks in awkward postures are minimised	☐	☐	☐
Workers can vary their posture and pace throughout tasks (e.g. do not have to stand, sit, kneel or squat for long periods)	☐	☐	☐
Workers can perform tasks in a comfortable, upright, forward facing position (not bent or twisted)	☐	☐	☐
Workers are trained in solving manual handling problems and correct manual handling techniques	☐	☐	☐
Mechanical aids (e.g. jigs, slings, dollies, chains) are used to lift or move heavy or awkward items	☐	☐	☐
Tool boxes and benches are mobile for ease of use	☐	☐	☐
Safe, task-suitable hand tools are provided	☐	☐	☐
Hand tool weight/comfort to hold and use is considered	☐	☐	☐
Hand tools are replaced by power tools	☐	☐	☐
Workers are consulted about new tools/equipment prior to purchase	☐	☐	☐
Job rotation is used for repetitive tasks	☐	☐	☐
Jobs are redesigned/working loads are modified	☐	☐	☐
Equipment is regularly inspected, tested and tagged (where required)	☐	☐	☐
Equipment is regularly maintained	☐	☐	☐
Workers are protected against vibration when using powered equipment for long periods (e.g. grinders)	☐	☐	☐

Wheel and tyre fitting	Always	Sometimes	Never
Vehicle hoists, wheel balancers, tyre changers and mechanical aids are used	☐	☐	☐
Tyres and wheels are rolled, not carried, over distance	☐	☐	☐
Tyres are deflated to minimise potential explosion hazard	☐	☐	☐
Chocks are used when raising or lowering vehicles on a jack	☐	☐	☐
Wheels are firmly placed on mountings before nuts are done up	☐	☐	☐
Tyres and valves are visually inspected for damage and wear	☐	☐	☐
Tyre inflation cages are available and used	☐	☐	☐
Manufacturer's specifications for tyres and rims are followed	☐	☐	☐
Restraining devices are used when inflating tyres on split rim assemblies	☐	☐	☐
Workers are trained in safe work practices for tyre assembly/fitting	☐	☐	☐
Regular training sessions are conducted in correct manual handling practices	☐	☐	☐
Appropriate PPE is provided and used (e.g. eye and ear protection, high-visibility clothing)	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐

Working inside vehicle cabins	Always	Sometimes	Never
Adequate lighting is provided, especially lead lights	☐	☐	☐
Risks from awkward and sustained working positions are identified and controlled (e.g. footwell spacers/fillers)	☐	☐	☐
Powered tools are provided, where appropriate	☐	☐	☐
Braces (for undoing dashes), vacuum lifters (for windscreens) and magnetic clamps etc are in use	☐	☐	☐

Working under bonnets	Always	Sometimes	Never
Adequate lighting is provided, especially lead lights	☐	☐	☐
Risks from awkward and sustained working positions are identified and controlled (e.g. remove bonnet)	☐	☐	☐
Powered tools are provided, where appropriate	☐	☐	☐
Body support harnesses are used	☐	☐	☐
Protective pads are used for upper torso support	☐	☐	☐

Working under vehicles	Always	Sometimes	Never
Adequate lighting is provided, especially lead lights	☐	☐	☐
Risks from awkward and sustained working positions are identified and controlled (e.g. creepers, tiltable chairs)	☐	☐	☐
Powered tools are provided, where appropriate	☐	☐	☐
Hoists/platforms/in-ground pits are used to provide better access	☐	☐	☐
Dollies/slings are used to reduce the need to hold/support parts	☐	☐	☐
Operating instructions are displayed (where required)	☐	☐	☐
Appropriate PPE is provided and used (e.g. eye and hand protection)	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐

Machinery and equipment

Machinery and equipment

People who service or repair vehicles, machinery and equipment could be at risk when:

- working at height
- using rigging, jacks etc. to lift machinery and equipment
- using power tools, welders and extension leads that may be damaged or wet
- exposed to poor isolation of energy sources or stored energy, such as spring-loaded or counter-balance mechanisms, compressed air or fluids, or parts held in position by hydraulics or pneumatic (air) rams
- placing hands close to mechanisms and being injured if caught or trapped by moving parts
- moving heavy parts or repairing failed parts (e.g. electric motors or gear box assemblies)
- disabling or removing normal safety systems to access mechanisms
- working in low light or bright directional light
- entering confined spaces
- working alone or in isolation
- exposed to excessive or sustained noise levels.

Spray booths, sanding and grinding equipment, airless spray equipment and compressed air all create potential hazards.

Chemical or thermal burns can result in significant body tissue damage.

All machinery and equipment should be regularly serviced and maintained according to the manufacturer's instructions. All equipment operators must be instructed, trained and supervised in its safe use.

Machinery and equipment should only be used for its intended purpose.

Moving parts of machinery can cause bruising, crushing, fractures, lacerations, dislocations, amputations and even fatalities.

Where there is a risk of injury from moving parts or processes, guarding in the form of a physical or other barrier must be used as a first line of defence. There must also be isolation or disengaging procedures in place when cleaning or maintenance is performed.

Further information

Code of Practice: Managing the Risks of Plant in the Workplace

safework.sa.gov.au/cop

Product safety recall

Subscribe to the recalls section of the Product Safety Australia website **productsafety.gov.au** for daily recall notifications. These can then be delegated to one or two responsible workers who are tasked with checking for and removing any recalled products from use.

Angle grinders

Hazards/risks

Angle grinders can be dangerous power tools. Kickbacks can result in severe cuts. Discs can shatter or disintegrate, especially when thin cutting discs are used. The fragments produced may cause eye injuries or become lodged in other parts of the operator's body.

Electrical cords can become damaged in the workshop environment, creating the risk of electric shock (read about electrical safety on page 24).

Sparks and flying particles can also introduce an ignition source where hazardous flammable chemicals and gases are used in close proximity.

Safety solutions

Consider whether an angle grinder is actually the best tool to perform the task.

Ensure all grinders have fitted guards and that these are not removed.

Ensure all workers maintain a safe distance from grinding work in progress, and use welding screens to stop others being hit by flying particles and sparks.

Conduct grinding and cutting work well away from hazardous chemicals, gases and spray booths.

Check that electrical cords are undamaged and in a safe working condition.

Have grinders inspected and tested by a competent person every 3 months (as a best practice recommendation).

Provide operators with training and instruction on safe work procedures for angle grinders.

Provide operators with personal protective equipment (PPE) that is appropriate for the nature of the work and of a suitable size and fit (e.g. goggles, face shields), and ensure that it is maintained in good condition.

Further information

SafeWork SA *Safety Alert – Angle Grinders*
safework.sa.gov.au

Compressors and compressed gases

Hazards/risks

Compressed and liquefied gases are in vessels under pressure, and are used in workshops as fuel, as a source of oxygen or as a shielding gas in certain types of welding.

Risk factors associated with their use include the following:

Fire or explosion: Gas leakage is one of the greatest hazards when storing, handling and using cylinders. An ignition source, such as a spark from an angle grinder being used nearby, could cause a fire or explosion.

Asphyxiation: Dangerously low levels of oxygen can cause fatigue and, in extreme cases death. Working in an area with inadequate ventilation can present an asphyxiation hazard. For example, gases that are heavier than air can accumulate in pits, while those lighter than air can accumulate in roof spaces and lofts/mezzanines. Read more about working in confined spaces on page 52.

Uncontrolled release of pressure:
A sudden release of compressed air may cause hearing damage or even rupture an ear drum. Compressed air can also deeply penetrate the skin, resulting in an air bubble in the bloodstream (an embolism). Even a small quantity of air or other gas in the bloodstream can be fatal.

Safety solutions

Ensure the Safety Data Sheet (SDS) for any gas in use is available.

Store cylinders upright and restrained to prevent them falling or rolling.

Regularly maintain regulators and valves, and keep them away from contaminants (e.g. oils, greases).

Carry out pre-operational inspections, in particular checking for leaks.

Carry out inspections for rusting/pitting on compressors at least every two years, and internal inspections at least every 4 years.

Train workers in the safe storage, handling and use of compressed air and all air-operated tools and equipment. Compressed air must never be deliberately misused.

Install compressors in an area that minimises noise.

Register air tanks and receivers (if required).

Drain air tanks daily to prevent rusting and pitting.

Ensure PVC air lines (if used) are rated for compressed gas.

Further information

Code of Practice: Managing Risks of Hazardous Chemicals in the Workplace

safework.sa.gov.au/cop

Electrical

Hazards/risks

Electrical equipment that is not properly earthed or maintained can lead to electric shock, serious burns or even death.

Safety solutions

Substitute electrical with compressed air-operated equipment (no need for electrical testing).

Substitute electrical with extra-low voltage equipment (e.g. 24 volt hand-held angle grinder).

Ensure all AC power circuits are protected with appropriately rated fuses or circuit breakers.

Arrange electrical leads so they are not easily damaged, and do not run across floors and doorways or over sharp edges.

Only use leads and tools designed for wet or damp conditions when they must be used in those circumstances.

Ensure powerboards used for portable equipment are RCD protected.

If any current protective device (RCD or circuit breaker) is triggered, do not re-energise the system until the reason has been identified by a competent person.

Regularly conduct visual inspections and testing of electrical equipment, including RCDs (the nature and frequency will vary depending on the electrical risks).

Maintain all electrical equipment in accordance with the WHS Regulations and keep log book records of all inspections, servicing and maintenance.

Earth containers accordingly when solvents are being decanted, to control static electricity.

Disconnect, or isolate, and label accordingly any equipment identified as unsafe, and ensure it is not reconnected until it has been repaired and tested.

Further information

Code of Practice: Managing Electrical Risks in the Workplace

safework.sa.gov.au/cop

SafeWork SA *Safety Alert – Isolation procedures*

safework.sa.gov.au

Australian Standard *AS/NZS 3760: In-service safety inspection and testing of electrical equipment*

Guarding

Hazards/risks

Workers who operate or maintain unguarded or inadequately guarded machinery and equipment are at risk of minor abrasions, burns or cuts, and more severe injuries such as lacerations, crushing, fractures or even amputation. Common hazards arise from nip points, rotating parts, noise, sparks and flying debris.

When the operation of any machine part, process or function, or unintended contact with it, may cause injury to workers or others in the immediate work area, it must be guarded as a first line of defence.

Guarding in the form of a physical or other type of barrier can:

- prevent contact with moving parts that do not require regular adjustment
- control access to dangerous moving parts, machines and equipment
- screen harmful emissions (e.g. radiation)
- minimise noise (use of sound-absorbing materials)
- prevent ejected parts or off-cuts from striking people.

Safety solutions

If guarding is used, ensure that it:

- is a permanently fixed barrier, if access to the area of plant requiring guarding is not necessary during operation, maintenance or cleaning, or
- is an interlocked physical barrier, if access to the area requiring guarding is necessary during operation, maintenance or cleaning, or
- can only be altered or removed with a tool, if it is not reasonably practicable to use either a permanently fixed or interlocked physical barrier, or
- includes a presence-sensing safeguarding system, if it is not reasonably practicable to use either a permanently fixed, interlocked or fixed-in-position physical barrier.

Further information

Code of Practice: Managing Risks of Plant in the Workplace for more information on types of barriers, environmental factors, colour coding etc.

safework.sa.gov.au/cop

Various forms of guarding and interlocking are also described in Australian Standard *AS4024.1: Safety of machinery (parts 1601 and 1602)*.

Guarding must:

- be of solid construction, securely mounted and resistant to impact or shock
- prevent by-passing or disabling of the guard, and disable plant operation if it is removed
- not create a risk in itself (e.g. it must not obstruct operator visibility, weaken the plant, cause operator discomfort or create new hazards such as pinch points or sharp edges)
- be properly maintained, and enable ease of servicing, maintenance and repair
- control any risk from broken/ejected parts and workpieces.

Noise

Hazards/risks

Unwanted or damaging sounds may cause noise-induced hearing loss or tinnitus (ringing in the ears). It may also cause other health effects such as stress, hypersensitivity to noise, and increased blood pressure and heart rate.

It can also interfere with communication at work, which can lead to incidents.

The harmful effects of noise may be cumulative (e.g. going to nightclubs may result in young people having some early damage to their hearing before joining the workforce).

Specialist skills or equipment are not needed to make a preliminary assessment to identify sources of hazardous noise in your workplace. However, it should be done in consultation with those who understand the work processes, such as affected workers.

Conduct a walk-through inspection of your workplace to help determine:

- sources of excessive, distracting or disruptive noise (e.g. is it difficult to hear a normal voice within one metre of a noise source)
- workers likely to be exposed to excessive noise
- work activities that are noisy and may pose a risk to hearing
- ways of reducing noise levels.

If you are unsure about the level of exposure or how to minimise the risks effectively, you should take the next step to assess hearing loss risks.

Safety solutions

Eliminate the noise source.

Keep noise levels below the exposure standard of 85dB(A) in an 8-hour day so that critical situations can still be communicated despite noise. Refer to the Code of Practice for information on work shifts exceeding 8 hours.

Substitute noisy machinery with quieter models – or 'buy quiet' when purchasing new or replacement equipment, which is a cost-effective way to control noise at the source.

Introduce engineering controls to treat noise at its source or in its transmission path (e.g. use sound dampeners or silencers, noise barriers/partitions/screens and isolation).

Introduce administrative controls to reduce the number of workers exposed to noise (e.g. training and education, job rotation, job redesign or designing rosters).

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. earmuffs, ear plugs)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

If workers are frequently required to wear PPE to reduce the risk of hearing loss from noise exceeding the exposure standard of 85dB(A), implement an audiometric testing regime. Keep testing records.

Further information

Code of Practice: Managing Noise and Preventing Hearing Loss at Work

safework.sa.gov.au/cop

Vehicle hoists

Hazards/risks

Failure of lifting equipment can cause crush injuries or fatalities.

Moving vehicles on and off hoists also presents potential hazards.

Safety solutions

Train operators in the safe use of hoists and ensure they do not work under a suspended load without checking that safety features are engaged and operating correctly.

Prominently display equipment operating and maintenance instructions, as well as the safe working load.

Ensure hoists have a valid design registration number issued by a work health and safety regulator in Australia.

To avoid worker entrapment, ensure that moving parts of the hoist or its load are located at least 600mm away from any other fixed structure or equipment that moves.

Ensure that operator controls are undamaged, clearly marked and positioned for effective, safe use.

Check that the dropper bar (safety prop) is fitted to any in-ground, hydraulic, ram-type hoist.

Conduct pre-operational inspections daily (e.g. look for leaks in hydraulic and pneumatic components).

Inspect and maintain the hoist at least every 3 months.

Arrange for a comprehensive annual inspection to be carried out by an independent, qualified, competent person.

Undertake hoist inspections in accordance with the manufacturer's instructions, and with reference to Australian Standards:

- *AS/NZS 2550.9: Cranes – Safe use. Part 9: Vehicle hoists*
- *AS/NZS 1418.9: Cranes (including hoists and winches). Part 9: Vehicle hoists.*

Ensure electrical hoists and wiring are tested with reference to Australian Standard *AS/NZS 3000: Australian Wiring Rules*.

Record all inspections, servicing and maintenance in a log book which is available for all users, maintenance or inspection personnel.

Vehicle jacks

Hazards/risks

These portable devices require experience in their placement before use to minimise risk to the operator.

Associated risks include the sudden fall of vehicles due to overbalancing, incorrect use of jacking points, poor maintenance or leaking hydraulic fluid, and use of jacks on surfaces that are not level or firm.

Safety solutions

Train operators in the correct and safe use of the equipment, including ensuring that:

- jacks are based on a firm, level and secure surface (preferably concrete)
- vehicle stands are used when a vehicle is raised and wheels are chocked
- nobody remains in a vehicle that is being jacked
- nobody places any portion of their body under a vehicle supported by a jack.

Prominently display equipment operating and maintenance instructions, as well as the safe working load.

Conduct daily pre-operational equipment inspections.

Inspect and maintain the jack at least every 3 months, in accordance with the manufacturer's instructions, to ensure it can be manoeuvred effectively.

Record all inspections, servicing and maintenance in a log book which is available for all users, maintenance or inspection personnel.

Vehicle ramps and stands

Hazards/risks

Common risks arise when ramps and stands are poorly placed, unsuitable for the work involved (e.g. load capacity), used on unstable/uneven surfaces, or poorly stored and maintained (creating weaknesses).

Safety solutions

Conduct pre-operational inspections daily.

Ensure axle stands are based on a solid, level and secure surface (preferably concrete).

Secure vehicles on ramps to prevent movement (e.g. use of handbrake, wheel chocks etc).

Do not adjust stand heights when they are bearing weight.

Mark ramps and stands with rated safe working load.

Only use ramps and stands in pairs.

Slowly drive vehicles onto ramps or stands with guidance from another person outside the vehicle.

Further information

Australian Standards:

- *AS/NZS 2640: Portable ramps for vehicles*
- *AS/NZS 2538: Vehicle support stands*

Welding

Hazards/risks

Welding is a potentially hazardous activity and precautions are required to avoid electrocution, fire and explosion, burns, electric shock, vision damage, inhalation of poisonous gases and fumes, and exposure to intense ultraviolet radiation.

Radiation hazards emitted from electric arc and laser welding have the potential to cause eye disorders and skin burns such as 'arc eye' or 'welder's flash'.

Radiation from laser welding is less obvious than from electric welding arcs, but both are serious hazards. Workers directly involved in welding processes are at the greatest risk, however other workers could also be exposed to harmful radiation.

Safety solutions

Only allow competent (trained and experienced) workers to be involved in welding. Trainees and apprentices should only be permitted to weld if they are being trained and supervised by a competent person.

Install non-flammable screens and partitions.

Use physical barriers and warning signs – unless safeguards are used, entry into the welding area should not be permitted.

Store cylinders upright and restrained to prevent them falling or rolling.

Light up gas cylinders using a flint or piezo electric lighter, not matches or cigarette lighters.

Keep all fittings and hoses away from contaminants such as oil and grease.

Never weld or heat empty containers, or weld in confined or poorly ventilated areas.

Provide personal protective equipment (PPE), such as filter shades for goggles, face shields to protect the eyes from radiation, gloves and other protective clothing to cover exposed skin, that is:

- suitable for the nature of the work and the hazard (e.g. earmuffs, ear plugs)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Further information

Code of Practice: Welding Processes
safework.sa.gov.au/cop

Quick safety scans – machinery and equipment

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Angle grinders	Always	Sometimes	Never
Workers conduct pre-operational checks	☐	☐	☐
Handgrips have an automatic cut-off or dead-man switch	☐	☐	☐
Grinders have adjustable handles to suit both left and right-handed operators	☐	☐	☐
Guards are kept in place (covering half the disc and positioned between the disc and the operator)	☐	☐	☐
Correct types of disc are used for tasks performed	☐	☐	☐
Operators are trained/instructed in safe work procedures	☐	☐	☐
Grinders are not used close to flammable materials	☐	☐	☐
Plugs are removed from power points before changing discs	☐	☐	☐
Regular short breaks are taken to prevent muscle fatigue when grinding for extended periods	☐	☐	☐
Grinders are regularly checked for electrical safety	☐	☐	☐
Other workers are protected by a welding screen or stand well back when someone is grinding	☐	☐	☐
Safe work procedures are in place	☐	☐	☐
Appropriate PPE is provided and used	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐

Compressors and compressed gases	Always	Sometimes	Never
Safety Data Sheets (SDS) are available for relevant gases	☐	☐	☐
Cylinders are stored upright and restrained	☐	☐	☐
Regulators and valves are maintained	☐	☐	☐
Safe work procedures are in place	☐	☐	☐
Air receiver/air tank is registered (if required)	☐	☐	☐
Workers are trained in equipment use	☐	☐	☐
Workers conduct pre-operational checks	☐	☐	☐
A chemical register is available and is maintained	☐	☐	☐

Electrical	Always	Sometimes	Never
Outlets, plugs, sockets, leads and power points are in good condition	☐	☐	☐
Temporary extension leads, multiple double adaptors and powerboards in series are not used	☐	☐	☐
Power circuits are protected with appropriately rated fuses or circuit breakers	☐	☐	☐
Powerboards used for portable electrical equipment are RCD protected	☐	☐	☐
Electrical equipment is never used in 'wet' areas	☐	☐	☐
Unsafe equipment is disconnected/isolated/labelled	☐	☐	☐
Testing and tagging is current for all fixed and portable electrical equipment	☐	☐	☐
Main and isolation switches are clearly labelled/accessible	☐	☐	☐
Electrical leads, power boards and equipment are kept away from potential sources of damage (e.g. water, heat, being run over)	☐	☐	☐
Compressed air or extra-low voltage equipment is substituted for electrically operated	☐	☐	☐
Electrical equipment is maintained in good condition	☐	☐	☐
Maintenance records are kept and available	☐	☐	☐

Guarding	Always	Sometimes	Never
Guards are designed and fitted to equipment, where required, according to relevant Australian Standards and the manufacturer's specifications	☐	☐	☐
Guards are altered or removed with a tool (if permanent fixed or interlocked physical barriers cannot be used)	☐	☐	☐
Guards remain in place and plant is disabled if they are removed (deliberately or unintended)	☐	☐	☐
Guarding is maintained	☐	☐	☐
Guarding enables easy servicing, maintenance or repair	☐	☐	☐
Machines are turned off and disconnected when servicing, maintenance and repairs are carried out	☐	☐	☐
Pulley wheels on air compressors are guarded	☐	☐	☐
Bench grinders/brushers/buffers are guarded (spark shields, side/upper tongue guards, emergency stops, tool rests)	☐	☐	☐
Pedestal drills are guarded (veebelt access restricted, emergency stops, rotating parts guarded)	☐	☐	☐
Lathes and milling machines are guarded (rotating parts guarded, DC braking system, lead feed screws, emergency stops), where practicable	☐	☐	☐
Workers are fully instructed about safe procedures for guarding, isolation devices, locks, danger tags and emergency stops	☐	☐	☐

Noise	Always	Sometimes	Never
Noisy tasks are identified, eliminated or minimised	☐	☐	☐
Noise levels are kept below the exposure standard of 85dB(A) in an 8-hour day and below the peak level of 140d(C)	☐	☐	☐
Noise control guarding, screens or partitions are used	☐	☐	☐
Advisory/warning signage is in place (e.g. *Hearing Protection Must Be Worn*)	☐	☐	☐
Correct hearing protection (PPE) is provided and used	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐
Critical situations can be communicated despite noise	☐	☐	☐
Audiometric testing is carried out, if needed	☐	☐	☐
Audiometric testing records are kept	☐	☐	☐

Vehicle hoists	Always	Sometimes	Never
Pre-operational checks are made daily	☐	☐	☐
Inspections and maintenance are carried out, at least every 3 months	☐	☐	☐
A comprehensive annual inspection is conducted	☐	☐	☐
Inspection, servicing and maintenance records are kept in a log book	☐	☐	☐
Workers are trained in correct and safe use of hoists	☐	☐	☐
There is a minimum 600mm clearance between hoists and other equipment or fixed structures	☐	☐	☐
Safe working load is displayed	☐	☐	☐
Operating and maintenance instructions are displayed	☐	☐	☐

Vehicle jacks	Always	Sometimes	Never
Pre-operational checks are made daily	☐	☐	☐
Inspections and maintenance are carried out, at least every 3 months	☐	☐	☐
A comprehensive annual inspection is conducted	☐	☐	☐
Inspection, servicing and maintenance records are kept	☐	☐	☐
Workers are trained in correct and safe use	☐	☐	☐
Safe working load is displayed	☐	☐	☐
Operating and maintenance instructions are displayed	☐	☐	☐

Vehicle ramps and stands	Always	Sometimes	Never
Pre-operational checks are made daily	☐	☐	☐
Routine inspections and maintenance are carried out	☐	☐	☐
A comprehensive annual inspection is conducted	☐	☐	☐
Inspection, servicing and maintenance records are kept	☐	☐	☐
Axle stands are based on solid and secure footings	☐	☐	☐
Vehicles on ramps are secured to prevent movement	☐	☐	☐
Safe working load is displayed	☐	☐	☐
Operating instructions are displayed	☐	☐	☐

Welding	Always	Sometimes	Never
Welding equipment is used according to the manufacturer's recommendations	☐	☐	☐
Non-flammable welding screens/partitions are used	☐	☐	☐
Signs warn that welding is taking place, and entry to the work area is restricted	☐	☐	☐
There is adequate ventilation	☐	☐	☐
PPE is provided and used (e.g. masks, aprons, gauntlets)	☐	☐	☐
Workers are trained in the use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐
Oxy/gas cylinders are secured in trolleys or prevented from falling (e.g. chained)	☐	☐	☐
Flashback arrestors are fitted at the blow pipe and to the oxygen and fuel gas regulators	☐	☐	☐

Slips, trips and falls

Slips, trips and falls

Slips, trips and falls are the second most common cause of workplace injury, after hazardous manual tasks. Some common hazards arise from:

- type and stability of floor or ground surfaces (e.g. uneven or broken concrete, sloping ground)
- slippery floor surfaces (e.g. from water, spilled fluid, oil)
- equipment, boxes and materials blocking walkways
- stairs or steps
- carrying things that obscure the view ahead
- poor lighting
- inadequate or improper footwear
- incorrect use of ladders
- falling or moving objects.

Fall hazards are found where work is carried out both at height (e.g. storage rack stacking) and at ground level where there is a risk of falling into a hole (e.g. service pits).

Further information

Code of Practice: Managing the Risk of Falls at Workplaces

safework.sa.gov.au/cop

Floors, walkways, stairs and landings

Hazards/risks

Uneven, poorly maintained or slippery floor surfaces, obstructed/restricted walkways and poor housekeeping can lead to slips, trips and falls.

Safety solutions

Report and repair any damaged floors and surfaces.

Clearly mark all walkways, ensure they are of adequate width, and implement a clean and clear walkway policy.

Design electrical and air plug-in points to limit cords and hoses across workshops.

Attach mats to floor surfaces.

Restrict access to areas that are potentially hazardous.

Provide ramps, not steps, where floor level height changes.

Provide adequate lighting.

Use warning signs (e.g. wet floors).

Implement a 'good housekeeping' policy (e.g. for rubbish, waste products etc). to keep all work areas clean and clear.

Further information

Australian Standard *AS1657: Fixed platforms, walkways, stairways – Design, construction and installation*

Ladders

Hazards/risks

If ladders are unsafe or used incorrectly, this can result in serious injuries caused by falls from height, ladders slipping and falling objects.

Ladders should only be used if there is no other reasonably practicable means of accessing different levels that is safer and more efficient.

Extension or single ladders should only be used as a means of access to or egress from a work area. They are not a place to work from except for light work of short duration that can be carried out safely.

When working space and movement area are restricted on ladders, awkward and limited working positions can lead to musculoskeletal disorders.

Safety solutions

Select a ladder that is the most suitable for the job and the work environment (e.g. aluminium ladders can easily be damaged if exposed to acids, and only non-conductive, insulated ladders should be used for electrical work or near electrical hazards).

Use ladders rated for industrial use (at least 120kg) as they are designed to carry more load and are of stronger construction than domestic types.

Ensure ladders are fitted with non-slip safety feet.

Store ladders in a dry place to prevent warping or corrosion and check their condition frequently. Have ladders periodically serviced by a competent person (someone who is qualified either through experience and/or training).

Further information

Australian Standards:

- *AS/NZS 1892.1 Portable Ladders: Metal*
- *AS/NZS 1892.2 Portable Ladders: Timber*
- *AS/NZS 1892.3 Portable Ladders: Reinforced plastic*
- *AS/NZS 1892.5 Portable Ladders: Selection, safe use and care*

Instruct workers in these rules of ladder use:

- When setting up or moving a ladder check for overhead obstructions (e.g. electrical cables).
- Place ladders on firm, dry, level ground, engaging all locks and braces.
- Ensure compliance with the manufacturer's load rating.
- Only one person should be on a ladder at any given time.
- When ascending or descending, maintain 3 points of contact at all times – 2 feet and 1 hand, or 2 hands and 1 foot.
- Cimb and descend facing the ladder.
- Never carry anything when climbing or descending.
- Keep centred between the ladder sides.
- Never lean sideways or over-reach.
- Be careful when pulling or moving items from above (e.g. from shelves) as this may cause over-balancing or objects falling on people below.
- Never stand above the ladder tread or rung indicated as the maximum safe working height.
- Only conduct light work from a ladder.
- If a ladder is placed near a doorway, fix the door in the open position or close and lock it. Alternatively, place another person on guard at the foot of the ladder. Warning signs may also be used.
- Only use step or trestle ladders in the fully open position. A rigid metal spreader or locking device must be used and the load carried by the front stiles.

Service pits

Hazards/risks

The hazards of working in or around vehicle service pits can include falls into an unguarded or uncovered pit, asphyxiation, explosion or fire.

Some fuel vapours from vehicles and gaseous by-products of combustion have a tendency to settle in low areas, such as vehicle service pits.

Service pits have poor ventilation which can allow hazardous atmospheres to develop.

Risk control measures should be based on fall prevention, ventilation and fire safety.

Read more about working in confined spaces on page 52.

Read more about fire and explosion on page 54.

Safety solutions

Provide multi-purpose hoists and elevated ramps for overhead work, rather than the conventional service pit.

Paint the pit interior white and outline the edges for at least 600mm in a conspicuous colour (e.g. safety yellow).

Install sectionalised guard railing designed to fit into prepared floor sockets, or suspend chain barriers from removable steel uprights to prevent people walking into open pits.

Cover pits when not in use with either traditional hardwood covers, or the better solution of heavy interlocked steel plates designed to run through guide rails (much like a roller shutter).

Use ventilation systems with vents in the side walls of the pit to vent vapours and fumes.

Ensure all portable or permanent lighting and/or electrical equipment within the hazardous zone of the pit is intrinsically safe.

Never drain a petrol tank or service LPG-powered vehicles over or next to a service pit.

Avoid work involving welding or oxy cutting inside or adjacent to service pits.

Storage and racking

Hazards/risks

Risks arise from the use of high force and/or awkward postures from the manual lifting, lowering and handling of materials, stock and equipment.

Stacking that is unstable, unbalanced or too high creates an issue, as do falls from height (e.g. from ladders and mezzanine storage areas). Exceeding safe working load ratings and damaged supports are also risks.

When using mechanical lifting and positioning aids (e.g. forklifts) to lift, stack or transfer stock, other hazards related to traffic management and equipment use are introduced.

This includes the use of attachments not authorised for use on forklifts. Read more about forklift safety on page 44.

Safety solutions

Ensure racking is suitable for the product type and that load ratings are known and not exceeded.

Ensure tyres and parts are not stored above shoulder height, or at too low a level.

Keep minimum stock on-site, based on usage rates, to avoid over-stacking or crowding of storage areas.

Minimise double handling by creating storage areas as close as possible to where work is done.

Strictly follow limits on layered/pyramid stacking.

Roll, rather than lift by hand, car and truck tyres and wheels, or use mechanical aids.

Use mobile access platforms to access stock stored above shoulder height.

Ensure mezzanine storage areas have guard rails and purpose-built stair access with a hand rail.

Use appropriate, industrial use, A-frame platform ladders, following the rules on page 37.

Use mechanical aids to lift items up to racking above shoulder height or to mezzanine storage.

Store tyres and parts in ‘stillages’ (e.g. crates, bins, pallets, racks) that can be safely stacked and/or moved with a forklift. Implement a strict traffic management plan if forklifts are used.

Do not allow workers to stand on forklift arms as part of loading and unloading.

A *Licence to Perform High Risk Work* is required for forklift operation. While forklifts offer a practical materials handling solution, they continue to be associated with workplace deaths and injuries.

Further information

SafeWork SA *High Risk Work – Guide to Forklift Safety*

safework.sa.gov.au

Quick safety scans – slips, trips and falls

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

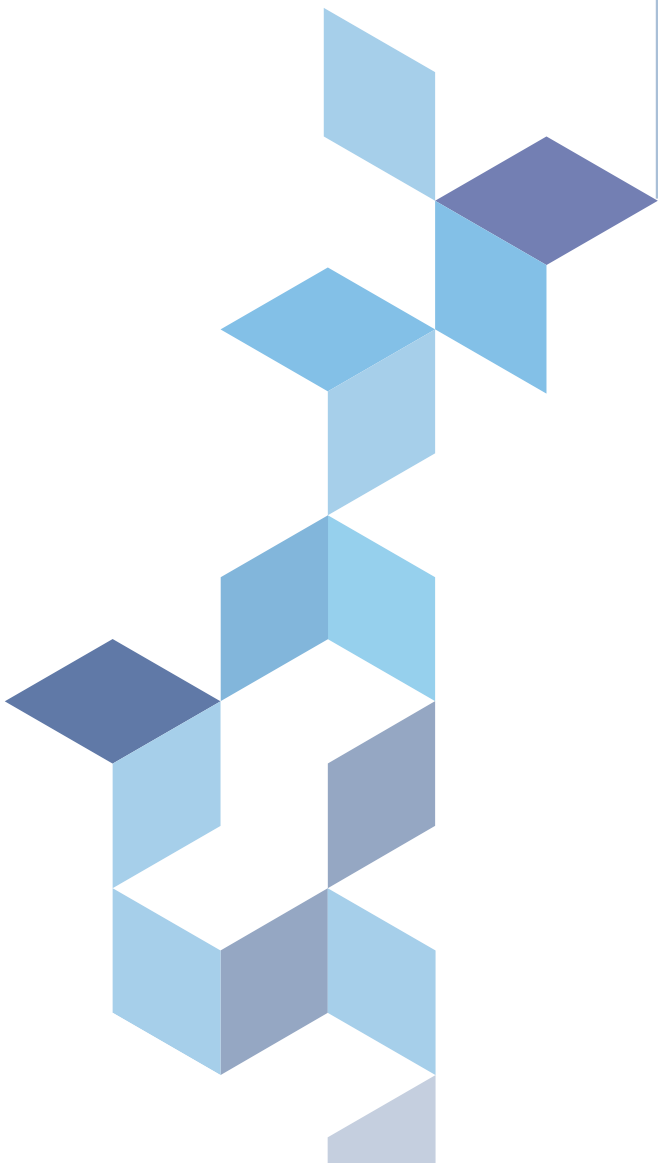
Floors, walkways, stairs and landings	Always	Sometimes	Never
All areas are free of slip and trip hazards (e.g. air lines, hoses, electrical cables and leads, tools, spills, boxes, rubbish, uneven surfaces)	☐	☐	☐
Fluid spills are cleaned up immediately	☐	☐	☐
Walkways, ramps and steps are wide enough, clearly marked and free of obstructions	☐	☐	☐
External areas (e.g. carparks, pathways) are free of slip and trip hazards (e.g. potholes, uneven paving)	☐	☐	☐
Drains are covered	☐	☐	☐
Sumps (waste oil) are emptied regularly, and there is no overflow	☐	☐	☐
Floor surfaces and mats are in good condition to prevent slipping when wet or contaminated	☐	☐	☐
Stairs and hand rails (where required) are in good condition (e.g. anti-slip treads)	☐	☐	☐
Stairway landings are clear	☐	☐	☐
Advisory/warning signage is in place (e.g. *Slippery When Wet/Beware of Opening Door)*	☐	☐	☐
All areas are well lit	☐	☐	☐
Workers are provided with/instructed to wear non-slip footwear	☐	☐	☐

Ladders	Always	Sometimes	Never
Ladders used are stable and in good condition, and only used for their designed purpose	☐	☐	☐
Non-conductive, insulated ladders are used for electrical work or near electrical hazards	☐	☐	☐
Ladders are rated for industrial use (at least 120 kg)	☐	☐	☐
Manufacturer's load rating is complied with	☐	☐	☐
Ladders meet Australian Standards	☐	☐	☐
Workers are instructed in rules for ladder use	☐	☐	☐
All ladders are regularly checked and periodically serviced	☐	☐	☐
Step/trestle ladders are only used in fully open position	☐	☐	☐
Non-slip rubber feet are fitted	☐	☐	☐
Work platforms are used for access to work at height	☐	☐	☐

Service pits	Always	Sometimes	Never
Multi-purpose hoists/elevated ramps are used (so work is done overhead, not in a service pit)	☐	☐	☐
Pit interiors are painted white and the edges outlined in a conspicuous colour	☐	☐	☐
Pits guarded/chained as fall protection	☐	☐	☐
Pits are covered when not in use	☐	☐	☐
Adequate ventilation is provided	☐	☐	☐
Lighting is safe	☐	☐	☐
Explosion/fire risks are assessed	☐	☐	☐
Work involving welding and oxy cutting is avoided inside or adjacent to pits	☐	☐	☐

Storage and racking	Always	Sometimes	Never
Materials are stored to minimise lifting and enable good manual handling practices	☐	☐	☐
Parts are stored in appropriate areas with racking, shelves etc	☐	☐	☐
Limits are followed on layered/pyramid stacking	☐	☐	☐
Tools and equipment are stored appropriately, and returned to storage when not in use	☐	☐	☐
Shelving is in good condition, stable and securely fixed	☐	☐	☐
Shelving is not overloaded or overstacked (as per certified load ratings)	☐	☐	☐
Industrial use, A-frame platform ladders are used	☐	☐	☐
Mobile access platforms are used to access stock above shoulder height	☐	☐	☐
All materials are stored to prevent falling, and are free from projections and sharp edges	☐	☐	☐
Overhead/mezzanine storage has guard rails/kickboards and purpose-built stair access with hand rail	☐	☐	☐
Overhead/mezzanine storage is designed for load-bearing purposes	☐	☐	☐
Mechanical aids are used to lift stock to mezzanine levels or above-shoulder-height storage	☐	☐	☐
Tyres and wheels are rolled, or mechanical aids are used	☐	☐	☐
Tyres/parts are stored in stillages	☐	☐	☐

Traffic management



Traffic management

Where there are cars, trucks or forklifts at your workplace there is a risk that they will collide with people. Those who work with or near vehicles are most at risk, as are customers and visitors.

Workers unfamiliar with the operation of a particular vehicle or a customer's driving ability can add to the risk from moving vehicles.

Traffic areas in workplaces must therefore be controlled.

A traffic management plan is a set of rules for managing the safest and most efficient movement of traffic at your workplace. It should contain practical, workable controls for all vehicles, including forklifts.

The plan should take into account the size of your workplace, the kinds of vehicles likely to be present, and how often the interaction between people and vehicles is likely to occur.

Different controls are required if personnel are working at another location or workplace with which they are not familiar (e.g. making a service call or carrying out roadside breakdown maintenance).

Further information

Safe Work Australia's *General guide for workplace traffic management*

safeworkaustralia.gov.au

Forklifts

Hazards/risks

Forklifts offer a practical materials handling solution, however they continue to be associated with workplace deaths and injuries. While they are compact and manoeuvrable, they can become unstable when carrying loads.

Even at low speeds, forklifts can cause serious injuries. It's not just the operator who may be injured: pedestrians/other workers/visitors can also be struck by a forklift or its load.

The best way to reduce the risk of forklift-related injuries is to separate pedestrians and forklifts. This should be the most important aim of your traffic management plan.

Everyone affected by the plan must understand and follow it.

Safety solutions

Develop a traffic management plan in consultation with forklift operators and other workers.

Clearly mark forklift 'roadways' that are separated from pedestrian walkways (e.g. use exclusion zones and impact barriers).

Set speed limits (close to walking pace) and ensure they are followed.

Ensure operators travel in a manner that does not result in reduced visibility due to the load placement.

Designate a safety zone for the delivery driver – they should be seen by the forklift operator at all times when their vehicle is being loaded or unloaded.

Introduce clear and effective communication systems between the forklift operator and the driver (e.g. hand signals or two-way radios).

If in the same working zone, operators and pedestrians should wear high-visibility vests.

Use flashing lights, reverse beepers and warning sounds/horns.

All forklift operators must have a current *Licence to Perform High Risk Work.*

Remove keys when forklifts are not in use.

Ensure the weight carrying capacity is clearly marked and followed.

Conduct pre-start checks.

Regularly service and maintain forklifts, and keep these records.

Ensure correctly fitted seat belts are worn by operators.

Fit fall prevention cages.

Forklift tines are not used for any unintended purpose (e.g. workers do not stand or travel on them).

Forklift tines are lowered when not in use.

Use only approved forklift attachments.

Further information

SafeWork SA's *High Risk Work – Guide to Forklift Safety*

safework.sa.gov.au

Movement of vehicles

Hazards/risks

Moving vehicles are a significant hazard to workers and pedestrians, and are difficult to avoid in automotive workshops.

Workers may not be competent in the operation of or familiar with the controls of all the different vehicles they are asked to drive or move around the workplace.

Driving onto or off hoists can also present risks.

Safety solutions

Designate pedestrian exclusion zones and walkways.

Fix mirrors at blind corners and other areas to aid visibility.

Use a person to direct reversing vehicles – this person should be in visual contact with the driver at all times and wear high-visibility clothing.

Keep non-essential workers away from reversing areas.

Ensure reversing areas are well lit and clearly marked with signs or line markings.

Ensure workers have appropriate drivers' licences (full or provisional).

Train workers in different vehicle controls and operation, and in driving on/off hoists.

Clearly mark exclusion zones with physical barriers (e.g. chains or bollards), signs, reflective paint or witches' hats.

Designate a safety zone for the delivery driver – they should be seen by the forklift operator at all times when their vehicle is being loaded or unloaded.

Introduce clear and effective communication systems between the forklift operator and the driver (e.g. hand signals or two-way radios).

Provide ways to warn pedestrians and vehicle drivers that loading/unloading is in progress (e.g. signage, cones, lights, alarms and horns).

Roadside maintenance

Hazards/risks

Hazards when working on a roadside include high-speed traffic, poor visibility, weather and ground conditions. Workers could be struck by a passing vehicle or crushed by the vehicle moving off the jacks.

Other risks related to isolation and communication arise if workers are required to work off-site or provide roadside assistance.

Safety solutions

Ensure workers are comprehensively trained (and regularly retrained) in traffic control procedures and dynamic risk assessments when undertaking roadside maintenance.

The following factors need to be considered:

- safety of the work area (e.g. lighting, visibility, hazards, ground stability)
- signs and lights from/on/around/adjacent to the disabled vehicle and assistance vehicle to warn approaching drivers (e.g. high-visibility triangles/cones, flashing lights)
- provision of high-visibility, retro-reflective clothing to capture vehicle headlights at dusk/night
- vehicle payload stability
- availability of lifting or manual handling aids (e.g. wheel dolly, brake drum lifter)
- two-way communication with workshop supervisor or another person
- is police traffic control required to make the area safe?
- towing the vehicle to a safe work area before repairs are attempted.

Quick safety scans – traffic management

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Forklifts	Always	Sometimes	Never
A traffic management plan is followed	☐	☐	☐
Forklift 'roadways' are clearly defined and separated from pedestrian walkways	☐	☐	☐
Exclusion zones are clearly marked with signs and/or barriers	☐	☐	☐
There is a designated safety zone for delivery drivers when vehicles are being loaded or unloaded	☐	☐	☐
Clear and effective communication systems are in place between forklift operators and drivers	☐	☐	☐
There is a system for warning pedestrians and drivers that loading/unloading is in progress (e.g. signage, cones, lights, alarms, horns)	☐	☐	☐
Speed limit (close to walking pace) is followed by operators	☐	☐	☐
Pre-start checks are completed	☐	☐	☐
Weight carrying capacity is clearly marked and followed	☐	☐	☐
Reverse beeper, flashing light and warning sound are working	☐	☐	☐
Keys are removed when forklifts are not in use	☐	☐	☐
Fall protection cages are fitted	☐	☐	☐
Only approved forklift attachments are used	☐	☐	☐
Forklift tines are not used for any unintended purpose	☐	☐	☐
Forklift tines are lowered when not in use	☐	☐	☐
Forklifts are regularly serviced	☐	☐	☐
Maintenance and service records are kept	☐	☐	☐
Operators wear correctly fitted seat belts	☐	☐	☐
Operators and pedestrians wear high-visibility vests	☐	☐	☐
Operators have a current *Licence to Perform High Risk Work*	☐	☐	☐

Movement of vehicles	Always	Sometimes	Never
Designated pedestrian exclusion zones and walkways are identified and in operation	☐	☐	☐
Mirrors are fitted to blind corners	☐	☐	☐
Another person (wearing high-visibility clothing and in visual contact with the driver) assists with directing reversing vehicles	☐	☐	☐
Situations where reversing is required are minimised (e.g. drive through instead)	☐	☐	☐
Non-essential workers and pedestrians are kept away from reversing areas	☐	☐	☐
Reversing areas are well lit and clearly marked	☐	☐	☐

Roadside maintenance	Always	Sometimes	Never
Workers are trained (and regularly retrained) in traffic control procedures and dynamic risk assessments	☐	☐	☐
You have an effective means of two-way communication between the workshop supervisor and isolated/remote workers (e.g. mobile/satellite phone, UHF radio)	☐	☐	☐
Signs/lights (e.g. high-visibility triangles/cones, flashing lights) are provided to warn approaching drivers of disabled vehicles/assistance vehicles	☐	☐	☐
High-visibility, retro-reflective clothing is provided	☐	☐	☐
Lifting or manual handling aids are available (e.g. wheel dolly, brake drum lifter)	☐	☐	☐

Hazardous substances

Hazardous substances

Hazardous substances include paints, solvents, lead, powders, lacquers, paint removers, resins, battery acid, used oils, adhesives, degreasers, surface preparation products, rust converters and removers, and dusts.

Hazardous chemicals are substances and mixtures that can be a health hazard if not handled or stored correctly.

Dusts primarily arise from cutting, grinding and sanding. They have a direct route of exposure to the lung and intestinal tract, and can be an irritant to eyes and the skin. Asbestos dust may also be an issue – read more on page 50.

Vehicle emissions, particularly diesel, are a serious problem in automotive workshops, as are welding and paint fumes.

Health effects

Short-term (acute) health effects from hazardous substances and chemicals may include contact dermatitis, burns to the skin and eyes, vomiting and diarrhoea, irritation to the nose/lungs/throat, headache and occupational asthma.

Long-term (chronic) effects include lung cancer, chronic dermatitis, chronic obstructive airway disease, and damage to the reproductive system, kidneys and liver.

Fire and explosion

The use and storage of flammable and oxidising substances (e.g. gases, solvents, combustible dusts used during powder coating, paints) can create serious fire or explosion hazards when they come into contact with potential ignition sources such as:

- welding or cutting torches
- matches, cigarettes and lighters
- sparks and arcs generated by the discharge of static electricity from poorly earthed equipment and portable electric tools, power points, radios and mobile phones
- burner flames
- frictional sparks
- broken electric light globes that expose the hot filament
- hot surfaces (e.g. operating internal combustion engines, heated wires, glowing metals, overheated bearings)
- products that can be self-heating or result in spontaneous combustion
- catalytic reactions
- chemical reactions (e.g. mixing or decanting hazardous chemicals can generate heat or static electricity).

Exposure standards

You must ensure that workers are not exposed to airborne contaminants above workplace exposure standards.

The list of exposure standards is contained within the publication *Workplace Exposure Standards for Airborne Contaminants* (also available within the Hazardous Substances Information System database). The publication, database and current GHS classification chemicals list can be accessed from **safeworkaustralia.gov.au**.

Health monitoring

Health monitoring by a registered medical practitioner experienced in health monitoring must be conducted where there is a significant risk of workers developing an occupational disease due to exposure to hazardous substances (e.g. Isocyanates) or asbestos.

Further information on health monitoring, including links to Safe Work Australia's guidance material for PCBUs, medical practitioners and workers, can be found on the SafeWork SA website.

safework.sa.gov.au

Asbestos

Hazards/risks

Exposure to dust containing asbestos fibres may exist while repairs are undertaken to brakes, clutches and high-temperature gaskets in older vehicles.

Prohibitions on the supply, sale, storage, use, re-use, installation and transport of asbestos-containing products came into effect across Australia on 31 December 2003. Replacement brake pads, brake shoes and clutch plates that are to be fitted to vehicles in Australia must be asbestos-free.

Despite the prohibitions, the potential for exposure to airborne asbestos fibres in motor vehicle workshops may still remain until asbestos components have been progressively removed from older vehicles.

Safety solutions

Develop and implement a comprehensive asbestos removal management plan for brake, clutch and gasket work. If in doubt, seek advice.

Train workers in safe asbestos removal methods.

Supervise work to ensure that management plan procedures are followed, and regularly review the effectiveness of the plan with workers.

Keep an asbestos register.

Provide disposable personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. gloves, masks, goggles, face shields, respirators)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Further information

For more information on identifying asbestos-containing components and controlling health risks from asbestos exposure, refer to the *Code of Practice: How to Manage and Control Asbestos in the Workplace.*

safework.sa.gov.au/cop

Asbestos may also be present in products such as cement wall cladding, tiles, lino or older roof cladding that are part of your workshop building structure, especially if it was built before 1990.

Find out more at **asbestos.sa.gov.au**.

Batteries

Hazards/risks

Lead acid batteries are capable of delivering an electric charge at a very high rate.

Gases released when batteries are charging – hydrogen (very flammable and easily ignited) and oxygen (supports combustion) – can result in an explosion.

The acid used as an electrolyte in batteries is also very corrosive and can cause injuries if it comes into contact with workers.

Electrolyte that has been spilled can also cause significant damage to property and the environment.

Safety solutions

Check the manufacturer's instructions, including Safety Data Sheets, for electrolyte spill containment, clean-up and disposal details, and appropriate personal protective equipment (PPE).

Inform, instruct and train workers in safe procedures for using, handling, charging, storing or maintaining batteries.

Regularly check batteries for signs of physical damage or deterioration.

Ensure spill containment and first aid facilities are available in case of an incident.

Provide PPE that is:

- suitable for the nature of the work and the hazard (e.g. when handling or using batteries or the electrolyte)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Further information

SafeWork SA *Safety Alert – Lead acid batteries*
safework.sa.gov.au

Confined spaces

Hazards/risks

Larger vehicles may contain internal areas where a hazardous atmosphere may occur by design, or as a result of the work being done.

Spraying inside the cavity of vehicles can cause exposure to hazardous chemicals, unsafe oxygen levels and the potential for fire or explosion.

If environmental conditions in service pits are conducive (e.g. limited natural airflow), concentrations of vapours and/or gases may build up to dangerous levels. Asphyxiation may result, or an explosion or fire may occur if flammable vapours or gases contact an ignition source.

Safety solutions

Eliminate the risk as the preferred option (e.g. carry out the work from outside the space).

Substitute the risk, isolate the risk or apply engineering controls (e.g. consider the nature of a confined space and the internal atmosphere).

A risk assessment must be done. A confined space entry permit completed by a competent person may be used as a record of the risk assessment.

Implement safe work practices.

Ensure workers are trained and competent to work in confined spaces.

Ensure an emergency response procedure is developed specifically for emergencies involving confined spaces, including a safe recovery process.

Ensure a competent stand-by person is placed outside a confined space for support and in case of emergency.

Provide ventilation in service pits.

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. masks, goggles, face shields, respirators)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers, who have been trained in its use and care.

Further information

Code of Practice: Confined Spaces

safework.sa.gov.au/cop

A sample *Confined Space Entry Permit* can be found on page 93. This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Dusts, fumes and gases

Hazards/risks

Workers may be exposed to a variety of airborne substances such as dusts, fumes, gases, vapour, mists and smoke. The aim is to keep concentrations of all airborne contaminants as low as is reasonably practicable, regardless of whether they are known to present a health hazard.

Vehicle emissions, particularly diesel, are a serious problem in automotive workshops, as are welding and paint fumes.

Cleanup of dusts, in particular, can exacerbate the problem through re-suspension, and the risk can be transported from the initial exposure/emission point to another (e.g. by air, wind, on clothing).

Dusts, fumes and gases can also pose a potential fire or explosion risk.

Asbestos dust may also be an issue – read more on page 50.

Dusts, fumes and gases can accumulate or remain suspended in the air long after their production has ceased.

Safety solutions

Regularly inspect and clean ventilation and dust collection systems to remove dust build-up.

Isolate the hazard by either enclosing processes or using remote operation (e.g. pendant controls, enclosed vehicle cabs, control rooms).

Install local exhaust ventilation to capture dust, fumes and gases at the source (e.g. use on-tool extraction when cutting or sanding).

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. gloves, masks, goggles, face shields, respirators)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Adopt good workplace hygiene practices – have a regular cleaning routine, preferably using vacuuming or wet mopping instead of sweeping.

Lunchrooms and/or non-work areas should be considered clean zones, and contaminated PPE must be removed before entering these areas.

Further information

For further information on respiratory protection, refer to Australian Standards:

- *AS/NZS1715: Selection, use and maintenance of respiratory protective equipment*
- *AS/NZS1716: Respiratory protective devices*

SafeWork SA *Safety Alert – Local exhaust ventilation*

safework.sa.gov.au

Refer also to the fact sheet *Controlling construction dust with on-tool extraction* available from

hse.gov.uk/pubns/cis69.htm.

Fire and explosion

Hazards/risks

Fire and explosion can result in catastrophic consequences causing serious injury or death, as well as significant property damage.

They occur when three primary elements come together:

- a fuel source (a flammable or combustible substance)
- an oxygen source (usually in the air)
- an ignition source (sufficient to cause ignition).

Safety solutions

Store flammable materials in their original, clearly labelled and tightly sealed containers, away from heat sources, ignition sources or direct sunlight.

Store flammable and oxidising gases outdoors, in a mesh cage (if possible), and separate them from each other by a distance of at least 5 metres.

Keep flammable, explosive or combustible substances at the lowest practicable quantity.

Remove hazardous substances that are not immediately needed (e.g. keep the quantity of spray material in spray areas to a minimum so that it does not exceed what's required for one day's operations).

Return unused or surplus liquids to their designated containers to avoid mixing different liquids.

Eliminate short circuits.

Have suitable, regularly maintained fire extinguishers readily available.

Ensure workers are trained in the use of fire-fighting equipment.

Consider installing a fixed, automatic fire-fighting system, which should be regularly serviced.

Dispose of all waste materials, including chemicals and paint/solvent-soaked rags, as soon as possible.

Hazardous chemicals

Hazards/risks

Some chemicals act as skin irritants, carcinogens or respiratory sensitisers, with adverse health effects usually arising from exposure through inhalation, direct skin contact or ingestion.

Many chemicals can cause a sudden and very strong reaction when they come into contact with bare skin.

Hazards can result from the chemical or physical properties of some substances – they may be flammable, corrosive, oxidising or explosive.

Substances that can cause contact dermatitis include acids, alkalis, oils, solvents, petroleum products, soaps and detergents. Manufactured products which may affect the skin include synthetic rubber, plastics, fibreglass, resins and glue.

From 2017 South Australia has adopted a new system of chemical classification and hazard communication – the *Globally Harmonised System of Classification and Labelling of Chemicals* (GHS).

This replaces all previous systems and is now used to classify the physical health and environmental hazards of workplace chemicals and to standardise information on labels and Safety Data Sheets (SDS). Visit **safeworkaustralia.gov.au** for more information.

Read more about exposure standards and health monitoring on page 49.

Safety solutions

Ensure the SDS for any chemical in use is readily available. Manufacturers and importers of hazardous substances are required to provide warning labels and SDS which list important information on handling products safely, including potential health effects, precautions for use, safe storage suggestions and emergency first aid instructions.

Maintain a central register of hazardous substances.

Replace lids on containers after each use.

Ensure storage areas are fit for purpose and well ventilated.

If possible, have tasks performed without using the hazardous substance (e.g. by changing the method or process).

Substitute hazardous chemicals or irritating substances with less harmful alternatives, where possible.

Use the smallest amount of chemical necessary.

Train workers in the safe handling, use and storage of chemicals (including information about contact dermatitis).

Provide personal protective equipment (PPE) that is:

- suitable for the chemical substances being used, the nature of the work and the hazard (e.g. gloves, goggles, respirators, barrier creams), and as per the SDS
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers, who have been trained in its use and care.

Ensure workers adopt good hygiene and housekeeping practices (e.g. hand washing and drying/cleaning up spills, splashes and sprays).

Ensure trained first aid personnel and facilities are available.

Provide cleansers made from vegetable oil to ensure workers do not use solvents to remove grease and other substances from their hands that will not wash off with soap and water.

Ensure workers promptly treat minor cuts and abrasions, regularly use moisturising creams, and seek medical attention if they experience dermatitis symptoms.

Further information

Code of Practice: Managing Risks of Hazardous Chemicals in the Workplace

For specific information on what a manufacturer or importer must include in an SDS and label:

- *Code of Practice – Labelling of Workplace Hazardous Chemicals*
- *Code of Practice – Preparation of Safety Data Sheets for Hazardous Chemicals.*

safework.sa.gov.au/cop

SafeWork SA *Safety Alert – Contact dermatitis*

safework.sa.gov.au

Product safety recall

Subscribe to the recalls section of the Product Safety Australia website **productsafety.gov.au** for daily recall notifications.

These can then be delegated to one or two responsible workers who are tasked with checking for and removing recalled products from use.

Spray painting and powder coating

Hazards/risks

The processes involved in spray painting and powder coating are particularly hazardous due to a combination of factors such as the use, handling and storage of hazardous substances, and exposure to electrical, fire, explosion, noise and plant hazards.

For some high risk activities, such as spray painting and abrasive blasting, PPE should always be used to supplement higher level control measures.

Read more about exposure standards and health monitoring on page 49.

Safety solutions

Use properly designed spray painting booths, enclosed or partially enclosed.

Inspect and maintain spray booths regularly.

Provide breathing air, if required.

Keep spray booths clear of residues and overspray.

Control spray drift in walkways, public areas and air conditioning intake vents.

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. gloves, masks, goggles, face shields, respirators)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Keep records of PPE maintenance (e.g. filter replacement of respiratory protection).

Further information

Code of Practice: Spray Painting and Powder Coating

safework.sa.gov.au/cop

Australian Standards:

- *AS/NZS 4114.1: Spray painting booths, designated spray painting areas and paint mixing rooms – Design, construction and testing*
- *AS/NZS 4114.2: Spray painting booths, designated spray painting areas and paint mixing rooms – Installation and maintenance*
- *AS/NZS1715: Selection, use and maintenance of respiratory protective equipment*
- *AS/NZS1716: Respiratory protective devices*

Quick safety scans – hazardous substances

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Asbestos	Always	Sometimes	Never
All asbestos-containing materials are handled safely and appropriately, as per Codes of Practice	☐	☐	☐
An asbestos removal management plan has been developed	☐	☐	☐
The plan is regularly reviewed in consultation with workers	☐	☐	☐
An asbestos register is kept	☐	☐	☐
Workers are trained in safe asbestos removal practices	☐	☐	☐
Health monitoring is carried out (if required)	☐	☐	☐

Batteries	Always	Sometimes	Never
Workers are trained in safe procedures for using, handling, storing and maintaining batteries	☐	☐	☐
There is a procedure for safe charging of batteries	☐	☐	☐
Batteries are regularly checked for signs of physical damage or deterioration	☐	☐	☐
Appropriate PPE is provided and worn when handling or using batteries or the electrolyte	☐	☐	☐
Spill containment and first aid facilities are available	☐	☐	☐
SDS is available for electrolyte spill containment, clean-up and disposal	☐	☐	☐

Confined spaces	Always	Sometimes	Never
Risk assessments are conducted to determine if your workplace has, or work is carried out in, confined spaces	☐	☐	☐
Confined space risks are identified, eliminated or minimised	☐	☐	☐
Confined space entry permits are completed by a competent person	☐	☐	☐
Workers are trained and supervised when working in confined spaces	☐	☐	☐
A specific emergency response procedure has been developed and drills conducted for confined space emergency and recovery	☐	☐	☐
A competent stand-by person is placed outside the confined space for support and in case of emergency	☐	☐	☐
Task-appropriate PPE is provided and used	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐

Dusts, fumes and gases	Always	Sometimes	Never
Ventilation and dust collection systems are regularly inspected and cleaned	☐	☐	☐
Hazards are isolated by enclosing processes or using remote operation	☐	☐	☐
Local exhaust ventilation is installed, where needed	☐	☐	☐
Air quality is monitored (e.g. workers do not suffer from dry, irritated eyes)	☐	☐	☐
Appropriate PPE is issued and worn	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐
Risk assessments are conducted for processes generating dust, smoke, fumes or gases	☐	☐	☐
Lunchrooms/non-work areas are clean zones	☐	☐	☐
Good workplace hygiene is practiced	☐	☐	☐
Health monitoring is carried out (if required)	☐	☐	☐

Fire and explosion	Always	Sometimes	Never
Flammable liquid storage area is free of ignition sources	☐	☐	☐
Spills are cleaned up quickly	☐	☐	☐
The flammable liquids storage area has spill catchment (e.g. steel drip tray, concrete bund)	☐	☐	☐
Paint and solvent containers are earthed during decanting to stop build-up of static electricity	☐	☐	☐
Flammable liquids are only stored with compatible dangerous goods (e.g. no gas cylinders)	☐	☐	☐
Correct type of fire extinguishers are provided and signed appropriately	☐	☐	☐
Fire extinguishers are regularly maintained	☐	☐	☐
Fire extinguishers are located close to potential hazards (e.g. where flammable substances are used)	☐	☐	☐
Waste materials (e.g. paint/solvent-soaked rags) are disposed of as soon as possible	☐	☐	☐
Rubbish is stored away from flammable substances	☐	☐	☐
Flammable, explosive or combustible substances are kept at lowest practicable quantities	☐	☐	☐
Advisory/warning signage is in place (e.g. *Caution – Risk of Fire/Risk of Explosion*)	☐	☐	☐
You have developed an emergency response plan, and it is tested on an annual basis	☐	☐	☐
Emergency wardens are identified and trained to respond in case of an emergency	☐	☐	☐
Emergency exits/evacuation routes are identified and signposted within the workplace	☐	☐	☐

Hazardous chemicals	Always	Sometimes	Never
Risk assessments are regularly conducted for hazardous chemicals	☐	☐	☐
Safe work procedures are in place and workers are trained in the safe handling, use and storage of hazardous chemicals	☐	☐	☐
Legal requirements are met for storage, disposal and licensing	☐	☐	☐
Workers are trained in the safe handling, use and storage of hazardous chemicals	☐	☐	☐
SDS are available for all chemicals in use	☐	☐	☐
A chemical register is kept	☐	☐	☐
Dermatitis-causing substances are identified	☐	☐	☐
Irritating substances are replaced with less hazardous alternatives	☐	☐	☐
Chemical containers are clearly labelled	☐	☐	☐
Containers are tightly closed when not in use	☐	☐	☐
Chemical storage is appropriate and well-ventilated, in accordance with the SDS	☐	☐	☐
Areas where chemicals are used are adequately ventilated	☐	☐	☐
Good workplace hygiene and housekeeping is practiced	☐	☐	☐
Waste oils and other products are disposed of appropriately	☐	☐	☐
Emergency procedures are in place for management of spills and incidents	☐	☐	☐
Spill kit/containment equipment is readily available and workers trained in its use	☐	☐	☐
Advisory/warning signage is in place	☐	☐	☐
Correct PPE (e.g. gloves, safety goggles, protective clothing, barrier creams) is provided and used	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐
Workers use vegetable oil-based cleansers, not solvents, for hand-cleaning	☐	☐	☐
Workers care for their skin by promptly treating minor cuts and abrasions, and using moisturising creams	☐	☐	☐
Workers seek medical attention if they have dermatitis symptoms	☐	☐	☐
Health monitoring is carried out (if required)	☐	☐	☐

Spray painting and powder coating	Always	Sometimes	Never
Ignition sources are removed	☐	☐	☐
Breathing air is supplied	☐	☐	☐
Spray booth is clear of obstructions and the exit is clear	☐	☐	☐
Spray booth is clear of residues and overspray	☐	☐	☐
Mixing room has adequate ventilation	☐	☐	☐
Spray booth is maintained and calibrated (service and filter change records are up-to-date and kept)	☐	☐	☐
Spray drift into other areas is controlled	☐	☐	☐
Respiratory PPE is provided and used	☐	☐	☐
Workers are trained in the correct use and care of PPE	☐	☐	☐
PPE is maintained, repaired or replaced as required	☐	☐	☐
Advisory/warning signage is in place (e.g. *Respiratory Mask Protection Must Be Worn*)	☐	☐	☐
Health monitoring is carried out (if required)	☐	☐	☐

Wellbeing, psychological and physical health

Wellbeing, psychological and physical health

The World Health Organization defines a healthy workplace as one where workers and managers collaborate to use a continuous improvement process to protect and promote the health, safety and wellbeing of all workers and the sustainability of the workplace.

While it is difficult to control what people do, eat, drink or smoke in their own time, and how they are dealing with issues away from the workplace, it is now widely accepted that these issues are directly related to work health and safety.

The costs of sick leave and replacing those workers who are forced to leave due to health psychological and physical problems can be a hidden productivity issue with potential business impacts.

If workers are making unhealthy dietary and lifestyle choices, this can contribute to fatigue and impact on fitness for work. Those who aren't looking after their health and wellbeing are also less productive and more likely to be involved in workplace incidents.

There are also associated risks such as obesity and long-term chronic disease (e.g. diabetes) impacting on the wellbeing of workers.

And when you consider that workers could potentially be exposed to workplace hazards such as paints, chemicals, fumes and dusts, this can heighten the potential risks of developing chronic health issues.

Well designed and managed workplaces can play a role in promoting worker health and wellbeing, as well as minimising ill health and facilitating recovery and return to work after injury or illness

A mentally healthy workplace protects and promotes psychological health by preventing common psychosocial hazards such as fatigue, bullying, discrimination and stressful working conditions.

Workplaces are increasingly a setting for physical health promotion and preventative activities (e.g. smoking, obesity, drug and alcohol use) to assess and improve people's overall health as well as reduce work-related injury.

Further information

Safe Work Australia's fact sheet *Preventing Psychological Injury under Work Health and Safety Laws*

safeworkaustralia.gov.au

The 'Healthy living' section of the SA Health website provides tips and tools to foster better health, wellbeing and healthy lifestyles.

sahealth.sa.gov.au

Alcohol and drugs

Hazards/risks

In Australia alcohol use is a daily part of many people's lives. Although the use of illicit drugs is not as common, those who have used these drugs at least once is reported to be increasing.

The effects of both alcohol and illicit drug use during and outside of work hours can have a significant impact on workplace health, safety and productivity. Co-ordination, motor control, alertness and ability to exercise judgement can become affected. This risk is greater where people operate machinery, drive or rely on concentration to do their work.

Prevailing workplace culture, availability, physical isolation, job satisfaction and stress are a few of the other factors that might also increase the likelihood of alcohol or other drug consumption.

Workers under the influence present an injury hazard to themselves. They may also place their workmates in danger or in the difficult position of being expected to cover for unsafe work practices or having to report a fellow worker.

Damage to property or equipment and negative publicity for a business are also potential issues.

Safety solutions

If an alcohol or other drug-related hazard is identified in a workplace, you need to eliminate or reduce any related harm, as far as is practicable.

Consider developing an alcohol and drug policy which sets out everyone's responsibility to ensure a healthy and safe work environment. The content should be based around an assessment of the associated risks and the individual requirements of your workplace. The policy should clearly state what is acceptable and the consequences of any unacceptable behaviour. Develop the policy in consultation with your workers, communicate it clearly to all members of the workforce, display it and ensure that workers have read, understood and signed it.

Some other solutions include:

- providing behaviour change/prevention information and education, counselling and rehabilitation arrangements
- creating opportunities for return to usual work duties by affected workers
- providing food and low alcohol/non-alcoholic alternatives if alcohol is allowed at functions
- providing alternative travel arrangements for workers affected by alcohol or drugs.

Further information

Information about resources and services available to help employers and workers is available at **safework.sa.gov.au**.

Framework for alcohol and drug management in the workplace, Workplace Health and Safety Queensland **worksafe.qld.gov.au**

Check with your industry association for any current alcohol and drug policies (e.g. Motor Trade Association SA **mta-sa.asn.au**).

SA Health

Drug and alcohol emergency information.

sahealth.sa.gov.au

Alcohol and Drug Information Service

A confidential telephone counselling, information and referral service staffed by trained professionals. Phone 1300 13 1340 from 8.30am to 10pm every day (local call fee for South Australians) or visit **sahealth.sa.gov.au**.

Drug and Alcohol Services South Australia

A range of information resources, pamphlets and posters for download, some available for order.

sahealth.sa.gov.au

beyondblue

Drugs, alcohol and mental health fact sheet.

resources.beyondblue.org.au

Counselling Online

Free and confidential 24/7 online drug and alcohol counselling and referral line, phone 1800 888 236.

counsellingonline.org.au

Bullying

Hazards/risks

Workplace bullying can have a significant negative impact on individuals and the workplace. Like all hazards at work it needs to be managed.

Everyone at work has a responsibility for work health and safety – both physical and psychological – and to ensure that bullying does not occur.

Safety solutions

Develop an anti-bullying policy in consultation with your workers.

Ensure workers are aware of the bullying reporting process.

Adopt a process for dealing with bullying complaints.

Provide educational information and support.

Further information

Safe Work Australia's national bullying guides explain what is and isn't workplace bullying, how it can occur and how risks can be managed.

safeworkaustralia.gov.au

The **employer's guide** shows how to identify the risk of bullying occurring. For example, it's a good idea to monitor incident reports and patterns of absenteeism, and develop anti-bullying policies and procedures. It also explains how to respond to bullying and conduct an investigation into allegations of bullying.

The **worker's guide** outlines where to get advice and what steps to take if bullying is occurring. It also provides information on what to do if a workplace bullying report has been made. In addition, it highlights the new provisions of the Commonwealth's *Fair Work Act 2009* which allows the Fair Work Commission to consider individual applications to stop bullying.

Fatigue

Hazards/risks

Fatigue is a state of mental and/or physical exhaustion which reduces the ability to perform tasks safely and effectively – it is more than just feeling a little drowsy.

Being awake for 17 hours impairs performance to the same level as having a 0.05 blood alcohol content. Being awake for 20 hours has the same effect as a 0.1 blood alcohol content. 1

Everyone's ability to remain alert can be reduced by fatigue, which can adversely affect safety at work.

Fatigue can be caused by either work or non-work factors, or a combination of both, and can accumulate with time.

1 WorkSafe Victoria, WorkCoverNSW, *Fatigue Prevention in the Workplace,* August 2008

Safety solutions

Avoid working during periods of extreme heat or cold, or minimise exposure time through job rotation.

Encourage workers to report concerns they may have about work-related fatigue.

Design working hours and rosters to enable enough recovery time between shifts.

Ensure workers take adequate and regular breaks to rest, eat and rehydrate.

Further information

For more information, refer to Safe Work Australia's national fatigue guides which provide information about workplace fatigue: why it's a problem, the signs of fatigue and how to mitigate the risks.

The guides outline the factors that can contribute to fatigue (e.g. shift work), how the risks can be assessed and controlled, and what workers' responsibilities are in managing fatigue.

safeworkaustralia.gov.au

Health and wellbeing

Hazards/risks

Because working in a workshop is seen as a physical job, it's often assumed that it is also a healthy occupation, with plenty of exercise and fresh air.

However, the reality is that workshop workers face a number of different impacts on their personal health and wellbeing which may affect their ability to remain fit and well.

Obesity is on the rise due to inappropriate food choices, smoking is common, and alcohol and drugs are used widely, especially by young workers and often at high levels.

Unhealthy dietary and lifestyle choices can affect fitness for work and productivity, and potentially lead to long-term chronic disease, the risk of which may be heightened by exposure to other workplace hazards (e.g. smoking combined with exposure to chemicals, fumes and dusts).

Poor health and wellbeing can also be a hidden productivity issue for many Australian businesses.

Business impacts

It is worth considering if your business could cope without you if you had a significant health issue. If you have a team of workers, you also need to consider the costs of sick leave and replacing those who are forced to leave due to health issues.

Having a healthy workforce makes sense because:

- poor employee health and absenteeism costs Australian businesses $7 billion annually (or an estimated $2700 per worker, per year) 1
- unhealthy workers take up to 9 times more sick leave than their healthy colleagues 1
- healthy workers are nearly 3 times more productive than unhealthy workers 1
- presenteeism (not functioning fully while at work, due to poor health) is estimated to cost Australian business $26 billion per year in lost productivity (2005/06) 2
- obesity-related poor health is estimated to cost South Australian businesses $273 million per year (2008). 3

1 *The health of Australia's workforce,* November 2005, Medibank Private

2 *Workplace Wellness in Australia,* 2010, Price Waterhouse Coopers

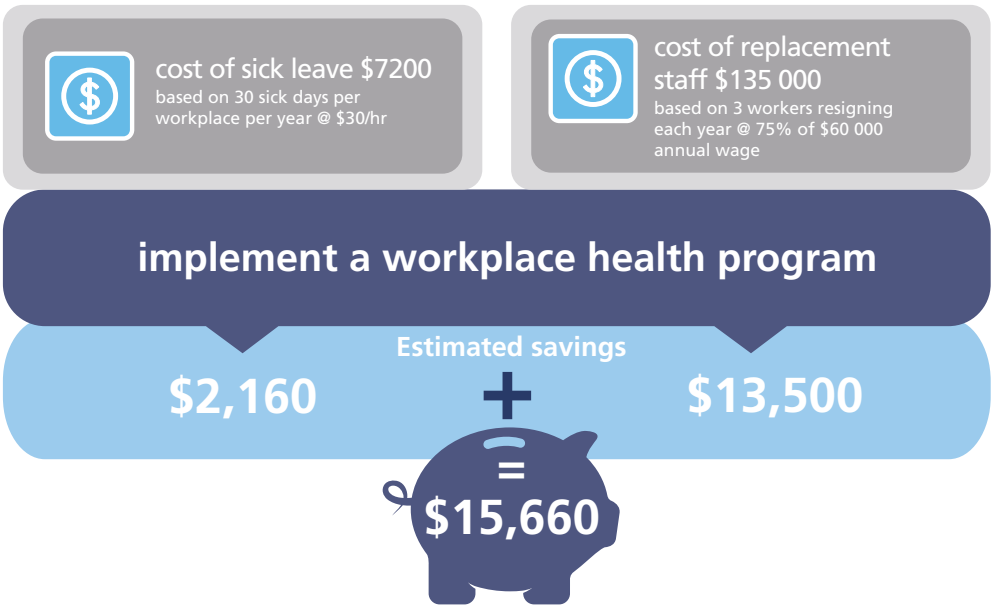
3 *The growing cost of obesity in 2008,* report for Diabetes Australia by Access Economics Pty Ltd, 2008.

Cost of sick leave

Implementing a successful workplace health program can decrease staff absenteeism/sick leave by an average of 30%.

Cost of replacement staff

Implementing a successful workplace health program can decrease staff turnover by an average of 10%.



Safety solutions

Offer healthy food choices at the workplace.

Support workers to participate in regular physical activity, through promotion, education and access to physical activity and involvement opportunities.

Support worker wellbeing through work practices, a positive workplace and leadership

Further information

Workplaces can act as a setting for physical health promotion and preventative activities.

The 'Healthy living' section of the SA Health website provides tips and tools to foster better health, wellbeing and healthy lifestyles.

- Try *Get Healthy,* a free, confidential information and telephone-based coaching service that helps adults make lifestyle changes in relation to healthy eating, being physically active and achieving and maintaining a healthy weight.
- Download the *Healthy Workers* Healthy Futures toolkit, a guide to developing a successful workplace health program.
- Utilise Step 2 of the Healthy Workers Audit Tool to do an audit of how well your workplace currently supports worker health and wellbeing.
- Access the *SA Brief Health Check* which assesses current lifestyle and provides tips and referrals to support change.
- Search for SNAP resources (Smoking, Nutrition, Alcohol, Physical Inactivity).

sahealth.sa.gov.au

Smoking

Hazards/risks

The *Tobacco Products Regulation Act 1997* prohibits smoking in all enclosed workplaces (e.g. offices, shops, factories, work vehicles).

Workplace exposure to passive smoke can produce symptoms of ill health, particularly for people with pre-existing medical conditions (e.g. respiratory or cardiovascular). Workers must be protected from the harmful health effects of exposure to second-hand tobacco smoke.

Workers who smoke should not be stigmatised.

Safety solutions

The following control measures are key to successfully achieving a smoke-free work environment:

Commitment: Demonstrate senior management commitment and support to the development of a smoke-free workplace policy.

Consultation: Consult with workers during the development and implementation of the policy.

Policy: Following consultation, develop and communicate a written non-smoking policy. The policy should ban smoking from the workplace and include all indoor areas, vehicles and areas where smoke could drift into workplaces.

Support: Establish designated outdoor areas where smoking is permitted. These areas should have adequate natural ventilation and be placed where smoke cannot drift into smoke-free areas.

Communication: Make management, workers, customers and visitors aware of the policy. Use signage so that everyone knows where they cannot smoke (e.g. toilets, stairwells, foyers, staff rooms).

Offer encouragement to quit smoking by:

- placing health and 'Quit' information in strategic locations (e.g. staff rooms)
- not selling cigarettes at the workplace
- inviting 'Quit' program providers to talk with workers
- offering incentives to participate in 'Quit' programs
- referring smokers to the Quitline for help.

Further information

Further information and details of support are available at **safework.sa.gov.au**.

SA Health has a smoke-free workplace guide to help you meet your legal requirements and support the development of smoke-free policies – download it from **sahealth.sa.gov.au**.

Work-related stress

Hazards/risks

Workplace injury claims for stress-related mental disorders are estimated to cost Australian business more than $200 million annually. 1

Work-related stress describes the physical, mental and emotional reactions of workers who perceive that their work demands exceed their abilities and/or their resources (such as time, help/support) to do the work. Stress occurs when people feel they are not coping in situations where it is important to them that they do.

A worker's response to stressors at work may be positive or negative depending on the type of demands placed on them and the amount of control they have of the situation, as well as support they receive and their individual response.

In the vast majority of instances people adjust to stressors and are able to continue to perform their normal work duties. While stress itself is not a disease, where it becomes excessive and long-lasting, it can lead to ill health.

Employers have a primary duty of care to ensure, so far as is reasonably practicable, that the health and safety of their workers is not put at risk. This duty extends to protecting workers from the risk of harm from stressors at work.

1 NOHSC 2003, from Work-related mental disorders in Australia, April 2006, Safe Work Australia

Safety solutions

Workplace Health and Safety Queensland has a series of 12 fact sheets on managing work-related stress. **worksafe.qld.gov.au**

WorkSafe Victoria has a *Stress-Wise* kit that explains the risks of work-related stress and what you need to do to identify, prevent and manage them. **worksafe.vic.gov.au**

Work-related violence

Hazards/risks

Work-related violence is any incident in which a person is abused, threatened or assaulted in circumstances relating to their work.

This definition covers a broad range of actions and behaviours that can create a risk to the health and safety of workers.

Work-related violence can result in both physical and psychological injuries to workers, and cause significant economic and social costs to them, their family, the business where they work and the wider community.

Safety solutions

SafeWork SA's guide *Preventing and Responding to Work-Related Violence* helps employers and workers identify work-related violence hazards and ways to eliminate or minimise them.

Two types of work-related violence are covered:

- external violence – usually associated with robbery or other crimes where the perpetrator is someone from outside the workplace
- service related violence – arises when providing services to clients, customers, patients or prisoners.

This guide will assist in the development of work systems for the prevention of violent incidents, and responses to them should they occur.

safework.sa.gov.au

Quick safety scans – wellbeing, psychological and physical health

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Alcohol and drugs	Always	Sometimes	Never
You have a drug and alcohol policy, developed in consultation with workers	☐	☐	☐
The policy is displayed in the workplace	☐	☐	☐
Workers have read, understood and signed the documentation	☐	☐	☐
Educational information and support programs are provided	☐	☐	☐
If alcohol is allowed at work functions, you provide food and low alcohol/non-alcoholic alternatives	☐	☐	☐
Alternative travel arrangements are provided for workers affected by alcohol/drugs	☐	☐	☐

Bullying	Always	Sometimes	Never
An anti-bullying policy has been developed in consultation with workers	☐	☐	☐
Workers are aware of the bullying reporting process	☐	☐	☐
You have a process for dealing with bullying complaints	☐	☐	☐
Educational information and support is available	☐	☐	☐
An employee assistance program is available to workers	☐	☐	☐

Fatigue	Always	Sometimes	Never
Fatigue risks have been assessed	☐	☐	☐
Strategies/policies are in place to handle risks	☐	☐	☐
Fatigued workers are given time off work	☐	☐	☐
Rosters allow for adequate recovery time between shifts	☐	☐	☐

Health and wellbeing	Always	Sometimes	Never
Healthy food choices are offered in the workplace	☐	☐	☐
Workers are supported to participate in regular physical activity through promotion, education and access to physical activity and involvement opportunities	☐	☐	☐
Worker wellbeing is supported and promoted through work practices, a positive workplace culture and leadership	☐	☐	☐
Educational and information support programs are provided	☐	☐	☐

Smoking	Always	Sometimes	Never
A smoke-free workplace policy has been developed in consultation with workers	☐	☐	☐
The policy is displayed in the workplace	☐	☐	☐
You have designated outdoor smoking areas	☐	☐	☐
'No smoking' signage is in place	☐	☐	☐
'Quit' information and support is available	☐	☐	☐

Work-related stress	Always	Sometimes	Never
Work-related stress risks have been assessed	☐	☐	☐
Strategies/policies are in place to handle risks	☐	☐	☐
Educational information and support is available	☐	☐	☐
An employee assistance program is available to workers	☐	☐	☐

Work-related violence	Always	Sometimes	Never
Work-related violence risks have been assessed	☐	☐	☐
Strategies/policies are in place to handle incidents	☐	☐	☐
Educational information and support is available	☐	☐	☐
An employee assistance program is available to workers	☐	☐	☐

Proformas

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Work Health and Safety Policy

This policy shows the commitment of the management and workers in this workplace to health and safety and:

- aims to remove or reduce risks to the health and safety of all workers, contractors and visitors to this workplace and anyone else who may be affected by our operations
- aims to ensure all work activities are done safely
- recognises that health and safety is most effective when a collaborative approach is used to identify and solve problems
- commits to continuously improving work health and safety by addressing hazards and reviewing outcomes.

The Person Conducting a Business or Undertaking (PCBU) must:

- ensure their responsibilities under the *Work Health and Safety Act 2012* (SA) and *Work Health and Safety Regulations 2012* (SA) are met
- take reasonable steps to provide and maintain a safe working environment, plant and substances in a safe condition, and facilities for the welfare of all workers
- provide ways for workers to be informed about and involved in health and safety issues at work
- provide information, instruction, training and supervision needed to make sure that all workers are safe from injury and risks to their health and safety
- conduct regular workplace inspections
- ensure this policy and all safe work procedures are kept up-to-date.

Workers must:

- take reasonable care for their own health and safety, and ensure that their acts or omissions do not adversely affect the health and safety of others in the workplace
- follow reasonable instructions given by the PCBU to protect their health and safety
- identify and report any workplace incidents or hazards to their supervisor
- not wilfully interfere with or misuse items or facilities provided.

Visitors and contractors must:

- not put themselves or any other person at the workplace at risk
- comply with our safety policy.

Policy authorised by

Name

Signature

Date

Review date

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Record of Safety Discussions

Business name

Date

Completed by

Persons present

Comments and issues raised

Corrective action	Action by	Action complete	
		Date	Sign-off

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Hazard List and Risk Assessment

Business name

Date

Completed by

Hazard	Risk severity/ consequence (fatality, critical, major, minor, negligible)	Likelihood (very likely, likely, unlikely, very unlikely)	Risk level (extreme, high, medium, low, very low)

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Risk Control Plan

Business name

Date

Completed by

Hazard	Action required to control the hazard	Completion date	Responsible person
Extreme			
High			
Medium			
Low			

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Induction Checklist

Worker's name

Position / job title

Employment start date

Supervisor / manager

Introduction *(explain to new workers about ...)*

- [ ] the industry, nature and structure of your business
- [ ] roles of key people in your business
- [ ] job, tasks and responsibilities

Job introduction

- [ ] demonstrate to the worker how to do the job correctly and safely
- [ ] provide required information and supervision
- [ ] introduce other workers and the supervisor
- [ ] introduce the first aid officer and show location of first aid supplies
- [ ] explain and demonstrate emergency procedures
- [ ] show the location of exits and emergency/fire equipment
- [ ] show the work area, toilet, drinking water and eating facilities
- [ ] show how to safely use, store and maintain tools, machinery, hazardous substances and personal protective equipment (PPE)
- [ ] show where to make phone calls and collect messages

Employment conditions

- [ ] work times and meal breaks
- [ ] rates of pay and how payment is made
- [ ] superannuation and other deductions
- [ ] leave entitlements
- [ ] notification of sick leave or absences

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Health and safety

- ☐ health and safety policy, safe work procedures (provide a copy)
- ☐ roles and responsibilities of people in the workplace (e.g. Health and Safety Representatives)
- ☐ hazards in the workplace, how they are controlled, and how to report them
- ☐ how to report health and safety issues (including forms)
- ☐ how they will be kept informed about and consulted on health and safety issues
- ☐ work injury insurance claims (e.g. show where forms are)
- ☐ incident reporting
- ☐ communication (e.g. when in remote location)

Other requirements

- ☐ quality procedures
- ☐ security issues
- ☐ hygiene procedures and facilities

Conducted by	Signature	Date

Worker's name	Signature	Date

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Training Plan

Use this plan with your Risk Control Plan to identify the training needs at your workplace and help you meet your work health and safety responsibilities.

Business name

Control action	What training is required?	Who is to be trained?	How?	When?

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Training Record

Business name

Name of participant	Course/topic	Conducted by	Date completed	Participant's signature

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Incident/Hazard Report

Business name		
Date of incident	Time (am/pm)	Date reported
Name of person reporting the incident/hazard		

First aid	Medical treatment	Hazard report
☐	☐	☐
Near miss	Property damage	Notifiable incident reported to SafeWork SA
☐	☐	☐

Name of person injured (if applicable)
Nature of injury
Part of body injured
Location of the incident
Description of incident or hazard
How did the incident occur (contributing factors)?
1.
2.
3.
4.
5.
6.

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Corrective actions

What needs to happen	By when	Person responsible

Sign-off

Name of person reporting	Signature	Date

Supervisor's name	Signature	Date

Manager's name	Signature	Date

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Hazardous Substance Register

Business name

Date

Completed by

Product name	Chemical name	UN Number	What is the product used for?	Maximum quantities stored	Location stored	SDS available?

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Confined Space Entry Permit

General

Location of work

Description of work

Isolation

Space needs to be isolated from (location/method)

Water / gas / steam / chemicals

Mechanical / electrical drives

Auto fire extinguishing systems

Hydraulic / electric / gas / power

Sludge / deposits / wastes

Locks and/or tags have been affixed to isolation points

Yes ☐ No ☐

Atmosphere

The atmosphere in the confined space has been tested.

Result of tests

Oxygen	Flammable gases	Other gases
%	% LEL	ppm (less than ppm)
%	% LEL	ppm (less than ppm)

Other airborne contaminants

The conditions for entry are as marked below

1. With supplied air breathing apparatus Yes ☐ No ☐

2. Without respiratory protection Yes ☐ No ☐

3. With escape unit Yes ☐ No ☐

Hot work

Area clear of all combustibles including atmosphere Yes ☐ No ☐

Type of appropriate fire prevention equipment available

Suitable access and exit Yes ☐ No ☐

Hot work permitted Yes ☐ No ☐

Personal protective equipment

The following safety equipment must be worn (types)

Respiratory protection

Harness/ lifelines

Eye protection

Hand protection

Footwear

Protective clothing

Hearing protectors

Safety helmet

Communication equipment

Other

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Other precautions

Warning notices/barricades	Yes ☐	No ☐
All persons have been trained	Yes ☐	No ☐
Continual air monitoring is required	Yes ☐	No ☐

Notes

Emergency response

Procedures / equipment

Standby person

Name

Procedures / equipment

Authority to enter

The control measures and precautions appropriate for the safe entry and execution of the work in the confined space have been implemented and persons required to work in the confined space have been advised of and understand the requirements of this written authority.

Signed (person in direct control)	Date	Time

This written authority is valid until	Date	Time

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Contractor Safety Management

Name	
Position	
Company name	
ABN	Licence / registration number (if applicable)
Address	
Phone number	Mobile
Email	
Names of your workers who could attend on site	
Services provided	

Provide a summary of any relevant insurances you hold
(e.g. public liability, workers compensation, personal accident/disability, relevant other).

Type	Insurer	Policy number	Expiry date
1.			
2.			
3.			
4.			
5.			

I have read and understood the CONTRACTORS SAFETY REQUIREMENTS attached.

Signed	Name	Dated

This is a sample document for you to personalise and tailor to suit your particular business needs and operations.

Contractor safety management requirements

1. As a contractor to our site, we regard you as a professional in your trade/area of expertise. You have responsibility for your own safety and the safety of your co-workers and others that your work activities may impact upon.
2. All contractors are responsible for ensuring they, and all persons working for or contracted by them, have completed a basic site induction and have read and understood the safety requirements detailed below. This must be done before starting work.
3. If working on a construction site, all workers must hold a White Card.
4. All contractors must sign in upon arrival and contact the person in charge of the area they will be working in. Sign out when you leave the site.
5. No work is to start until contractors, and everyone working for them or contracted by them, have been authorised to do so by the person in charge of the area they are working in.
6. Before starting work, all contractors working at this site have a duty to consult with other workers who may be affected by the planned work activities and where work health and safety matters arise during the course of the work.
7. All contractor equipment, materials, and personal protective equipment (PPE) must be in good condition, properly maintained and suitable for the job at hand. They must comply with the relevant legislative requirements and/or Australian Standards.
8. All work must be conducted in a safe, healthy and environmentally responsible manner, and comply with all legal/regulatory requirements.
9. Control any hazards (as deemed appropriate).
10. No equipment is to be repaired or maintained unless properly isolated/switched off and/or stopped.
11. Any equipment or materials found to be unsafe should be reported immediately to the person in charge and be tagged "out of service".
12. On a construction site, all mains-powered electrical equipment must have a current test tag.
13. A current safety data sheet must be available for any hazardous/dangerous chemical used.
14. For any high risk work (such as work at heights over 2m, confined space work, working with hazardous substances) you must have appropriate training and the correct equipment. An appropriate formal risk assessment, safe work method statement or job safety analysis must be completed before starting work.
15. PPE (e.g. hearing, foot, eye protection, hard hats, high visibility vests) must be worn/used as appropriate to the area and work being carried out.
16. All injuries, incidents and equipment damage/breakages/failures are to be reported immediately to the person in charge. If appropriate, an incident/injury form is to be filled out and submitted to the person in charge of the area.
17. A serious incident may be notifiable to SafeWork SA. Call 1300 365 255 to notify and preserve the scene of the incident.
18. Beware of vehicle traffic operating on site. Where possible, you must follow the designated pedestrian walkways (designated by yellow lines).
19. Demarcate/isolate visitors/clients from the work you are doing with appropriate warning signage and barriers.
20. Do not enter any areas which you are not authorised to enter.
21. Agree to follow the business privacy/confidentiality policy.
22. Maintain reasonable standards of housekeeping, cleanliness and hygiene.
23. Smoking, alcohol and illegal drugs are prohibited at the site.
24. No form of harassment/bullying will be tolerated.
25. Understand site emergency requirements (basic evacuation procedures, exit locations, evacuation assembly location).
26. Comply with any reasonable direction from the PCBU, Principal Contractor or Site Management. You could be asked to leave the site if any of the above requirements are not followed to reasonable expectations. Please ask the person in charge of your work if any doubt exists.
27. Remember, at (Insert PCBU name) we want you to be safe at work so you can go home at the end of each day.

For free information, advice and support please contact us:

1300 365 255

help.safework@sa.gov.au

safework.sa.gov.au

@safeworksa

safeworksa

Government of South Australia

SafeWork SA

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