



# Scientific testing and analysis - Checklist

## Contents

OSH management .....	1
Manual tasks .....	2
Slips and trips.....	4
Falls from height.....	5
Electricity.....	6
Guarding of plant.....	7
Isolation of plant .....	8
Mobile plant and vehicle movement .....	9
Hazardous substances.....	10
Violence and aggression .....	11
Pressure vessels.....	12
Contractor management.....	13
Other issues.....	14

**Regional Offices**

## OSH management



Report hazards



Conduct a risk assessment



Consultation



Provide training

- 
- Consultation takes place on OSH matters between management and employees.
- 
- Hazard and injury reporting:
- systems are in place for reporting hazards and injuries;
  - reported hazards and injuries have been adequately investigated; and
  - systems are in place for reporting notifiable injuries to WorkSafe.
- 
- In relation to all tasks:
- hazards have been identified;
  - the risk of injury has been assessed;
  - control measures have been so far as is practicable implemented; and
  - implemented control measures are regularly reviewed.
- 
- Safe operating procedures have been developed and implemented.
- 
- Employees have received adequate safety induction and task specific training in relation to OSH.
- 
- An OSH management system (eg WorkSafe Plan) has been implemented, including elements such as management commitment, safety planning, consultation and reporting, hazard management and training and consultation.
- 
- Safety and health representatives have been elected, as per Act.
- 
- Safety and health representatives have been trained, as per Act.
- 
- An OSH committee is in place.
-

## Manual tasks



Identify the manual tasks hazards



Conduct a risk assessment



Provide training



Report hazards



Trolleys are maintained

- 
- Manual task hazards have been identified** in consultation with employees.
- 
- Risk assessments** of hazardous manual tasks have been conducted. Risk factors, such as carrying, pushing, pulling, holding, restraining have been considered.
- 
- Practicable control measures** have been implemented and maintained to eliminate or reduce manual task risk in consultation with employees, such as: altering the workplace environment, design or layout; changing the systems of work; modifying the load being handled; changing the tools used to do the task or using mechanical aids. Consider:
- grab rails and adequate steps are in place (three points of contact available);
  - bins on wheels, use of trolley, use of smaller vehicle;
  - limit or avoid double handling of things or items;
  - implement work procedures to limit the manual tasks;
  - trolleys have been provided - no lifting of large or heavy items;
  - wheels of trolleys have been properly maintained and move freely;
  - trolleys are not overloaded when pushing – full visibility is required;
  - work is varied through job rotation or other systems to reduce repetitive actions over long periods of time, ie sorting at conveyors;
  - adequate mechanical aids has been provided and are used;
  - no lifting of heavy equipment, machinery or recyclable items;
  - no lifting of heavy equipment from one level to another level by stairs;
  - no lifting of heavy equipment from vehicles - lifting equipment is provided;
  - no reaching over work benches and equipment;
  - heavy items are stored at waist height and lighter items are stored at top shelves;
  - access to shelves, storage areas, cupboards is not obstructed;
  - ramps are in place where trolleys are used to go from one level to another level;
  - work benches and other work surfaces are at good height to reduce poor posture;
  - reaching aids, such as hooks, are available where required;
  - adequate and regular breaks are provided to avoid risk of fatigue, which may lead to muscle and soft tissue injuries, burns, cuts; and
  - well-designed controls and monitors in mobile plant and controls and seat maintained.
- 
- Task specific induction and refresher training** in relation to manual tasks is provided, refer to pages 17/18 of the Code of practice Manual tasks or to the manual task training package of the WorkSafe website. Elements of training should include:
- key sections of the OSH regulations and Code of practice Manual tasks;
  - the roles and responsibilities of the employers, employees and others;
  - consultation between the employer and employees in order to identify manual tasks, assess the risk of injury and identify measures to control the risk;
  - basic function of spine, body postures, types of muscle work and principles of levers;
  - the relationship between the human body and the risk of injury;
  - the activities included in manual tasks and resulting types of injuries;
  - risk factors and potential sources of risks; and
  - the control strategies to reduce the risk of manual tasks injuries.
-

## Manual tasks cont'd

---

- Reported manual task injuries and hazards have been investigated**
  - the investigation examined the incident details, mechanisms of injury, relevant risk factors, sources of risks, contributing factors, actions required and practicable control measures to be implemented; and
  - outcomes of the investigation have been reported to the person who reported the hazard or injury within reasonable timeframe;
  - the investigation examined the incident details, mechanisms of injury, relevant risk factors, sources of risks, contributing factors, actions required and practicable control measures to be implemented; and
  - outcomes of the investigation have been reported to the person who reported the hazard or injury within reasonable timeframe.

For further guidance, refer to the sample template [manual task investigation report](#) on [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au).

---

- Further information**, including a [manual tasks toolkit](#) is available from [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au) and includes:
    - Code of practice Manual tasks;
    - Manual tasks training package;
    - Video: Manual tasks risk management - Running time: 11:32 mins;
    - Worksheet: Manual tasks incident investigation (Word);
    - Worksheet: Manual tasks risk management tool (pdf); and
    - Risk management checklist for manual tasks.
-

## Slips and trips



Ensure the floor is slip resistant



Place warning sign on spills and wet floors



Eradicate trip and fall hazards



Guard rails on ramps and steps



Appropriate footwear is worn

- 
- Persons can move safely around workplaces - passages are kept free of obstructions.

---

  - Access to and egress from the workplace is free from obstructions at all times.

---

  - Emergency egress from the workplace is safe.

---

  - Ground, floors, stairs or ramps have unbroken and slip resistant surface.

---

  - Ground, floors, stairs or ramps are free from obstructions or hazards that may cause a person to fall, for instance no electrical leads, hoses, tools, mounted power boxes or water across walkways.

---

  - In areas where there is a risk of liquid coming into contact with the floor, adequate drainage is provided.

---

  - Systems are in place to ensure that the ground or floor is kept free from fall hazards and obstructions.

---

  - Workplaces are maintained in such clean condition as it necessary to avoid hazards to persons at the workplace – the workplace is kept clean and rubbish is removed.

---

  - Guard rails or other safeguards are provided on ramps and stairs.

---

  - Appropriate protective equipment, such as safety boots that complies with Australian Standard AS/NZ2210.1:1994 is provided, where required.

---

  - Ramps are available in areas where height of floor levels change and trolley access is required or items are carried regularly.

---

  - Steps have even risers and goings, which are not too high or low and have defined nosing and treads. Guidance is available in the Building Code of Australia

---

  - Warning signs are available and erected near spills.

---

  - Safety steps or stepladders are designed appropriately – no standing or sitting on milk crates.
-

## Falls from height



Hazards have been identified and risks assessed



Edge protection is in place where required



Provide training and instruction



Keep walkways free of obstructions



Ladders comply with Australian Standards

- 
- Falls from heights hazards have been identified** in consultation with employees.
- Key areas to check at the workplace include surfaces, levels, structures, the ground, raised working areas, scaffolding, edges, hand grips, openings or holes, proximately of employees to unsafe areas (for instance where loads are placed on elevated areas, where objects are below a work area, where work is carried out above workers and where power lines are in the working area), movement of plant and equipment, access to, egress from and movement in the working area, manual tasks, lighting, weather conditions, suitability of footwear and clothing, ladders and young or new inexperienced workers.
- 
- Risk assessments** of identified fall from height hazards have been conducted.
- 
- Practicable control measures** have been implemented and maintained to eliminate or reduce falls from heights risk in consultation with employees, for example:
- safe means of access to and egress from the work at heights is provided;
  - adequate edge protection or a fall injury prevention system (fall arrest system, catch platform, scaffold, safety nets or safety mesh) is in place in place when:
    - a person could fall more than 2 metres from a scaffold, fixed stairs, landing, suspended slab, formwork or false work; and
    - in any other situation where a person could fall 3 or more metres.
  - portable ladders comply with Australian Standard AS 1892.1 1996 (metal) or AS 1892.2 1992 (wooden) – for work on or near electrical equipment provide appropriate equipment;
  - adequate plant or equipment is provided for the task, for instance an elevated work platform, a specifically designed industrial lift truck to lift persons into position or a specifically designed mancrage that is securely attached to a forklift (no standing in excavator bucket or on pallet raised by forklift);
  - stairs, walkways, ladders and mechanical lifts re obstruction free;
  - where items are stored on suspended storage areas or mezzanine floors:
    - a competent person has conducted a risk assessment to ensure the structural integrity of the storage area;
    - adequate edge protection has been provided; and
    - the access and egress to and from this storage area is safe.
  - the height of the first step of the vehicle/truck/plant is accessible, width and tread on step are adequate, grab rails are available and there are three points of contact;
  - for access to top of vehicle/truck/plant a scaffold, portable platform ladder, fall arrest system and/or railing on top of vehicle/trucks/plant is installed;
  - no riding on the rear or the side of trucks and plant; and
  - people required to work at height have been provided with adequate information, instruction and training for the work being performed.
- 
- Anchorage points and fall injury prevention systems**
- Anchorage and fall injury prevention system are of an appropriate design. The fall injury prevention system and anchorage points must be designed, manufactured, constructed, selected or installed so as to be capable of withstanding the force applied to them as a result of a person's fall.
  - An inspection regime is in place for each component of the fall injury prevention system and means of attachment (eg harnesses, safety belts, shock absorbers, lanyards, inertia reels) to an anchorage point.
  - If any signs of wear or weakness are found during the inspection, the components or means of attachment are withdrawn from use until they are replaced with properly functioning components.
  - Permanently fixed anchorage points are checked by a competent person in accordance with the manufacturer's instructions. If these are not available, anchorage points should be checked by a competent person at least every six months if in regular use or if not regularly used before it is used.
-

## Electricity



Power tools are RCD protected



Electrical installations are maintained



Use molded or transparent plugs



Flexible cords and extension cords are used safely

- 
- Electrical installations
- Electrical installations are maintained, protected and tested to minimise the risk of electric shock or fire.
  - Evidence of maintenance and testing is in place.
  - Components on the switchboard are clearly labelled.
  - Switchboard is free from obstructions.

- 
- Residual current devices
- Hand held portable equipment is protected by RCD.
  - Switchboard or fixed sockets marked whether RCD protected.
  - Testing program in place.

- 
- Cord, connections, plugs and sockets
- Flexible cords and extension cords are used in a safe manner.
  - Connections have either a moulded or transparent plug.
  - Plugs, sockets and extension leads are in a good condition and protected from damage.

- 
- Electrical installations are protected from damage that would increase the risk of electrical shock or fire – check suitability and protection of switchboards, light fittings, and power points.

- 
- Procedures are in place for work in the vicinity of underground services and overhead power lines

- 
- The use of any plant does not expose workers to the risk of electrical injury or electrocution.
-

## Guarding of plant



Adequate guarding is in place



Pre operational checklists are used



Lockout tag out procedures in place



Presence sensor provide warning when muted



Provide training on safety features

- 
- Every dangerous part of fixed, mobile or hand held powered plant (machinery) securely fenced or guarded in accordance with Regulations 4.37 and 4.29, except where the plant is so positioned or constructed that it is as safe as it would be if fenced or guarded.
- 
- Adequate safe work procedures provided and documented to set, test and use machinery during all cycles of production and maintenance. Look for:
- pre-operational checks;
  - appropriate isolation and lock-out procedures provided for maintenance;
  - where setting, testing and start-up of machinery is required with the final means of safeguarding removed, interim safeguards are used;
  - where fixed physical guards are provided, adequate provision is made for cleaning, maintenance, adjustment and repair;
  - presence sensing system:
    - safe system of work documented and a clearly identified warning provided when guard is muted; and
    - inspection and maintenance records maintained;
  - the highest level of guarding that is practicable is being provided; and
  - where it is not practicable to guard machinery, a safe system of work is in place for persons operating or passing in close proximity
- 
- Operators and maintenance personnel are properly trained and familiar with the operation and set up of the machinery, including safety features.
- 
- Manufacturers decals, manuals and operator instructions are readily available and are in English and if required in other languages spoken at the workplace.
- 
- In relation to plant each hazard has been identified:
- from the design, manufacture, erection, installation or use of plant;
  - before and during the introduction of plant at the workplace
-



## Isolation of plant



Lockout tag out procedures in place



Identify all sources of energy and isolate



Out of service tags have been fixed to plant



Provide training and information to relevant workers

**This checklist applies where any inspection, cleaning, repair, maintenance or alteration of plant is carried out or where the function or condition of plant is impaired to the extent that it presents an immediate risk to safety**

- If access to plant is required for the work described above, the employer must:
  1. identify all relevant items of plant;
  2. identify all hazards associated with each item of plant;
  3. identify energy sources for each item of plant, including multiple energy sources such as electrical, fluids under pressure, fuels and any other potential energy sources;
  4. authorise one or more employees, for instance a plant operator, supervisor, maintenance person, who must if it is practicable to do so:
    - o stop the plant, before the above work is carried out;
    - o ensure that risks associated with identified hazards are reduced; and
    - o ensure the procedure for isolation/lock-out tag-out below is followed.

---

- The employee(s) authorised by the employer must ensure that the isolation/ lock-out tag-out procedure below is followed:
  1. the plant is stopped/shut down;
  2. all energy sources are de-energised;
  3. all energy sources are isolated using an isolation device and locked out using a lock-out device
    - o all common lock-out points have been identified to ensure energy cannot be restored while someone is still working on the plant; and
    - o if more than one person carries out the work, consider a multiple lock system so that each person can attach their own 'personal' lock to prevent the plant is operated before all locks have been removed;
  4. an out of service tag is fixed to the plant;
  5. danger tags are fixed at the energy sources and the operating controls of the plant;
  6. all other potential hazards are controlled;
  7. before any work is carried out, the plant is tested by trying to re-activate the plant, without exposing the tester or others to a risk;
  8. the work is carried out on the plant; and
  9. once the work is completed, the workers who tagged the controls remove the locks and tags before the plant is returned to operational status.

---

- The procedure above is always used.

---

- If it is not practicable for the employee(s) authorised by the employer to carry out all matters in the above procedure, the employer must:
  1. ensure a written procedure, such as a permit to work system, is developed by a competent person that deal with the hazards and energy sources;
  2. provide the procedures to the employee(s) authorised by the employer; and
  3. ensure the procedures are followed by all workers carrying out the work.

---

- If access to plant is required for the above work and it is not practicable to stop the plant, the employer must:
  1. ensure the plant is fitted with operating controls that allow controlled movement of the plant;
  2. provide written procedures to be followed; and
  3. ensure that persons working on the plant carry out the work in accordance with the procedures.

---

- Isolation switches are installed on the wall or on the item of plant.  
If items of plant are hard-wired or where there are no isolation points:
  1. the appropriate circuit on the switchboard is de-energised and locked out with a lock-out device; or
  2. the appropriate circuit is de-energised and switchboard cover is locked with a lock-out device.

---

- All relevant employees and contractors have been provided with information and training in relation to the isolation/lock-out tag-out procedure

## Mobile plant and vehicle movement



Plant is well maintained



Prestart checklists are used



High risk work licences are held



Seat belts are worn



Manage the movement of traffic

- 
- Mobile plant and vehicles are adequately maintained in accordance with the manufacturer's instructions. If the manufacturer's instructions are not available, maintenance is carried out in accordance with procedures developed by a competent person.  
Log books and maintenance records are in place.
- 
- Mobile plant and vehicles are kept in a safe condition – for instance the seat is maintained, seatbelt is available, load chart is in place, operator manual or instructions are available, controls are labelled, dangerous parts are guarded, the plant is registered if required, if required roll over protective structure (ROPS) or falling object protective structure (FOPS) is in place.
- 
- Pre-start checks are conducted and logbooks/records are kept of pre-start checks and maintenance. Maintenance records of forklifts, vehicle hoists, mobile cranes, bridge cranes >10 tonnes and presence sending safeguarding systems are kept and accessible at all reasonable times.
- 
- Training and licences:
- employees driving vehicles hold appropriate driving licences;
  - operators of mobile plant are adequately trained; and
  - where applicable, employees hold High Risk Work Licence, for instance for forklifts, dogging, rigging, boom type elevated work platform >11 metres.
- 
- Items, including waste, (empty) gas cylinders are adequately restrained while being moved and the contents cannot leak
- 
- Movement and speed of vehicles and mobile plant is managed to minimise the risk of collision or crush injury to pedestrians and persons operating vehicles, including:
- loading and unloading areas are adequate, ie surfaces are in good condition, ramps are maintained;
  - pedestrians are segregated from areas where there is vehicle movement or areas where vehicles are being loaded or unloaded;
  - where applicable, pedestrian walkways and/or adequate signage is installed, eg speed limits, vehicles in use, no unauthorised entry;
  - personal protective equipment (PPE) is provided where required; and
  - persons working in vehicle movement areas are wearing PPE such as hi-visibility vests or clothing.
- 
- Where mobile plant is used, site hazards such as ramps, slopes, rough ground, power lines, excavations, ground load limits, underground services are identified, assessed and controlled.
- 
- Adequate control measures are in place such as procedures and means of communication
-

## Hazardous substances



Keep a register of hazardous substances



Decanted containers are labelled



Risk assessment has been undertaken



Provide training



PPE is provided if other controls are exhausted

- 
- Register of hazardous substances**
- A register of hazardous substances is available and accessible for persons likely to be exposed to hazardous substances.
  - The register of hazardous substances is complete – the register includes a contents list and current Safety Data Sheets (SDS) (also known as Material Safety Data Sheets [MSDS]).
  - The register of hazardous substances is current – SDS (also known as MSDS) are not older than 5 years.
- 
- Labelling**
- Hazardous substances are properly labelled – eg containers are labelled with manufacturers labels that are complete and legible.
  - Decanted chemicals are labelled with name, risk and safety phrases.
  - Empty food or beverage bottles are not used to store chemicals.
- 
- Risk assessment and control**
- Risk assessments have been completed for all hazardous substances.– *when conducting a risk assessment, consider how the substances is used, where it is stored, is ventilation required, are directions in the SDS (also known as MSDS) followed, what personal protective equipment is required.*
  - A record is made in the hazardous substances register that the assessment has been done.
  - A risk assessment report is available where the risk is significant.
  - Practical control measures have been implemented and maintained taking into account the hierarchy of control.
- 
- Information, instruction and training**
- Workers who may be exposed or work with hazardous substances have been provided with adequate information and training, including health effects, controls, safe work methods, personal protective equipment and where applicable health surveillance.
  - A record of the hazardous substances training is kept.
-

## Violence and aggression



Violence and aggression risk assessment been undertaken



Systems are in place to respond/recover from violence and aggression



Provide training and information



Systems are in place to report hazards

- 
- Violence and aggression risk assessment has been undertaken in consultation with employees.
- 
- Adequate control measures and systems have been implemented to prevent violence and aggression.
- 
- Systems are in place to respond to violence and aggression such as an emergency or critical incident response plan.
- 
- Systems are in place to recover from violence and aggression, including hot and cold debriefs and evaluation.
- 
- Information and training has been provided to all relevant employees in relation to:
- adequate control measures and systems to prevent violence and aggression;
  - systems to respond to violence and aggression, including the emergency or critical incident response plan; and
  - violence and aggression reporting systems.
- 
- Systems are in place to report hazards, injuries or incidents of violence and aggression.
- 
- Reported hazards, injuries and incidents in relation to violence and aggression:
- have been adequately investigated;
  - action the employer intends to take has been determined (if any)
  - the employee who reported the hazard/injury has been notified of the determination.
-

## Pressure vessels



Pressure vessel registered with WorkSafe



Display registration



Ensure drive belts are guarded



Keep inspection records

- 
- Pressure vessels such as air receivers are registered with WorkSafe when the hazard level is A, B or C, according to the criteria set out in AS4343-2005.
- 
- Proof of registration is available at the workplace:
    - the registration number of the item of plant is legibly stamped on the item of plant; and
    - a copy of the evidence of the registration is displayed on or near the pressure vessel.
- 
- Periodic inspections of the pressure vessel are carried out by a competent person as per Australian New Zealand Standard AS/NZS3788:2006.
- 
- Parts of the compressor other than the pressure vessel, are inspected, repaired and maintained in accordance to the manufacturer's procedures or procedures developed by a competent person.
- 
- Manufacturer's instructions of the compressor are available.
- 
- Log book of maintenance records is kept.
- 
- Drive belts, pulleys and moving parts of air compressors guarded.
-

## Contractor management



Provide adequate information, instruction and training



Adequate systems are in place to audit contractors



Adequate permit systems in place

- 
- Adequate information, instruction and training is provided to contractors and visitors on hazards and controls, such as buildings containing asbestos materials, evacuation procedures, hazard and injury reporting, confined spaces, roof access.

---

  - Adequate systems are in place to supervise and audit contractors to ensure that their work does not expose people to hazards, such as mobile plant hazards, falling object hazards, trip hazards.

---

  - Adequate permit systems are in place for high risk work such as hot work (refer to AS1674), work in confined spaces (AS/NZS 2865.2001), and working at heights (such as roof access).
-

## Other issues



Provide induction training and supervision



Angle grinders not to be used to cut flammable material drums



Reduce exposure to noise



PPE has been provided if hazard cannot be controlled

---

### Induction, training and supervision

- Induction and training has been provided in relation to:
  - task specific hazards;
  - safe operating procedures;
  - provision, use and maintenance of PPE;
  - hazards and injury reporting;
  - emergency and evacuation procedures;
  - fit for work procedures (eg fatigue, alcohol and drugs at work);
  - bullying, aggression and violence procedures;
- Staff capabilities are assessed and, where applicable, a training plan is developed in consultation with the employee.
- Age, experience and non-English speaking background have been taken into account.
- Adequate supervision is provided to new employees to ensure they follow instructions and safe work procedures.
- Skylarking, initiation ceremonies and bullying are not permitted.
- Risk of injury or harm to visitors is eliminated or reduced as far as is practicable, for instance visitors are accompanied at any time and are segregated from vehicles, mobile plant and machinery.

---

### Noise

- A risk assessment has been conducted.
- Where practicable, control measures have been put in place to reduce the risk of hearing loss where noise levels > 85dB(A).
- Hearing protection has been provided to workers and is used.
- Workers have received information and training in relation to noise at the workplace and the use of hearing protection.
- Workers have been instructed on the fitting, use, selecting, testing, maintenance and storage of personal hearing protection.

---

### Personal protective equipment (PPE)

- PPE has been provided, including steel capped boots, gloves, eye protection, high visibility clothing, sun protection (long sleeve shirt, trousers, hat and sunscreen), hearing protection if required and respiratory equipment if required.
  - PPE is provided without any cost to workers.
  - PPE is maintained.
  - PPE is used by employees.
  - Training has been provided in relation to the selection, instruction, fitting, use, maintenance and storage of PPE as per Australian Standard AS 2161.2-2005
-

## Other issues cont'd

---

**Working alone and remotely**

- Where employees work remotely or alone, safe systems of work are in place, for example consider weather, travelling distance, terrain, procedures in the event of vehicle breakdown or injury.
- Employees are provided with information training and supervision in relation to working alone or remotely.
- If employees are isolated from other persons, there is a means of communication which enables the employee to call for help in an emergency and a procedure is in place and training regarding regular contact with the employee.
- Communication equipment provided such as long range radio, GPS, EPIRB, is provided as required and regularly tested and maintained to ensure it is in good working condition.

---

**Workplace behaviours**

- Policies and procedures are provided for managing bullying, violence and aggression in the workplace and reporting incidents.
- Employees are provided with training and information in relation to bullying, violence and aggression in the workplace.
- Reports of bullying, violence and aggression in the workplace are thoroughly investigated.
- Bullying, violence and aggression are prevented and managed if applicable.

---

**Emergency procedures**

- Evacuation procedures and a diagram of the workplace are available, displayed and practiced.
- Emergency enable safe egress in the event of an emergency.
- Exit signs are provided and clearly visible.
- Portable fire extinguishers are provided in the workplace and in vehicles.
- Portable fire extinguishers are maintained.

---

**First aid**

- Adequate first aid facilities (ie first aid kit, eye wash station, emergency shower) are provided.
- Adequate number of persons trained in first aid is provided.

---

Adequate workplace facilities are provided.

---

Clean cool drinking water is provided and is readily available.

---

Skin protection for outdoor workers is provided (eg long sleeve pants and shirts, sunscreen, hats, shade).

---

Work areas are monitored for cleanliness and removal of debris/waste.

---

Warning signs are provided.

---

Adequate seating is provided.

---

Gas cylinders are secured.

---

Flash back arrestors are fitted (oxy-acetylene or oxy-LPG).

---

Welding screens are provided and are in good condition.

---

Smoking is not permitted in the enclosed workplace or in vehicles.

---

A23621264