OSH in scrap metal

Introduction

WorkSafe is currently conducting an inspection campaign in the scrap metal industry with a view to increase awareness of safety issues faced by your industry and to highlight the importance of appropriate systems of work and safety management systems. The campaign will involve inspectors visiting workplaces to identify any common safety risks and provide employers with information on how to comply with occupational safety and health requirements. Please take the time to read the relevant parts of this publication and use the checklists to assist you in improving safety in your organisation.

What issues are we looking at?

A checklist has been developed which may assist you assess your workplace prior to being visited by an inspector. The checklist is included in this publication and covers the following areas:

- Manual tasks
- Working from height
- Slips, trips and falls
- Machine guarding
- Air receivers
- Mobile plant

- Electricity
- Noise
- Hazardous substances
- OSH management and consultants
- New and young workers
- Personal protective equipment
- Metal cutting guillotine safety checks

How do I use these checklists?

- 1. Use the checklists in this newsletter to inspect your workplace. You may see other hazards as you are going through add them to the checklist.
- 2. Anything that you have ticked 'No' or added to the list needs to be fixed. So, look at each hazard using the table below to prioritise identified hazards.

Risk rating table – for working out level of risk Use the vertical and horizontal columns to consider both the likelihood of injury or harm to health and the consequences to work out the level of risk

Likelihood of injury						
or harm to health	Insignificant eg no injuries	Moderate eg first aid Major eg extensive injuries Catastrophic eg dea				
Very likely	High	Extreme	Extreme	Extreme		
Likely	Moderate	High	Extreme	Extreme		
Moderate	Low	High	Extreme	Extreme		
Unlikely	Low	Moderate	High	Extreme		
Highly unlikely (rare)	Low	Moderate	High	High		

Risk assessment is a 'best estimate' on the basis of available information. It is important the responsible person undertaking a risk assessment has the necessary information, knowledge and experience of the work environment and work process, or such a person is involved.

3. If the hazard falls into 'high' or 'extreme', based on your view of how likely it is someone will get hurt and what level of injury could happen, then you need to fix it straight away.

If it is lower down in the table - moderate or low - then plan when you will fix it.

Remember hazards have to be controlled – you can't ignore them. www.worksafe.wa.gov.au

How are people getting hurt in your industry

In the scrap metal recycling and waste collection industries, the most common causes of injury are:

- muscular stress while handling objects other than lifting;
- falls on the same level;
- falls from heights;
- being hit by moving objects; and
- muscular stress while lifting, carrying and putting down objects.

The most common location of injury is the lower back, followed by shoulders, knees, ankles and hands.

The occupations that recorded most injuries are truck drivers followed by recycling and rubbish collectors.

Work activities that result in injuries are diverse and relate to trucks, bins and containers, loading plant, traffic and ground surfaces.



Machine SAFETY

Machine guarding

Employers, manufacturers, designers and suppliers of machinery and equipment are legally required to make sure dangerous parts are safely guarded so that operators and others are protected from injury.

A guard may be any shield, cover, casing, physical or electronic barrier intended to prevent contact between a hazardous machine part and any part of a person or a person's clothing.

Control the risk

Old machinery is sometimes poorly guarded. Hazard areas may include extra moving parts like shafts, sprockets and pulleys that have been added for other uses. Original guarding may have also been removed for maintenance and not put back. There may be times when an operator may need to reach over, under, around or into a machine while it is running. If so, any moving parts or other hazards must be appropriately guarded from human contact.

Some of the hazards associated with machinery and likely to cause injury include:

- Any pulley or flywheel that incorporates openings, spokes or protrusions, etc. that renders it anything except totally smooth.
- Any crushing or shearing points, such as roller feeds and conveyor belts.
- Rotating shafts, for example joints, couplings, shaft ends and crank shafts.
- Gearing, including friction roller mechanisms, cables, sprockets, chains, clutches, cams or fan blades.
- Keyways, keys, grease nipples, set-screws, bolts or any other projections on rotating parts.
- Rotating knives, blades, tines or similar parts of power driven machines that operate in or near the ground.
- Any machine component that cuts, grinds, pulps, crushes, breaks or pulverises.
- Hot parts of any machine.
- Machinery being accidentally started during maintenance (for more information see guidance note Isolation of plant.)

The Commission for Occupational Safety and Health has released a code of practice for safeguarding of machinery. This publication is available on the WorkSafe's website www.worksafe.wa.gov.au

Lock-out and tagging

Locking out of equipment or machinery is the most effective way of preventing it becoming operational during maintenance. Its effectiveness lies in the 'one key per lock, one lock per person' procedure.

If there is only one key per lock, the key has to be with the person carrying out the maintenance. Where more than one person is working on equipment or machinery a multi-lock system should be followed, ensuring that each person has attached a 'personal' lock to the equipment or machine's multi-lock switch.

All workplaces must have a system unless the equipment or machinery is fully inoperative and then disconnected from the energy source.

Essentially, there are two types of tag, the 'DANGER' tag and the 'OUT OF SERVICE' tag.

Australian Standard 1318 - 1985 recommends specific colours for the marking of physical hazards and the identification of certain equipment in industry. Colours used are red, yellow, green and blue.

- **RED AND WHITE**: Signifies danger and prohibition, fire protection equipment, stop buttons for electrical switches and emergency stop controls for machinery.
- YELLOW AND BLACK: Signifies caution: draws attention to such hazards as unfastened or removed machinery guards.
- GREEN AND WHITE: Denotes safety and location of safety or first aid equipment.
- BLUE AND WHITE: Is for information signs where there is no specific hazard.

Are isolating switches provided, and are lock-out and tagging procedures used during maintenance work on machinery such that:

- isolation switches are switched off?
- switches are locked out and tagged to inform others that maintenance work is being
- the only key to the lock is in the possession of the person carrying out the maintenance?

The Commission for Occupational Safety and Health has released a guidance note: Isolation of plant. This publication is available on the WorkSafe's website www.worksafe.wa.gov.au



Box Box

Guidance note

Isolation of plant

Manual TASKS

Workplace injuries most commonly linked to manual tasks include sprains and strains, hernias and damage to the back. Such injuries are a major cause of lost time at work and are the most common cause of injury in the scrap metal recycling and waste collection industries.

Manual tasks is more than just keeping your back straight and knees bent, or lifting properly – it involves safely carrying, pushing and pulling, and holding or restraining. Just as manual tasks involve more than just lifting, the things that affect the risk of injury involve more than just the weight of the objects handled. Factors such as repetitive and/or forceful movements, awkward movements or postures are also very important.

Injuries can be the result of:

- gradual wear and tear e.g. from frequent or prolonged activities, or
- sudden damage e.g. from a single lift of something very heavy or awkward to handle or from tripping and falling while carrying an object.

Strain injuries may occur when:

- the load is lifted from the floor, or from below mid-thigh height;
- reaching above shoulder height to either access items or work for any length of time in this position;
- there is too much twisting and bending;
- excessive forward reaching is required;
- items such as machine parts are too heavy when other risk factors, such as:
 - the number of times things are moved or the distance moved, are taken into account; and
 - o the items being moved are awkward to grasp due to their size and shape.

How do I reduce the risk of injury from manual tasks? The first step, in consultation with your workers, is to identify the manual task hazards in your workplace. First step Manual task hazards can be identified by: reviewing hazard/injury reports; consulting with workers and safety and health representatives; and by observing tasks being performed. Next, in consultation with staff, complete a risk assessment for each task to determine which risk factors are Second present and identify the level of risk. Risk factors may be actions and postures; forces and loads; vibration; work environment; systems of work; and worker characteristics - please refer to the WA Code of Practice Manual Tasks for more information. step Finally, for each hazard, determine what controls are needed to minimise risk. Priority should be given to implementing control measures where the level of risk is moderate, high and extreme. These controls may Ε̈́ include, training and supervision and provision of a range of equipment such as: <u>න</u> trolleys; lift tables: step castors and wheels; work stands; and forklifts; pallet lifters. hand trucks;

What is a safe weight to lift?

There is no safe weight. The risk of injury increases as the weight of the load increases.

Evaluating the risk posed by the weight of the object needs to take into account:

- how long the load is handled;
- how often the load is handled; and
- the physical characteristics of the individual.

Manual tasks-lifting

Lifting is the single most common cause of manual task related injury in Western Australia. On average, workers with injuries from manual tasks take the longest time to recover and return to work.

The weight of an object is only one of many factors to consider in avoiding injuries. Other things to take into account include: how often and how quickly a task is performed; the age and physical strength of the person; and the size and shape of the object.



Slips trips and falls

What risk factors contribute to slips and trips incidents?

Slips and trips account for 20% of all lost time injuries every year. They can result in serious injuries and lengthy periods of time off work.

Risk factors that contribute to slips and trips injuries will vary according to the type of workplace and tasks being undertaken.

Common risk factor categories include:

- floor surface and condition;
- floor contamination;
- objects on the floor;
- ability to see floor, walkways, hazards;
- · cleaning and spill containment;

- space and design;
- stairs and stepladders;
- work activities, pace and processes;
- footwear and clothing; and
- · individual characteristics.

How can I reduce the risk of slips, trips and falls in my workplace?

There are many controls that employers can use to prevent slips and trips in the workplace. Firstly though, it is important to complete hazard identification and a risk assessment in consultation with workers. This will ensure that the right control is chosen for the hazards that are relevant in the workplace.

Common controls used in workplaces can be categorised according to the hierarchy of controls:

- Eliminate the hazard remove slip or trip hazard.
- Substitution install non-slip surface on truck steps and ladders.
- Isolation restrict access to some work areas.
- Engineering controls (minimising risk by redesign) improve lighting, mark walkways and use ramps instead of steps.
- Administrative Controls ensure good housekeeping clean up spilled scrap immediately and use signs for slippery or wet floors.
- Personal Protective Equipment use adequate safety boots.

Sun SAFETY

Plant operators, outdoor workers and truck drivers are at risk of sun related injuries due to the nature of the work. Implementing a comprehensive sun protection program, which includes a range of protective measures, can prevent sun-related injuries and reduce the suffering and costs associated with skin cancer.

Skin cancer and outdoor work - A guide for employees is a valuable guide and is available from the Cancer Council website www.cancercouncilwa.asn.au



Skin cancer and outdoor work

Safe movement of vehicles at workplaces

Vehicles and mobile plant moving in and around workplaces cause far too many occupational injuries and deaths in WA.

Reversing, loading, unloading and pedestrian movements are the activities most frequently linked to accidents.

To avoid incidents, traffic and pedestrian movement needs to be designed, planned and controlled.

Here are some tips for safe movement of vehicles:

- Design traffic routes so they are wide enough for the largest vehicle using them. They should be one-way (if possible) and have clearly signed traffic instructions.
- Separate pedestrian footpaths or walkways from traffic or make traffic routes wide enough for both vehicles and pedestrians. Use pedestrian barriers to prevent people walking in front of vehicles.
- Situate loading bays where vehicles can be manoeuvred easily and protected from adverse weather
 conditions. Raised loading platforms should be fitted with rails and raised wheel stop edges on the non-loading
 sides, to prevent people, forklifts or trolleys rolling over the edge.
- Mark reversing areas so drivers and pedestrians can see them easily. To reduce reversing accidents, place fixed mirrors at blind corners.
- Start vehicles when seated in the driver's seat, ie do not start a vehicle while standing next to it.
- Ensure that people directing traffic wear high-visibility clothing and that their signals can be seen clearly.

Working at HEIGHT

Identifying working at height hazards involves recognising situations that may cause injury or harm to the health of a person, such as where a person may fall from, through or into a place or thing.

There are a number of ways to identify potential situations that may cause a fall to occur. A hazard identification process or procedure may range from a simple checklist for specific equipment, such as a ladder or fall-arrest system inspection checklist, to a more open-ended appraisal of a group of related work processes. Generally, a combination of methods will provide the most effective results.

Key things to check at your workplace

- surfaces: unstable, fragile or slippery floors (eg. wet, polished, glazed or oily surfaces); the safe
 movement of workers where surfaces change; the strength or capability to support loads; and the
 slope of work surfaces;
- levels: where levels change and workers may be exposed to a fall from one level to another when climbing into trucks;
- structures: the stability of temporary or permanent structures for accessing the top of plant;
- the ground: the evenness and stability of ground;
- the raised working area: whether it is crowded or cluttered;
- edges: edge protection for open edges of floors, working platforms, walkways, walls or roofs;
- hand grip: hand grips are available where hand grip may be lost;
- openings or holes: which will require identification or protection;
- proximity of workers to unsafe areas: where operators need to access the top of plant; where work is to be carried out above workers (e.g. potential hazards from falling objects); and where scrap is collected in the vicinity of power lines;
- fall injury prevention system: ensuring that harnesses and attachment points are checked regularly and kept in good condition;
- movement of plant or equipment: ensuring there is no sudden acceleration or deceleration;
- access to, egress from and movement around the working area: checking for obstructions;
- lighting: ensure that sufficient lighting is provided, in particular outside daylight hours;
- weather conditions: when heavy rain, dew or wind are present;
- footwear and clothing: suitability for conditions;
- ladders: where and how they are being used; and
- young, new or inexperienced workers: i.e. workers unfamiliar with a task.

Hot WORK

Hot work is grinding, welding, thermal or oxygen cutting or heating, and other related heat producing or spark-producing operations.

Before hot work is commenced in any location, ensure that:

- hazards relating to the location are identified;
- means of managing the hazards are in place;
- the cutting, welding and grinding equipment is serviceable and suitable for the task;
- the cutting, welding and grinding equipment is located so that, in the event of malfunction of the equipment, a fire or explosion hazard is not created; and
- there is no inherent hazard due to the nature of the item on which the hot work is to be performed.

For further information, refer to – Australian Standard AS1674.1-1997 Safety in welding and allied processes.

Forklift SAFETY

Is your forklift licence current?

By June 2012, all certificates of competency will need to be converted to high risk work licences. This includes scaffolders, riggers, crane and hoist operators and forklift and pressure equipment operators. All unconverted certificate holders will be required to be reassessed.

How are workers getting hurt using forklifts?

The major safety issues using forklifts are:

- co-workers/pedestrians being hit by moving forklifts or moving parts of a forklift;
- co-workers/pedestrians being trapped or caught between a moving forklift/moving parts of a forklift and stationary object;
- operators suffering muscular stress due to a combination of inappropriate seating, vibration and manual handling:
- operators falling while getting into or out of forklifts;
- collisions between forklifts and other vehicles or stationary objects;
- overloading or unsafe stacking of loads on forklift tines
- forklift is not used for towing unless the manufacturer has approved this in writing
- forklift operators and others being hit by objects falling from the forklift tines.
- the operator's body protruding from the cab and hitting an object; and
- · forklifts tipping over.

NOISE

What is a 'safe' level of noise?

One of the main effects of noise at work is noise-induced hearing loss. This can happen in two ways:

- noise of very high peak levels (more than about 135-140 decibels (dB)) can cause immediate damage to the structures of the inner ear; or
- noise of a lower level over an extended period of time can cause gradual damage.

People vary in their susceptibility to noise damage. A 'safe' level to protect the most noise-sensitive people from any hearing loss during a working lifetime, would be an average over the work shift of about 75 dB(A). For more information see Section 1.2 of the Code of practice, Managing noise at workplaces.

Noise can also contribute to other health effects such as increased blood pressure, stress and tinnitus (ringing in the ears). Safe levels to guard against these effects have not yet been determined and research is continuing. As a guide, stress can be reduced by keeping levels below 50 dB(A) in areas where people need to do work requiring concentration.

Another effect of noise is difficulty communicating and hearing warning signals or other sounds needed to work safety. A 'safe' level in these situations will vary depending on the level of the signals and the hearing capabilities of the listeners.

Why do employers have to reduce noise at the source when workers can wear hearing protectors?

The various types of hearing protectors (earmuffs, ear plugs, semi-inserts) are not the best forms of protection because they rely on individual workers being able and willing to use the equipment correctly. Failure to wear the hearing protectors correctly 100% of the time in excessive noise will significantly decrease the effective protection. Their effectiveness is also reliant on their condition and whether they fit correctly, which is particularly difficult if other protective equipment also needs to be worn. They can also fail or be inefficient without this being visibly obvious.

For all these reasons, hearing protectors are regarded as a last resort risk reduction measure, to be used only when other practicable steps to reduce excessive noise have been taken.

How can noise levels of loud machines and equipment be reduced?

Depending on the source, noise can be reduced in several ways, as follows:

- buying quiet machinery and equipment;
- maintaining machinery and equipment routinely;
- reducing machinery and equipment vibration;
- muffling engine and compressed air noise;
- isolating the noise source in an insulated room or enclosure;
- placing a barrier between the noise source and the worker; or
- isolating the worker from the source in an insulated booth or room.

Incidents

Cutting of pressure vessels

A scrap metal yard employee was using an excavator with a cutting sheer attachment to reduce the size of scrap metal. The employee used the sheer to grab metal from the scrap metal heap and picked up a portable fire extinguisher which was pressurized, cutting into the extinguisher. The top ¾ of the extinguisher has been propelled out of the yard and into a neighbouring workplace narrowly missing two employees standing in that yard.

Contributing factors

- Pressurised vessel located in the scrap metal heap.
- No system in place to ensure customers do not place pressure vessels into scrap metal.
- No system in place at the workplace to adequately check incoming scrap metal for pressure vessels.
- Operator of plant not checking the scrap metal heap prior to commencing cutting task.

Action required

- 1. Do not cut or crush pressure vessels.
- 2. Develop systems of work to ensure pressure vessels do not make their way into scrap metal from customers.
- 3. Ensure checks are completed on incoming scrap metal for pressure vessels.
- 4. Operator to check the scrap metal heap prior to commencing cutting or crushing duties.

Cutting or heating metal tanks

Recently a worker died when a 4500 litre fuel tank he was cutting with an angle grinder exploded. The tank had been stored in the ground for a number of years and had recently been removed for disposal. The employee was cutting the fuel tank to ready it for transport. Sparks or heat from the angle grinder may have ignited residual vapours in the tank, which then exploded.

Contributing factors

- The fuel tank may have previously contained a highly flammable liquid and possible chemical residue.
- Angle grinders produce ignition sources such as heat and sparks.
- There was no labelling on the tank to indicate the type of fuel that had been stored, nor information that it had been purged, cleaned and de-gassed appropriately.

Action required

- 1. Do not use angle grinders or any other heat-producing equipment such as oxy /acetylene to cut metal tanks or drums that have or may have contained flammable or combustible liquids or flammable gases.
- 2. Where there is any doubt about the previous contents of a tank or drum, have the contents tested for chemical makeup.
- 3. Make sure tanks and drums that have or may have contained flammable or combustible liquids or flammable gases or containers with unknown contents are recycled by a competent person/specialist cleaning company.
- 4. Have Material Safety Data Sheets (MSDS) available for all hazardous substances at the workplace and provide this information to all employees who are likely to be exposed to these substances.
- 5. Provide adequate training and instruction to ensure that employees understand the MSDS information, especially employees who have limited understanding of English.
- 6. Treat all tanks and drums as hazardous or having contained an explosive substance or vapour.

Vehicles hitting or crushing workers

There have recently been fatal and serious incidents in Western Australia in which a driver has reached into a vehicle from the outside to start the engine.

The purpose of this alert is to raise awareness of the risks associated with starting and parking vehicles when an operator is not in full control of the vehicle.

Contributing factors

Some of the contributing factors related to these incidents include:

- Failing to adequately secure or immobilise the vehicle, such as not applying the handbrake at the time of parking.
- Leaving the vehicle in gear when starting.
- Drivers starting vehicles from outside the cab.
- · Lack of consideration given to nearby vehicles or pedestrians in the vicinity during parking.

Action required

- 1. Employers should consider implementing safe systems for start-up and parking of vehicles.
- 2. When parking a vehicle, persons need to ensure that the engine is turned off, the key is removed and the parking brake is fully engaged.
- 3. The vehicle should not be left in gear when starting.
- 4. Vehicles should not be started from outside the cab.
- Employers conduct risk assessments to identify all risks associated with the use of workplace vehicles e.g. driving, parking and loading/unloading.
- 6. Employers consider measures such as park brake alarms and ignition interlock devices for work vehicles.

Employee injured when fork tine carriage falls off forklift

An employee received numerous injuries when he was hit by a fork tine carriage which fell off a forklift. The forklift was being used to close a workshop sliding door that had come off its roller guide track.

Two employees were closing the workshop doors at the end of the day when one of the sliding doors came off its roller guide track. Another person came to assist them to lift the sliding door end back onto the guide track by hand, but it was too heavy. A forklift was then used to lift the door back onto its track. During the process the side shift function was used to move the sliding door back into position. An employee pushing the sliding door from the inside was hit by the falling fork tine carriage when it came away from the forklift.

Contributing factors

- The sliding door was difficult to move, was in need of repair and had been so for some time.
- The forklift side shift function was used outside its intended use and not in accordance with Australian Standard AS 2359.2-1985 Industrial trucks Operation while an employee was in the vicinity of the raised tines.

Recommendations

- 1. Items of plant should be used only in accordance with manufacturer's recommendations and in accordance with guidance contained in operations manuals.
- 2. Forklift operators should operate forklifts and other mobile plant in accordance with training received for plant requiring high risk operator's licences.
- 3. Employers should ensure they are aware of specific information on the capabilities and limitations of items of plant and ensure that that information is provided to employees.
- 4. Action to repair any item of faulty equipment in a workplace should be a maintenance priority.

Reporting an INJURY

All deaths and certain types of injury or disease, in connection with work, must be reported to WorkSafe. Failure to report could lead to prosecution. Reporting must be done by the relevant employer whenever death or certain types of injury occurs in connection with the relevant employer's business. Relevant employers may include the self-employed, principal contractors, labour hire agents and directors. In some cases, WorkSafe will require notification of the same reportable death, injury or disease by different 'relevant employers'. For example, if a manufacturer hired a self-employed contractor whose work caused a reportable injury at the manufacturer's workplace, a report would be required from both the manufacturer and the self-employed person.

Reporting is required for:

- employees who suffer death/injury/disease at work or at employer provided residential premises as described under section 23G(2) of the Act;
- non-employees who suffer death/injury/disease at a workplace or in connection with the business of an employer or a self-employed person; and
- self-employed people, who suffer death/injury/disease at work or in connection with work.

Types of injuries that must be reported:

- A fracture of the skull, spine or pelvis.
- A fracture of any bone in the arm, other than in the wrists or hand, or in the leg, other than a bone in the ankle or foot.
- An amputation of an arm, a hand, finger, finger joint, leg, foot, toe or toe joint.
- The loss of sight of an eye.
- Any injury other than those referred to above which, in the opinion of a medical practitioner, is likely to prevent the employee from being able to work within 10 days of the day on which the injury occurred.

How to report an injury to WorkSafe

Notification will be accepted either in person, in writing, by fax, by telephone or email. You can download copies of the forms from the WorkSafe website: www.worksafe.wa.gov.au

Further reading

Codes of practice

- Manual tasks
- Prevention of falls at workplaces
- Fatigue management for commercial vehicle drivers
- Working hours
- First aid-workplace amenities-personal protective clothing
- Managing noise at workplaces
- Safeguarding of machinery and plant
- Health and safety in welding-Tech note 7 Welding Technology Institute of Australia

Guidance notes

- Alcohol and other drugs at the workplace
- General duty of care in WA workplaces

- Isolation of plant
- Plant in the workplace
- Powered mobile plant
- Preparing for emergency evacuations
- Safe movement of vehicles

Other publications

- Staying alert at the wheel
- Safety tips for new and young workers and their employers
- AS1674-1997 Safety in Welding and Allied Processes

Manual tasks safety checklist

Check	yes	no	n/a
In consultation with workers, all hazards in relation to manual tasks have been identified.			
Risk assessments of hazardous manual tasks have been conducted. Risk factors, such as carrying, pushing, pulling, holding, restraining, etc. have been considered.			
Potentially hazardous tasks include but are not limited to, movement of batteries to/from pallets, stripping of radiators (repetition) cutting of light gauge scrap using a guillotine (repetition, awkward position), oxy/acetylene cutting (repetition/awkward position/time on task) etc manual task relating to maintenance work.			
Practicable control measures have been implemented and maintained to eliminate or reduce manual task risk after consulting workers, 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 (three points of contact available) bins on wheels, use of trolley, use of smaller vehicle limit or avoid decanting of bins implement work procedures to limit the manual handling of scrap metal appropriate mechanical aides to assist employee with task 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 – no repetitive actions over long periods of time,eg oxy/acetylene cutting adequate equipment has been provided for tasks to be carried out no lifting of heavy equipment, machinery or scrap metal no lifting of heavy equipment from one level to another level by stairs no lifting of heavy equipment from vehicles - lifting equipment is provided from vehicles no reaching over work benches and equipment sufficient rest breaks have been provided heavy items are stored at waist height, 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 & soft tissue injuries, burns, cuts, etc. 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 the Manual tasks Code of practice • the roles and responsibilities of the employers, workers and others • consultation in order to identify manual tasks, and to assess and control risks • basic function of spine, body postures, types of muscle work and principles of levers • relationship between the human body and the risk of injury • activities included in manual tasks and resulting types of injuries • risk factors and potential sources of risks • control strategies for manual tasks			
Reported manual task injuries and hazards have been investigated the investigation examined the relevant risk factors and sources of risks outcomes of the investigation have been reported to the person who reported the hazard or injury within reasonable timeframe refer to manual task investigation form on the WorkSafe website			
Further information on manual tasks is available from the WorkSafe website www.worksafe.wa.gov.au. Resources include: Code of practice – 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).			

Working from heights safety checklist

Check	yes	no	n/a
Hazard identification and risk assessment of falls has been conducted – consider risk factors to tasks such as access in and out of the trucks and plant, and	П	П	
Practicable control measures have been implemented and maintained to eliminate or reduce the risk associated with work at heights. Consider the following:			
 height of first step of truck and plant, width and tread on step, grab rails, three points of contact 			
for access to top of truck or plant use scaffold, portable platform ladder, fall-arrest system or install railing on top of trucks, plant etc.			
no riding on rear or side of trucks and plant			
Edge protection is required if a person could fall more than 2 metres from a scaffold, fixed stairs, landing, suspended slab, formwork, or false work In any other case greater than 3 metres: fall injury prevention systems (e.g. catch platform,			
scaffold, safety nets, safety mesh, or fall-arrest system) or edge protection are provided			
There is safe means of access and egress to the work being performed at heights Stairs, walkways, ladders, mechanical lifts etc. are free of obstructions			
People required to work at height have been provided with adequate information, instruction and training for the work being performed			

Slips, trips and falls safety checklist

Stips, trips and rates safety effect			
Check	yes	no	n/a
Floor or any stair or ramp has an unbroken and slip resistant surface			
Floor or any stair or ramp is free from any obstruction that may cause a person to fall (e.g. electrical leads, hoses, tools and floor mounted power boxes in walkways, etc.)			
Access to egress from workplace safe and kept free from obstructions at all times			
Safe systems are in place to ensure that the floor is free from fall hazards / obstructions			
Warning signs available and erected near spills			
Guard rails or other safeguards are provided on ramps and stairs			
Appropriate protective equipment, such as slip resistant footwear, is required			
Ramps are available in areas where height of floor levels change and trolley access is required or items are carried regularly			

Machine guarding safety checklist

Check	yes	no	n/a
Is 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?			
Are 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?			
 Presence sensing system: safe system of work documented and a clearly identified warning provided when guard is muted? 			
Presence sensing system: inspection and maintenance records maintained?			
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, have interim safeguards been provided?			
 Where fixed physical guards are provided is adequate provision made for cleaning, maintenance, adjustment and repair? 			
 Where it is not practicable to guard machinery is a safe system of work in place for persons operating or passing in close proximity? 			
Are operators and maintenance personnel properly trained, familiar with the operation and set up of the machinery and able to demonstrate safety features?			
Are manufacturers decals, manuals and operator instructions readily available and in the English language?			
Is the highest level of guarding that is practicable being provided?			

Air receivers safety checklist

Check	yes	no	n/a
Pressure Vessels / Air Receivers			
Air receiver is registered if the hazard level is A, B or C.			
Registration number of the item of plant is legible on plant.			
Copy of evidence of the registration is displayed on or near the item of plant.			
Compressor drive belt is guarded			

Mobile plant safety checklist

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Check	yes	no	n/a
Mobile plant is maintained to minimise risks – 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			
Employees are trained in the use of mobile plant – where applicable, employees hold high risk work licences eg forklift, boom type elevated work platform over (11 metres)			
The plant is in a safe condition – for instance seat is maintained, seatbelt is in place, load chart is in place as required, operator manual is available, controls are labelled, dangerous parts are guarded, plant is registered if required, FOPS/ROPS are in place if required			
The work is organised in such manner that employees are not exposed to hazards related to mobile plant – for instance, pedestrian walkways, traffic management/signage, high visibility clothing, two-way communication as required, FOPS/ROPS are in place			
The work is organised in such manner that employees are not exposed to hazards related to mobile plant – for instance, pedestrian walkways, traffic management/signage, high visibility clothing, two-way communication as required is in place			
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			

Electricity safety checklist

Check	yes	no	n/a
Work in the vicinity of overhead power lines			
Work in the vicinity of power lines and plant must be controlled – ensure designated pick-ups are clear of overhead power lines, consider place of bins, type of collection truck, placing stickers on bins to remind operators of the vicinity of overhead power lines			
Electrical installations			
The work is organised for the safety of workers and others in the workplace – consider electrical safety of workshop, cleaning bays, etc.			
Electrical installations are installed, constructed, maintained, protected (cover on switchboard) and tested to minimise the risk of electric shock or fire			
Evidence of maintenance and testing of electrical installations is available			
Components on switchboard are clearly marked			
Switchboards are kept free from obstructions			
Residual Current Devices (RCDs)			
Hand held or portable equipment is protected by RCDs installed at the switchboard or into a fixed socket			
Switchboards or fixed sockets have signage to indicate they are RCD protected			
A RCD maintenance program is in place			
Flexible cords, plugs, sockets and extension leads		П	П
Flexible cords and extension cords are used in a safe manner			
Plugs, sockets and extension leads are in good condition and protected from damage			

Noise safety checklist

Check	yes	no	n/a
Noise: Control measures in place / avoid noise above exposure standard.			
Provision of personal hearing protection (PHP).			

Hazardous substances safety checklist

Check	yes	no	n/a
Asbestos waste and asbestos containing materials	П	П	
Employees have been trained in recognising asbestos waste materials			
Any asbestos waste material is disposed of in accordance with Part 11 of the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]			
The presence and location of asbestos at the workplace (depot) has been identified			
Where asbestos has been identified, an assessment of risks has been conducted in accordance with the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018 (2005)]			
Asbestos register is available and used at the workplace where asbestos has been identified			
Where an asbestos register is present at the workplace, relevant persons have received information and training on the contents and use of the asbestos register			
Register of hazardous substances			
A register of hazardous substances is available and accessible for workers likely to be exposed to hazardous substances at the workplace			
The register of hazardous substances is complete – the register includes a contents list and current Material Safety Data Sheets (MSDS)			
The register of hazardous substances is current – MSDS are not older than 5 years			
Labelling			
Hazardous substances are properly labelled – e.g. containers are labelled with manufacturers labels that are complete and legible			
Chemicals decanted into other containers 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 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, instruction and training			
A record of the training is kept and includes health effects, controls, safe work methods, personal protective equipment and where applicable health surveillance			

OSH management and consultants safety checklist

Check	yes	no	n/a
Safety and Health Representatives elected, as per Act.			
Safety and Health Representatives trained, as per Act.			
OSH Committee in place.			
Adequate consultation with employees and S&H Reps on OSH matters.			
Systems for managing OSH? (eg. proactive inspections/hazard identification).			
Any hazards or injuries/harm to health reported? If so, have they been investigated.			
Have notifiable injuries been reported to WorkSafe.			
Adequate induction and training relating to hazards in the workplace in place.			

New and young workers safety checklist

Check	yes	no	n/a
Information, instruction and training on hazards at the workplace has been provided to new and young workers			
Staff capabilities are assessed and where applicable a training plan is developed and agreed by both parties			
Information, instruction and training in emergency and evacuation procedures has been provided			
Information and training in hazard and accident reporting has been provided			
Information, instruction and training on the prevention of drugs and alcohol use at the workplace has been provided			
Information, instruction and training on the prevention of bullying and violence at the workplace has been provided			
Information, instruction and training in the use, maintenance and storage of personal protective equipment has been provided			
Trainees and apprentices are under constant supervision			
Employers ensure the risk of injury or harm to visitors is reduced by means appropriate for the workplace and the type of work activity – e.g. visitors are accompanied in the workplace			

Personal protective equipment safety checklist

•		-	
Check	yes	no	n/a
Personal protective equipment has been provided, including steel capped boots, gloves, eye protection, high visibility clothing, heatstroke and sun protection (long sleeve shirt, trousers, hat and sunscreen), hearing protection if required and respiratory equipment if required			
Personal protective equipment is provided without any cost to workers			
Training has been provided in relation to the selection, instruction, fitting, use, maintenance ,storage of personal protective equipment as per AS2161.2			

Other issues safety checklist

Check	yes	no	n/a
Have notifiable accidents been notified to WorkSafe			
Have LTI/LTD accidents and notified hazards been investigated.			
Have employees received induction and on the job training.			
Safe egress in event of emergency / exit signs provided.			
Portable fire extinguishers provided and maintained.			
Evacuation procedures & diagram available and displayed and practised and training in the use of fire extinguishers provided.			
Warning signs provided.			
Cleanliness and removal of debris.			
Seating provided and maintained.			
Workplace facilities provided.			
Portable ladders according to AS 1892.1 (metal) or AS 1892.2 (wooden).			
Gas cylinders secured.			
Flash back arrestors are fitted (oxy-acetylene or oxy-LPG).			
PPE provided where necessary.			
Instruction, information, maintenance, storage of PPE, signs.			
First Aid box or facilities available and first aid trained person available.			
No smoking in enclosed workplaces.			
Location of any asbestos on site is identified and the risk assessed.			
Vehicles and trailers maintained in safe working condition (tyres, brakes, lights, no cracks in windscreen, jockey wheel provided where required, etc.)			

Metal cutting guillotine safety checks

The checklist below can be used for developing safe systems of work for the operation of a metal cutting guillotine.

Personal protective equipment safety checklist

Check	yes	no	n/a
Safety glasses must be worn at all times in work areas			
Safety footwear must be worn at all times in work areas			
Appropriate gloves must be worn			
Close fitting protective clothing must be worn. Tuck in uniforms, no loose clothing.			
Hearing protection is required			
Long and loose hair must be contained			

Pre operational safety checklist

Check	yes	no	n/a
Ensure fixed guards are in place to prevent hands or other parts of the body from entering the trapping space			
Guards or safety devices must never be removed or adjusted, except by an authorized person for maintenance purposes.			
Working parts should be well lubricated and free of rust and dirt.			
The area around the machine must be adequately lit and kept free of materials, which might cause slips or trips.			
Be aware of other personnel in the immediate vicinity and ensure the area is clear before using equipment.			
Familiarise yourself with and check all machine operations and controls.			
Ensure cutting table is clear of scrap and tools.			
Faulty equipment must not be used. Immediately report suspect machinery.			

Operational safety checklist

Check	yes	no	n/a
Do not attempt to cut material beyond the capacity of the machine.			
Never attempt to cut rod, strap or wire with this machine.			
Use correct lifting procedures when handling large sheets of material.			
When feeding in ensure feet are positioned to avoid contact with the foot operated lever.			
Take extreme care during the initial feeding of the workpiece into the machine.			
Ensure fingers and limbs are clear before actuating the guillotine.			
Hold material firmly to prevent inaccurate cutting due to creep.			

Housekeeping safety checklist

Check	yes	No	n/a
Remove all off cuts and place them in either in the storage rack or waste bin.			
Leave the work area in a safe, clean and tidy state.			

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