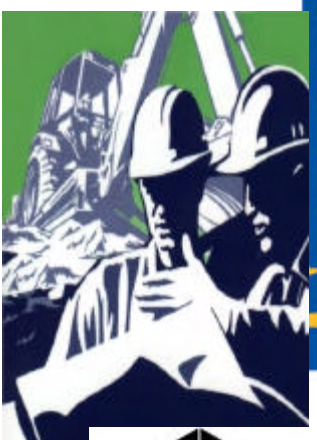
SAFER Industries

SA BUILDING & CIVIL CONSTRUCTION INDUSTRY COMMON SITE SAFETY INDUCTION COURSE POCKET BOOK



WorkCover CORPORATION

Supported by Government of South Australia

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The author gratefully acknowledges the assistance given by the members of the Building Construction and Civil Construction Industry OHS&W Committees and many other industry players.

This pocket book is not a definitive guide to government regulations, codes of practice, guidelines or procedures wholly applicable under every circumstance. The appropriate regulations, codes of practice, guidelines and procedures should be consulted.

The South Australian Construction Industry Common Site Safety Induction Handbook was developed by the Construction Industry Training Centre Incorporated.

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FOREWORD

All construction workers in the construction industry have a critical role to play in the development and maintenance of a safe working environment whilst at work.

Whether a sub-contractor, employee, contractor, engineer or building designer this booklet contains some basic information that may offer some assistance and guidance in making all workplaces a safer place to work.

This booklet highlights basic legal requirements and hazard management principles. It has been designed to address many commonly raised OHS issues and offers possible solutions through practical application of basic safety practices and requirements.

It is not intended as a replacement for legislation or site specific induction's.

For further information or clarification see the last pages of this booklet for relevant contact numbers.

INTRODUCTION

All construction workers have a part to play in making sure people are safe at work.

About 500 people die from traumatic work related injuries throughout Australia each year, with up to 600,000 suffering injuries. Annually, this costs Australia $10-$15 billion.

Up to 33 new workers are injured every day in South Australia

These figures do not include deaths associated with workplace related illness that may develop over long periods of time.

National research shows that more Australians die as a result of workplace-related injury and illness than on our roads.

Work related deaths, injuries and illnesses impact on the whole country so it is in EVERYBODY'S interest to improve health and safety performance.

SECTION 1: DUTY OF CARE

Duty of Care is the legal responsibility of everyone including:

- **Employers**
- **Employees and health and safety representatives**
- **Self-employed**
- **Designers**
- **Occupiers of buildings**
- **Owners of buildings**
- **Owners of plant**
- **Other people**
- **Manufacturers and suppliers of machinery.**

As detailed in the:

- ***Occupational Health, Safety & Welfare Act (1986)***
- ***Occupational Health, Safety & Welfare Regulations (1995)***
- ***South Australian Approved Codes of Practice (including numerous Australian Standards)***
- ***Guidelines***

1.1 EMPLOYER'S DUTIES

(Refer to Section 19 of the Act)

Every employer has a duty to each employee to ensure that as far as is reasonably practicable, the employee is, while at work, safe from injury and risk to health.

1.2 EMPLOYEE'S DUTIES

(Refer to Section 21 of the Act)

The employees must take reasonable care to protect their own health and safety and the health and safety of others who may be affected by their actions at work.

1.3 DUTIES OF VARIOUS OTHERS

The *OHS&W Act*, Sections 19-25 place duties on various people who may affect health and safety at the workplace including employers, the self-employed, owners, occupiers, employees, designers, manufacturers, suppliers, importers, erectors and installers.

1.4 CONSULTATION

The *OHS&W Act*, as outlined in Sections 33 and 34, requires the employer to consult the Health and Safety Representative and Health & Safety Committee where a change to a workplace, work process, policy or procedure may affect the health, safety or welfare of an employee at work.

1.5 THE ACT, REGULATIONS, CODES AND STANDARDS

As previously stated in this Section, the ***Occupational Health, Safety & Welfare Act (1986)*** provides the foundation to health and safety in the South Australia work-place.

The Act is supported by the ***Occupational Health Safety & Welfare Regulations (1995)***, various approved ***Codes of Practice*** & ***Australian Standards***.

- ***OHS&W Act (1986)***

Describes how to provide health and safety in South Australian workplaces and is Law.

- ***OHS&W Regulations (1995)***

Are made under the Act and set out the general principles, providing the practical steps which should be followed in order to prevent injuries and illness at work.

- ***Codes of Practice***

Give you practical guidance on how to comply with the legal requirements of specific regulations and should be used in addition to the Act & Regulations.

1.5 THE ACT, REGULATIONS, CODES AND STANDARDS (continued)

- ***Australian Standards***

Have been developed to provide minimal levels of performance or quality for a specific hazard, work process or product. If an Australian Standard is listed in the Act and/or Regulations it becomes a part of it and must be followed.

- ***Guidelines:***
  1) ***Developed by WorkCover Corporation***
  2) ***Developed by the specific industries it relates too.***

Guidelines for safe work are developed by a tripartite committee to assist with regulatory requirements. WorkCover Corporation guidelines are generic while industry guidelines are industry specific.

SECTION 2: HAZARD MANAGEMENT

A hazard is anything which has the potential to cause **harm** or **loss**.

The harm or loss may take the form of:

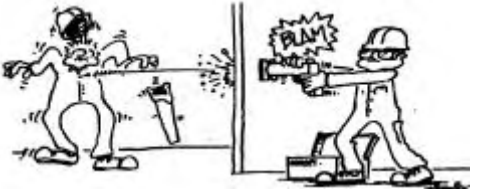
- An injury or disease
- Property damage
- Environmental harm

BRIEF

Prior to the commencement of any phase of the work process the employer and/or occupier should ensure that an investigation of the site is carried out by a person competent in all aspects of the work and a work plan/ method statement prepared and documented.

This work plan should include identification and assessment of any hazard and the control measures to be implemented to address those hazards.

All potential hazards should be identified and assessed in consultation with employees and/or their representatives.



2.1 HAZARD IDENTIFICATION

How do I identify a hazard?

A hazard may be:

- An object (i.e. dangerous goods)

OR:

- A situation (i.e. inexperienced personnel)

This includes, but is not limited to:

- **Open excavation**
- **Inhalation of dust, fibres, vapours, and gases**
- **Noise and vibration**
- **Extremes of temperature and humidity**
- **Bad housekeeping**
- **Poor access/egress**
- **Poor lighting/visibility**
- **Live power and wiring**
- **Trips and falls**
- **Working at heights**
- **Manual and mechanical handling**
- **Dangerous goods**
- **Confined spaces**
- **Fire**
- **Drugs and alcohol**
- **Hygiene**
- **Inexperience/carelessness/complacency**
- **Load shifting equipment**
- **Pedestrian and public vehicle movements**

2.1 HAZARD IDENTIFICATION (continued)

To identify hazards to health and safety:

- Check records of all injuries and/or incidents that have occurred in the workplace.

- Undertake regular inspections of the workplace using check lists or other appropriate documentation.

- Consult with employees and/or their representatives, such as the safety supervisor or safety committee, on any potential hazards.

- Refer to the *OHS&W Act, Regulations* and approved *Codes of Practice* on a regular basis.

2.2 ASSESSMENT OF RISK

Once hazards have been identified, they should be assessed in terms of their potential to do harm, both now and in the future.

When making an assessment on the possible risk to health and safety, the following should be considered:

- **The likelihood that they will do harm (Probability);**
- **The severity of the harm they could do (Consequence); and**
- **The number of times people are exposed to the hazard. (Frequency)**

The assessment of the risk is a process of gathering information in order to make a clear and educated decision on which controls need to be implemented to eliminate or minimise the risk level using all reasonably practicable measures.

2.3 RISK CONTROL

Once hazards are identified and assessed, measures to eliminate or minimise them should be determined in accordance with the hierarchy of control.

2.4 HIERARCHY OF CONTROL

1 Elimination — **Best**
2 Substitution
3 Isolation
4 Engineering
5 Administrative
6 Personal Protective Equipment — **Worst**

Control measures which make the workplace safe are likely to be more effective than measures which protect employees from a hazardous worksite.

When adopting measures to control a hazardous risk, the hierarchy should be followed when selecting the approach to be taken.

Measures from the top of the hierarchy give better results and should be adopted wherever possible.

Measures from the bottom of the hierarchy are more difficult to maintain and should be regarded as interim measures until preferred ones can be implemented.

2.4 THE HIERARCHY OF CONTROL

2.4.1 ELIMINATION

Elimination completely removes the hazard and is the ideal control solution. Examples of elimination include ceasing to use a hazardous substance and changing a process to remove the need for a hazardous action.

2.4.2 SUBSTITUTION

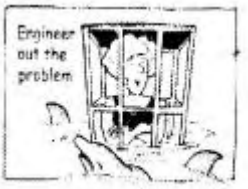
Substitution is where a hazard is replaced by a less hazardous alternative. For example, instead of using a hazardous item of plant or equipment, substitute it for a less hazardous item that serves the same purpose.

2.4.3 ISOLATION

Isolation involves separating the hazard from people by the use of physical barriers to contain/enclose the hazard or by distance and/or time. An example is using a fully automated rather than a manual process.

2.4.4 ENGINEERING CONTROL

If elimination, substitution or isolation cannot be used effectively the next preferred measure is engineering control. This can include modification of tools and equipment, guarding and local exhaust ventilation.



2.4.5 ADMINISTRATIVE CONTROL

Where an unacceptable health and safety risk still remains, administrative controls should be used.

This involves the introduction of work practices which reduce risk by limiting the exposure to the worker from the hazard.

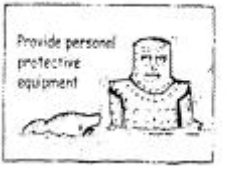
Measures include;

- Reducing the number of workers exposed
- Reducing the period of exposure
- Rotating workplace activities,
- Special procedures to be followed for the use of chemicals evacuation procedures
- Placing signs
- Effective training
- Documentation

2.4 THE HIERARCHY OF CONTROL (continued)

2.4.6 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment must be used where all other control measures have not been fully effective. Practicable efforts to remove health and safety risks using measures higher up the control hierarchy should continue.



APPLICATION OF CONTROL HIERARCHY

The employer should attempt to control the exposure of the worker to hazards by first assessing whether the most preferred control measure/elimination is possible.

If elimination is not possible, the employer should assess whether the next preferred control measure can be achieved. This process of assessing the hierarchy of control measures should continue until the first control measure that is practicable can be achieved.

2.5 HAZARD MANAGEMENT SUMMARY

1 Identify all hazards
2 Assess the levels of risk associated
3 Control the risks using control hierarchy principles

2.5 HAZARD MANAGEMENT SUMMARY (continued)

- Consult with all members of the work team
- Report all accidents and incidents no matter how small to your supervisor

Regularly review the work process to ensure all members of the work team are complying and to highlight any possible areas for improving hazard management systems.

Remember, you or others can cause a hazardous situation by any act and/or omission

Do not hide it, report it.

Through consultation with others on site the hazard can be controlled. Do not ignore it or you will be putting yourself or others at risk.

2.6 HAZARDOUS SUBSTANCES OR SITUATIONS

2.6.1 ASBESTOS

This product had many uses. It could be used as fire retardant and could be found, in the bonded form, in eaves, ceilings, wet areas, floor tiles and some glues. It can also be found, in the friable form, around hot water pipes and on structural steel. This only covers a few of the areas in which asbestos can be found and you should notify your supervisor if asbestos is found.

Do not attempt to remove any asbestos without prior knowledge or training in the procedures required.

2.6.2 SYNTHETIC MINERAL FIBRES (SMFs)

SMF is a term used to describe fibres made from glass, rock or other materials. SMF's are used for insulation purposes in the manufacture and reinforcement of cement and plaster building materials.

This is another product which can be hazardous to your health. It is a product that is quite commonly used for sound and heat insulation. If you are required to handle SMF's suitable protective clothing/equipment should be used e.g. disposable suit and half face mask. Any excess should be wrapped in plastic.

2.6.3 CHEMICALS

Before handling any chemicals, contact your supervisor who should know the hazards involved with that particular chemical through material safety data sheets (MSDS). Or, if in doubt, the chemical should be isolated until appropriate safety measures are put into place.

2.6.4 DUST

Dust is a common problem on construction sites. Processes such as excavation or demolition work are major contributors to serious dust problems. Materials such as cement or gypsum bases also create serious risk to health.

Although common they are relatively simple hazards to control.

Examples of ways to control dust include:

- Periodically dampen exposed surfaces such as roadways or slabs.
- Keep vehicle speed on site down to a practical minimum.
- To prevent encroachment monitor wind direction and speed, and modify work times and methods.
- Use of water sprays and mists will effectively control dust. (Beware of electrical hazards).
- Use wet methods for cutting concrete not friction saws.
- Clean up all sawdust and other debris promptly. Do not underestimate the potential toxicity of wood dust.
- Where there is a risk of inhaling dust always wear an approved respirator.

2.7 EXCAVATIONS AND TRENCHES

Any work around or in an excavated area or trench is extremely dangerous. Even the collapse of a small trench has the potential to take a life.

No person shall enter an excavation, pit or trench exceeding 1.5 metre in depth unless appropriate measures, such as benching, battering or shoring are taken to prevent collapse. Suitable access ladders must be used to enter all excavations or trenches. (See OHSW Regulations Division 5.5 Excavation Work)

All shoring must be installed and checked daily, by a competent and experienced employee. When working in a shored trench do not go out of the shored area – your life may depend on it.

Plant, equipment and materials, including a spoil, must not be placed or operated within 1.0 metre of the edge of excavations or trenches because this may result in a wall collapse.

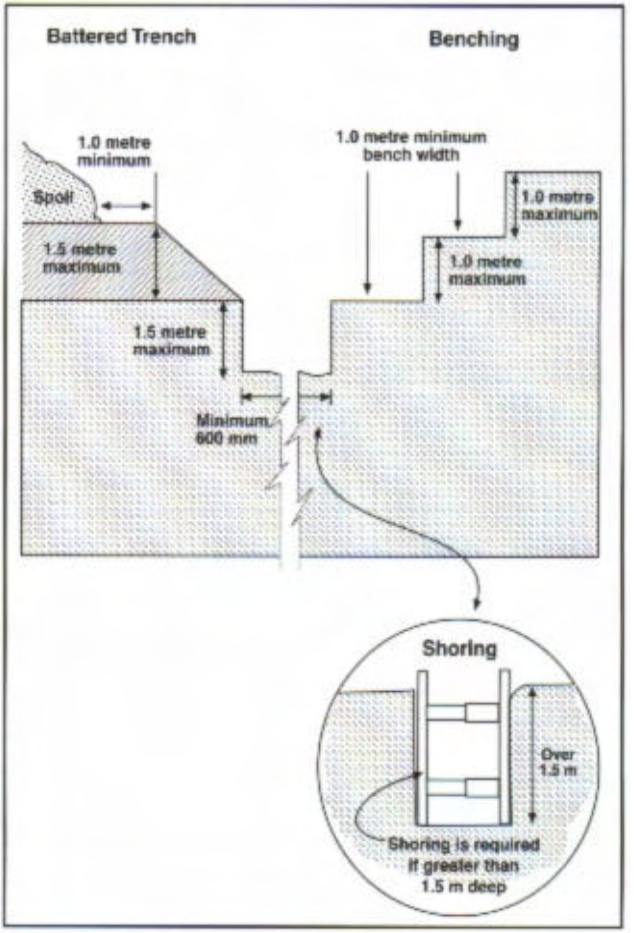
Any trenches or excavations must be barricaded or flagged off to warn people of their location and to prevent accidental or unauthorised entry. In addition, suitable signs, barricades, flashing lights etc, must be installed where there is vehicular traffic or night work.

2.7 EXCAVATION AND TRENCHES (continued)

Hard hats must be worn in all trenches and you should take note of any changes to soil condition, small slips or movements, stress cracks, increased water, etc and report these to your supervisor.

You must also report any unusual smells or evidence of hidden services such as water/gas mains, electricity or glass fibre cables – do not dig around services unless authorised to do so by your supervisor.

Trenches are usually cramped work areas so it is important to use mechanical assistance or lifting equipment whenever possible, for example, when laying pipes, moving heavy or awkward equipment.


Battered Trench
Benching
1.0 metre minimum
Spoil
1.5 metre maximum
1.5 metre maximum
Minimum 600 mm
1.0 metre minimum bench width
1.0 metre maximum
1.0 metre maximum
Shoring
Over 1.5 m
Shoring is required if greater than 1.5 m deep

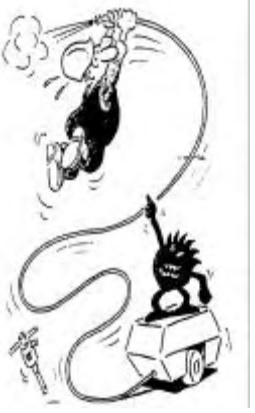
2.8 COMPRESSED AIR

Compressed air is used to run pneumatic tools like nail guns, spray painting equipment and jackhammers. If certain precautions are not taken it can be turned into a weapon – a flailing hose can hit like a hammer!

For example, when setting up a jackhammer, you must firstly check the hose for holes, cracks or wear. Ensure that both ends of the hose have clips on to stop the hose working itself loose.

Do not use compressed air to blow dust from clothing as this can cause serious injury.

Mobile compressors should be parked and run on level ground with either the wheels chocked or the park brake on. If the compressor is to be used inside or where there is not adequate ventilation, steps should be taken to remove exhaust fumes.



2.9 CONFINED SPACE

A confined space is a space of any volume which:

- Is not intended as a regular workplace;
- Has restricted means for entry and exit;
- May have inadequate ventilation and or an atmosphere which is either contaminated or oxygen-deficient; and
- Is at atmospheric pressure during occupancy.

Where a confined space, as defined above, is to be entered, the requirements of **AS2865 – *"Safety Working in a Confined Space"*** - must be complied with and includes provisions for permits to work, rescue and first aid.

2.10 ELECTRICAL EQUIPMENT & MECHANICAL PLANT

Where personnel are working on or near:

- Live electrical equipment;
- Exposed moving mechanical components, e.g. gears, drive shafts, pulleys;
- Areas where there could be a release of steam, chemicals, pressurized fluids or biological hazards;

2.10 ELECTRICAL EQUIPMENT & MECHANICAL PLANT (continued)

Consideration must be given to a shut down and tag or lock out of the system. Where required the building owner, site manager or representative should take the appropriate action to shut down the system.

2.11 HOUSEKEEPING

Housekeeping is an important component of health and safety which must be approached in a systematic manner in order to maintain a clean, safe and tidy workplace.

The workplace must be regularly inspected with any hazards identified, assessed and eliminated or controlled.

The role of housekeeping is not to patch up the problem but to find solutions.

Remember, that it is the responsibility of all parties on site to consider the safety of themselves, all other workers on-site and the safety of anyone from the general public who may enter the site unexpectedly or by invitation.

2.12 DRUGS AND ALCOHOL

Employees, sub-contractors, visitors or other persons at the worksite **must not** place themselves or others at risk because of their consumption of alcohol or drugs.

(OHS&W Act Section 21)

You

must not

commence duties at work

while in an unfit state due to alcohol or drugs.

If you are taking prescription drugs that may affect your performance at work, (some drugs can make you drowsy and prevent you from using mechanical equipment safely) inform your supervisor so that you can be given a more suitable task that does not place you or others at risk.

Further advice on handling drug and alcohol problems identified in the workplace can be obtained by contacting the ***Construction and Other Industries Drug and Alcohol Program.***

2.13 MANUAL HANDLING

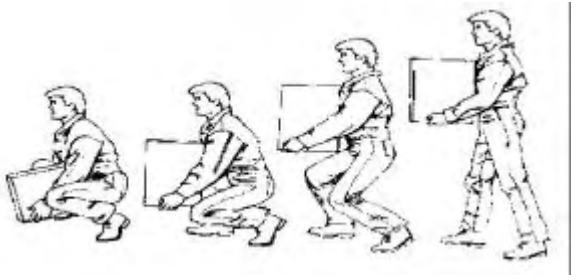
Manual handling is any work process that requires:

*	Lifting	*	Lowering
*	Pushing	*	Carrying
*	Pulling	*	Moving
*	Holding	*	Reaching
*	Bending	*	Twisting

Why should you comply with the OHS&W Act, Regulations, Codes of Practice and Australian Standards in respect of manual handling?

Each year over 10,000 South Australians suffer injuries caused through manual handling techniques including strains, sprains, ligament and joint injuries and back injuries.

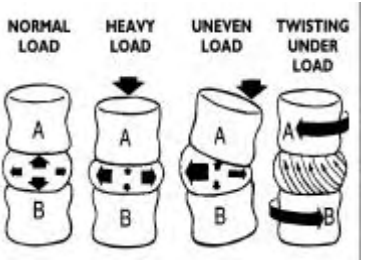
These cause unnecessary pain and hardship to workers and their families and cost the industry around $100 million a year. Most of the injuries suffered affect the shoulders, hands, back and knees. 700 of these affect the back.



2.13 MANUAL HANDLING (continued)

When lifting DO NOT

- Lift too far out from the body
- Perform jerky lifts
- Perform heavy lifts
- Twist when lifting
- Continue frequent lifting
- Over stretch



When mechanical aids cannot be used, you should use correct manual handling practices:

- Plan your lift, check the object and area.
- Use a wide, balanced stance and get as close as possible to the load
- While lifting, keep your back in its normal alignment. Use your leg muscles to assist the lift
- Pick up your feet to pivot and turn. Do not twist straight around. Move your feet as you go
- Lower the load, maintaining the normal alignment of your back, again using your legs
- Ensure a solid contact when lifting. Use your entire palm, not just your fingers
- Make sure you can see where you're going

2.13 MANUAL HANDLING (continued)

When carrying out a risk assessment consider the following risk factors;

- Job demands
- Working posture
- Repetition of work
- Workplace components
- Workstation design
- Equipment and tool design
- Weight of objects
- Range of movement
- Individual lifting capacity
- Environmental factors (lighting, vibration, wind, temperature)
- Work organisation

Do not try and lift heavy or awkward loads on your own.

Get help from someone else or use mechanical aids to help you.

When lifting with two or more people, they should be of similar height and one person should be in charge of the lift.

Remember, use the correct manual handling techniques in the workplace to avoid becoming another South Australian on the injury list.

SECTION 3: PERSONAL PROTECTIVE EQUIPMENT & SAFE USE OF PLANT & EQUIPMENT

If any working conditions give rise to a foreseeable risk to health and safety and all reasonable practicable measures have been taken to control the risk, the provision and use of personal protective equipment (PPE) or clothing becomes necessary in order to practicably minimise the risk.

The employer must ensure that appropriate equipment or clothing is provided, maintained and used and the worker is suitably trained how to use it properly.

Personal protective equipment is provided for your safety. It is your responsibility to take good care of it and wear it as directed. Advice on the selection, use and limitations of PPE can be obtained from your supervisor.

3.1 CLOTHING

Overalls and protective coveralls should be used to keep contaminants from soiling clothes and/or being transported outside the workplace.

High visibility clothing must be worn whenever there is a risk of being struck by traffic, mobile plant or loads being shifted.

Long sleeve shirts and pants may be appropriate methods for preventing excessive exposure to the sun's harmful rays and/or to prevent injury or illness from exposure to hazardous chemicals or processes.

Work clothes should be in good condition and fit the person well. Clothes that do not fit well can easily get caught in machinery or projecting objects.

Rings, bracelets and neck chains should not be worn on work sites because they can also get caught on protruding objects.

3.2 SAFETY FOOTWEAR

Appropriate footwear in accordance with Australian Standard 2210 should be worn at all times whilst on site. If the site is wet under foot, rubber boots with a steel cap should be worn.

3.3 HEAD PROTECTION

Ensure you carry a safety helmet with you at all times on building sites and use it whenever there is a risk of any debris falling from above or otherwise striking the head, regardless of whether the site is a hard hat site or not. Before entering a site, check to see if the site policy requires persons to wear a hard hat part time/fulltime. There should be signage at every entrance to the site to illustrate the requirement.

Wide brims and "legionnaires" type caps and attachments should be used to minimise the risk of sunburn to the head, neck and shoulders.

3.4 EYE PROTECTION

Appropriate eye protection must be worn if there is any risk of sustaining eye damage and when the signage on the site entrance indicates policy requirement. Ensure that the eye protection you are wearing is suited to task to be performed.

3.5 HEARING PROTECTION

In industry today one of the most common safety problems is noise. You should always ensure that you have appropriate hearing protection in the form of ear plugs or ear muffs and they must be worn when there is a risk of damaging your hearing. Failure to take precautions against excessive noise will result in part or permanent hearing loss.

3.6 GLOVES

Gloves are used to protect your hands from damage and to prevent certain hazardous substances from entering the body through the skin. They must be worn to prevent injury and illness but ensure that they themselves do not create a hazard such as getting caught on moving objects

3.7 RESPIRATORY PROTECTION

Failing to wear suitable respiratory protection is probably the biggest contributor to occupational death of workers in Australia.

Respiratory protection must be properly used in work places where there is an atmosphere contaminated with potentially hazardous dust, fibres, mists or vapours.

3.7 RESPIRATORY PROTECTION (continued)

A dust mask should be worn on construction sites where dust producing processes are being undertaken – for example; during excavation, demolition, asbestos removal, sanding gypsum compounds, handling cement or processing timber. Correct facial fit and sealing is critical to the proper use of 1/2 mask type respirators.

Handling of chemicals may require specialised respiratory equipment such as gas type cartridges or scuba

When dealing with hazardous substances such as asbestos, chemicals and glues you should speak to your supervisor or someone competent in this type of work as to which type of respiratory protection is appropriate.

Whenever possible, wet down the source of the dust but ensure you avoid any risk of water damage or electrocution through contacting live power.

3.8 HIGH VISIBILITY VESTS

High Visibility Vests should always be worn whenever there is a risk of being struck by mobile plant, traffic or other moving objects.

For Example; working near traffic, load shifting equipment or around loads being hoisted by cranes.

3.8 HIGH VISIBILITY VESTS (continued)

Make sure the correct type of vest is worn to suit lighting conditions (day, day/night and night types) and it is properly worn (done up).

PERSONAL PROTECTION

3.9 HEAT STRESS/ EXHAUSTION

It is important to recognise the effects of climatic conditions, e.g. heat stress and heat exhaustion can occur when working in excessive heat particularly in conjunction with high humidity and direct exposure to the sun.

Make sure that you drink regular and adequate quantities of water in these conditions.

Urine colour is the best indicator of dehydration.

Don't rely on thirst!

Sunburn is the most common ill effect of exposure to the sun. Continued or prolonged exposure to the sun may lead to the formation of skin cancers.

3.9 HEAT STRESS/EXHAUSTION (continued)

While you are working in an outside environment you should wear a broad brimmed hat, keep your skin covered by clothing – long trousers, sleeves should be rolled down, collars and hats that protect the skin on the back of the neck and use a broad spectrum 30+ sun screen.

3.10 FATIGUE

We are all familiar with the pain associated with physical fatigue and how it affects our ability to perform efficiently and safely.

We need to give our bodies and minds adequate rest to recover from the stresses of work, family and personal lives.

Hours of work involving long shifts and/or night work can significantly produce;

- Slowed reaction time
- Reduced attention/motivation
- Poor communication
- Decreased efficiency
- Increased variability in performance
- Decreased short term memory
- Increased risk taking behaviour

3.10 FATIGUE (continued)

Most of these factors contribute to a higher rate of injury and affect our entire well being.

You must maximise your chance to get adequate sleep and rest. Coffee, caffeine and other chemical substances are no solution.

3.11 BALANCING WORK AND RECREATION TIME

Shift work and long hours often make it difficult to balance work requirements, personal and family responsibilities.

How we prepare and recuperate from work and recreation will have a direct affect on work performance and injury rates.

We must consider the potential impacts of long work hours, family responsibilities, sport and social pastimes on the opportunity for sleep and recovery.

3.12 HAND TOOLS

Use only the correct tool for the job it was intended. All hand tools must be maintained in good repair.

Spade or shovel heads must be properly wedged on shaft handles with no splits.

Screwdriver heads must not be twisted or blunt and handles should not be cracked.

Knives must be of a type where the blade is covered when not in use and should be able to be locked in the open position.

3.13 POWER TOOLS

When using equipment like power tools, you must ensure that they are in good serviceable condition and they are fitted with safety guards.

Electrical tools & equipment must be tagged and electrically tested.

3.13 POWER TOOLS (continued)

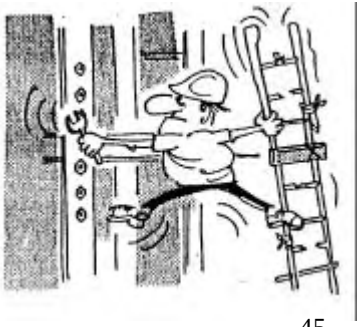
If maintenance has to be done (e.g. changing a grinder blade) make sure that the tool is unplugged. Have respect for power tools as they can quite easily cause serious bodily damage.

On completion of a job, you must inspect the tools for defect, clean and store correctly. If it is found that a tool has a defect, you should report it to your supervisor who can ensure that it gets repaired.

3.14 SAFE USE OF LADDERS

A person should always have two hands free to ascend or descend a ladder. All materials and tools which cannot be safely secured from a worker's belt should be independently transferred or hoisted to the work location.

Ladders should be secured against movement and be supported from a firm, level, non-slip surface at a ratio of 4:1 and secured top and bottom.



3.14 SAFE USE OF LADDERS (continued)

Using a ladder safely includes:

- All work undertaken from a ladder should be performed whilst the worker is facing the ladder.
- A person's feet should not be higher than 900mm from the top of the ladder.
- Always maintain 3 points of contact.
- No task should require over-reaching.
- No person on a ladder should work over another person.
- Only one person should be on a ladder at one time.
- Ladders should not be used in access areas or within the arc of swing doors.
- Work involving restricted vision or hot work (i.e. welding or oxy work) should not be performed from a ladder.
- Ladders should not be set up on scaffolds or elevated work platforms to gain extra height.
- Small, lightweight loads of tools or materials easily handled by one person only, may be raised or lowered with a hand line.
- Ladders should not be handled or used where it is possible for the ladder or the user to come in contact with electrical power lines. In particular, metal or metal reinforced ladders should not be used in the vicinity of live electrical equipment.

When using a step ladder do not use the top two steps.

3.14 SAFE USE OF LADDERS (continued)

Such ladders should be permanently marked in a prominent position with:

'DO NOT USE WHERE ELECTRICAL HAZARDS EXIST".

3.15 WORKING AT HEIGHTS

If there is a risk of injury due to a fall from a height then appropriate protection must be provided.

No matter what height!

Where work is carried out at heights other than off a ladder, consideration must be given to the following alternatives:

- Scaffolding
- Elevating work platforms
- Scissor lifts
- Cranes
- Static lines
- Edge protection
- Safe use of safety harness and lanyards

3.15 WORKING AT HEIGHTS (continued)

Handrails and kick boards must be provided for work platforms over 2 metres in height and appropriate barricades and warning signs should be set up.

Do not use handrails on hoists or scaffolds to gain extra height. You must keep your feet on the deck.

Falls from heights are the most common cause of construction industry traumatic death.

The following situations are particularly hazardous. Working near or from;

- Unprotected edges of floors or roofs
- Unguarded excavations, trenches, shafts and lift wells
- Unguarded holes, penetrations or voids
- Unstable or incomplete structures
- Fragile, brittle surfaces (for example, cement sheet and fibreglass roofs and skylights)
- Unprotected form work and demolition decks

3.15 WORKING AT HEIGHTS (continued)

Whenever there is a risk of a person falling from any height then some safe system of work must be used.

See Division 2.13 of the OHS&W Regulations – Prevention of falls.

Voids, holes, pits and suspended free edges must be suitably barricaded or securely covered to prevent persons falling from height. Kick boards must be installed as required.

Handrails must be secured at 1 metre above floor level and constructed of steel scaffold tubing, not timber.

All covers must be of sufficient strength to support any load they may be subjected to and be appropriately secured to prevent the cover from being displaced or removed.

DO NOT alter or reposition a scaffold or use a scaffold that appears incomplete, damaged, unsuitable or has a Danger or Out of Service Tag attached.

3.16 SCAFFOLDING

Scaffolding is the most common type of working platform used on site.

All scaffolds over 4 metres in height must be erected by a holder of a certificate of competency for the erection of scaffolding.

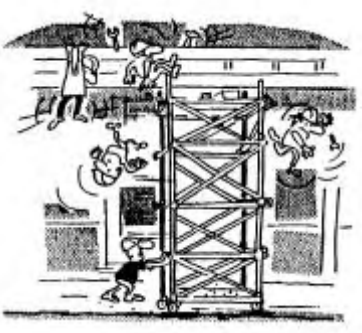
Access via internal ladders, handrails and kick boards shall be provided to all scaffolds and they must be erected on firm, level foundations.

Never use scaffold handrails to gain extra height or to support heavy equipment or heavy loads.

Care should be taken to prevent damage to scaffolding planks and components.

Planks and components should be removed and replaced by qualified scaffolders.

All working platforms must be kept clear and clean at all times.



3.17 ELECTRICAL LEADS AND WIRING

All electrical leads should be suspended off the ground in work areas so as to prevent the leads from getting cut, wet or creating a trip hazard.

Before using electrical extensions cords and portable electrical tools check to see that they are free from defects, especially plugs or leads, and are fitted with a current test tag.

Each item must be tagged with an appropriate colour tag and the test results recorded. All portable electrical equipment must be used in conjunction with a fixed or portable earth leakage circuit breaker also referred to as a Residual Current Device (RCD).

For RCD to work on a portable generator, ensure that the correct electrical wiring connection to the outlet has been made; the outlet socket, the generator and its frame have a common earth, wired by a qualified electrician.

3.17 ELECTRICAL LEADS AND WIRING (continued)

Most portable electrical equipment used on construction sites has to be inspected and tested on a regular 3 monthly basis to ensure that it complies with the OHS&W regulations Division 2.5 and Australian Standards AS 3012 and AS 3760

All electric shocks or electrical short circuits must be reported to your supervisor and are "notifiable dangerous occurrences" under Division 6.6 of the Regulations.

3.18 TRAFFIC CONTROL

Many projects are carried out on or near public roads and the risk of injury to workers and the public and damage to plant is always present.

A high visibility vest must be worn at all times. At night, the vest must be retro-reflective.

Traffic control devices must be installed and well maintained. These must conform to AS 1742.3 and only certified employees can install these devices.

Visibility and the public's ability to negotiate the roadworks safely can depend on weather conditions.

3.18 TRAFFIC CONTROL (continued)

Always secure all barricades, bollards, lights etc at the end of the shift so that they do not become dislodged and create a further hazard to the public.

Report any incident, damage, unauthorised relocation or incorrect use of the traffic control systems and damage to vehicles to your supervisor.

Workers setting up the workzone must have undertaken a Workzone Traffic Management course or similar and have current authority from Transport SA to erect traffic control devices

All lawful requirements must be met including provisions of the Road Traffic Act

Do not attempt to control traffic without appropriate authority and controls installed

3.19 WORKING NEAR SERVICES (UNDER AND ABOVE GROUND)

Before you start work at a new site check to see that all services have been identified and marked or flagged off.

Look around your work area to see if there is evidence of any type of services. You may notice poles, overhead wires, taps, gas mains, metres or evidence of previous trenching. We can not always rely on the information provided by the Service Agency, therefore you need to keep your eyes open at all times.

If you come across something that you are unsure of or that may be a service stop work and seek advice from your supervisor.

Stop work and immediately report to your supervisor, any damage to a service. Isolate the area with appropriate flags, barricades, 'do not enter' signs, etc. and do not restart work until directed.

Where possible (without placing yourself at risk) try to control any spillage, excess water, sewage, etc. so that any environmental damage is contained or minimised.

If Emergency Services or Government Inspectors are called to an incident provide them with any assistance they require.

3.20 WORKING WITH LASERS

If a laser is being used take note of any warnings and ensure that you do not look directly into the laser. Workers required to operate laser equipment must be trained to a level that suits the class of the laser they use.

The OHS&W regulations 3.2.31 require that lasers are labeled in accordance with Australian Standard 2211.

Lasers must remain in the control of an authorised, competent person and not be deliberately aimed at other persons. The laser beam path, should be located below or well above the normal eye level of other employees and appropriate signage should be set up to warn others that laser operations are in progress.

If the laser beam is fixed (not rotating) it should be terminated by a solid structure that does not produce reflections.

3.21 PERSONNEL WORKING OVERHEAD

Place suitable signage and barriers to warn and protect all people that may be affected by overhead work.

Secure all tools and material

Provide overhead protection where required such as when working over site huts or public places.

3.22 EXPLOSIVE POWER TOOLS

Only responsible and appropriately trained persons should operate explosive power tools to minimise the risks of injury such as:

- Noise
- Possible free flight of the fastener penetrating materials
- Materials shattering and spraying fragments
- Ricochet materials

3.23 DEMOLITION

Should be conducted in accordance with the requirement of 5.2 of the OHS&W Regulations, 1995.

Demolition work entails an extensive range of hazards which requires an array of strategies that consider the following but are not limited to;

- Particular difficulties or hazards related to previous use of structures
- Structural stability during demolition and temporary propping/stabilisation including adjacent structures
- Fire prevention and protection
- Safe access for workers
- Methods for controlling dust and noise emissions
- Removal of debris
- Public protection requirements
- Statutory authority requirements

3.24 LIVE CABLES, ENERGISED PLANT AND OTHER SERVICES

A thorough site investigation should locate all live cables, plant and services before work commences, whether they be underground, overhead, contained within plant or structures or clearly visible. They should then be clearly marked. Resources to locate services include site plans and building plans.

Pay special attention for hazards such as;

- Overhead powerlines and bus bars to equipment such as bridge and gantry cranes
- Overhead services
- Underground or otherwise hidden cables & services
- Cabling in wall chases and cavities
- Cracked or faulty insulation on equipment
- Equipment that is overheating

3.25 STRESSED CONCRETE AND TILT UP CONSTRUCTION

Possible hazards that require special attention include;

- Design and construction faults
- Stressing forces
- Cables and tendons
- Poor training and limited experience

3.25 STRESSED CONCRETE AND TILT UP CONSTRUCTION (continued)

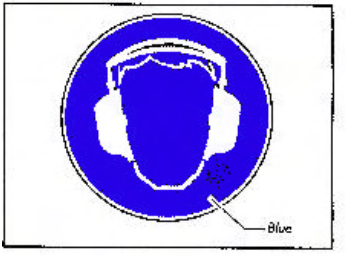
- Working at height
- Falling objects
- Plant
- Weather.

3.26 NOISE

Personal hearing protection (ear muffs or plugs or both) must be worn when noise emissions can cause a risk of hearing loss or damage and/or is above 90 decibels (A) (as per the exposure standard).

Always consider other people (whether on site or not). If they are affected by your noisy work you may need to re-schedule your tasks.

Comply with all local government and E.P.A.requirements.



3.27 PERSONAL HYGIENE AND SAFETY

Personal cleanliness is important to prevent work related illness and the spread of infections

Washing your hands before eating, drinking or smoking will reduce the risk of hazardous substances entering the body through skin absorption or ingestion.

If you are working with biological hazards ensure you have been suitably immunised. For example, hepatitis and tetanus.

Long hair should be confined so it will not become entangled in plant equipment or machinery. For similar reasons loose clothing and jewellery should also not be worn on site.

3.28 OPERATING PLANT

Do not drive or operate any plant unless you are trained, authorised to do so by your employer and hold the appropriate certificate or licence (for example, Loadshifiting Certificate, NOHSC 7019/1992)

Pre-start checks must be carried out each day or in accordance with company policy and on taking over an item of plant from another operator.

3.28 OPERATING PLANT (continued)

Where any plant is found to have a defect, damage or other fault that creates an unsafe condition, this must be immediately reported to your supervisor.

Any damage caused by the plant to other property or vehicles must be reported to your supervisor as soon as possible.

When operating plant be aware of other plant and people working in your area, ensure that all warning devices are operating during your prestart checks and only use the plant for its intended purpose.

Confine your operations to the defined work areas and ensure appropriate caution if you are required to move outside of that area for any purpose. Use identified roads, tracks and access points whenever possible.

Before starting excavations or trenching work check that any services have been identified and marked and that overhead powerlines have been isolated and/or appropriately marked with tiger tails.

Ensure that whenever leaving your plant that it is parked in a safe condition. Make sure that it has been isolated, attachments appropriately positioned and made safe. The security and isolation of the plant is particularly important if the machine is to be left overnight.

3.29 PLANT MAINTENANCE

You may be required to undertake minor maintenance of plant. This should be carried out in accordance with the manufacturer's requirements or company policy.

Never attempt to service or repair equipment unless you are trained and authorised and have the appropriate tools to do the work.

Before starting maintenance work the plant should be isolated, hydraulic pressure released and locked out and the plant chocked or blocked to allow safe access. Be aware of hot components and the risk of contact with hot lubricants, hydraulic oils, etc.

Ensure that no spillage of oils occurs and dispose of all waste materials in an environmentally appropriate manner in line with company policy. If spillage has occurred take appropriate action to reduce impact on the environment and report the incident to your supervisor.

Replace all guards – if a guard is missing the plant should be 'tagged' with an Out of Service Tag and not used unless authorised by a competent person.

3.29 PLANT MAINTENANCE (continued)

Complete maintenance records required by the company and report any faults or problems you have identified. If you have identified a fault or damage that you believe may effect the safe operation of the plant attach a tag, report the issue and seek advice.

> Any person found removing another persons Danger Tag or tampering with a Lockout Device without authority will be liable to disciplinary action

3.30 LIFTING AND SLINGING

Many injuries and damage to equipment have resulted during the lifting of equipment on construction sites.

A safe lift requires planning and must be carried out under the supervision of a competent/experienced employee.

Before you take part in a slinging or lifting task make sure that you have received appropriate advice/training on the proper approach and are aware of any Standard Operating Procedure or Safe Work Instruction that may apply to that particular lift.

3.30 LIFTING AND SLINGING (continued)

If you are required to carry out a slinging/lifting task with earthmoving plant the person supervising the lift must ensure that;

- You are aware of the approximate mass/weight of the equipment or materials being lifted.

- The plant must be suitable for the lift – is the lift within the safe operating limits of the plant
  (eg earthmoving plant should not lift over 3 tonne without special modification – see **AS1418.5**)

- An appropriate lifting point (welded lug **not** bucket teeth) on the plant is used.

- If using a 'quick hitch' it is positively engaged and the safety pin bolted or locked in place

- The slings, chains and other attachments are in good condition and have evidence of being tested and tagged.

- No person is permitted to work, stand or at any time be under the suspended load

- Hard hats and high visibility vests are worn by all persons in close vicinity of the lift

3.30 LIFTING AND SLINGING (continued)

- No unauthorised persons are in the lifting/slinging area
- The area has been inspected to make sure that it is suitable for the operation and secured from unauthorised persons.
- If the plant has outriggers or stabilisers attached these are used when required and firmly located.
- That the load is only traveled with the lifting arm of the plant fully retracted (see OHSW regulations 3.2.29 for further details).
- **Do not** 'ride' a load, slings or hooks.
- All hooks should be fitted with a device to prevent load displacement (mousing)

Signals to an operator must only be given by a trained/competent employee.

3.31 WORKING NEAR PLANT

Operators of plant are often engaged on complex tasks and due to the nature of their plant may have restricted visibility. Although they may be aware of your activities they may not be able to see you so you must look out for yourself.

To protect yourself while working near plant you must:

- Wear your high visibility vest at all times.
- Wear your hard hat if working within the operational area of the plant.
- Take note of the nature of the work being undertaken, particularly the location of access tracks, spoil dumps, swing or movement area of the plant, etc.
- Remain aware of sounds around you, particularly the audible warning devices. This may indicate a moving or reversing vehicle.
- Make and maintain eye contact with the operator of the plant if you are moving into the operational area.

3.32 FORMWORK

Possible hazards arising include;

- Overloading
- Design or construction faults
- Unstable ground
- Missing or incorrectly installed components
- Inadequate bracing or ties
- Mobile plant and vehicles coming into contact with formwork
- Poor onsite training and supervision
- Unsafe work practices (ie – Drop stripping)
- Incorrect or too rapid placement of concrete

3.33 CRANES

Safety procedures include:

- Only persons with a Certificate of Competency of the right class can operate a crane
- Only persons with a Certificate of Competency in dogging or rigging can select, sling and direct loads
- Crane operator cannot dog loads even if qualified
- All cranes should be subject to a daily checklist/ logbook completed by the operator
- Make sure that the set up area has been thoroughly inspected for hazards
- Ensure the crane is set up correctly and SWLs are never exceeded
- Make sure no load passes over workers

3.34 PORTABLE GRINDERS, FLAME CUTTING AND WELDING

Safety procedures include:

- Suitable eye protection and gloves together with other protective equipment must be worn when operating this type of equipment.
- Ensure all guards are secure
- Remove all combustibles from the fall zone and use "fire spotters."
- Ensure that appropriate fire fighting equipment is readily available
- Never work off ladders with equipment such as angle grinders.

3.35 CONCRETE SAWING AND DRILLING

Involves many hazards including;

- Poor condition of machinery and blades
- Incorrect blades or installation
- Asphyxiation or carbon monoxide poisoning
- Power cables and services in slabs, walls and cavities
- Vibration, noise and associated problems
- Dust, water and slurry
- Cutting over head and from height
- Other manual handling problems
- Adjacent personnel.

SECTION 4: SAFETY SIGNS

BRIEF

Safety signs draw attention to objects and situations affecting health and safety. They are administrative controls on the control hierarchy and as such are an important part of the hazard management program.

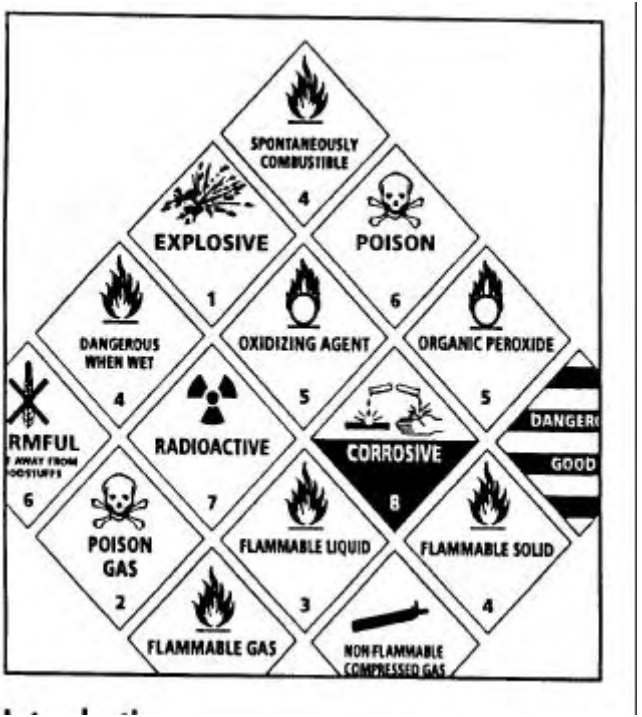
It should be noted that safety signs do not replace the need for other accident or hazardous prevention measures.

4.1 SIGN LAYOUTS

AS 1319 – 1994 sets out size, shape and colour of the signs in the four categories.

With the exception of **Danger** signs they are mainly symbolic in their design.

4.1 SIGN LAYOUTS (continued)



4.1 SIGN LAYOUTS (continued)

Safety signs draw attention to objects and situations affecting health and safety.

Safety signs are classified into four categories according to their function.

They are:

- **Regulatory signs**
- **Hazard signs**
- **Emergency information signs**
- **Fire signs**

PURPOSE, MEANING AND REASONS FOR USE

4.2 REGULATORY SIGNS

Regulatory signs contain instructions with which failure to comply constitutes either an offence by law, or a breach of standing orders, safety procedures or other workplace directions. There are three types of regulatory signs:

Prohibition Signs
Signs that indicate that an action or activity is not permitted.

Mandatory Signs
Signs that indicate that an instruction must be carried out.

Limitation or Restriction Signs
Signs that place a numerical or other defined limit on an activity or use of a facility.

4.3 HAZARD SIGNS - Advise of hazards.

There are two types of hazard signs:

Danger Signs
Signs warning of a particular hazard or hazardous condition that is likely to be life-threatening.

Warning Signs
Signs warning of a hazard or hazardous condition that is not likely to be life-threatening.

4.4 EMERGENCY INFORMATION SIGNS

Indicate the location of, or directions to, emergency related facilities such as exits, safety equipment or first aid facilities.

FIRE SIGNS

Advise the location of fire alarms, fire-fighting facilities and exits.

4.5 OTHER SIGNS AND PROCEDURES

Another form of signs used on site are the danger tags or locks and out of service tags. These tags are designed to prevent another person activating any equipment, valve, electrical supply, switch or tap which may place you in danger.

4.5.1 Danger Tag or Lock-Out

The personal danger tag should be placed on the main isolating switch, valve etc. once it has been set to the non-dangerous position. Be aware that there may be more than one hazard that needs to be isolated. Make sure you have tagged the correct isolator/switch.

A lockout system may also be used in conjunction with a danger tag. This enables the workers undertaking work that may place them at risk, to attach a lock preventing the isolating switch from being activated.

Master clips are available that allow a number of workers to each attach their own lock to the isolator switch. This requires that all workers remove their own lock and danger tag before the switch can be activated.

Remember, generally the only person who can remove a danger tag or personal lock-out device is the person who placed it.

4.5 OTHER SIGNS AND PROCEDURES continued

4.5.2 Out of Service Tag

- This tag is used to identify faulty equipment or equipment that is being serviced.
- It can be placed by any person
- It can also be removed by any person who has made the equipment safe.
- It does not offer any personal protection.

The out of service tag is primarily used to warn others of hazards.

4.6 ELECTRICAL APPLIANCE TEST TAGS

These tags need to be attached by a competent person to electric tools and equipment to record periodic testing has been carried out and the appliance was deemed safe to use at inspection.

Colour coding for the period in which the test was performed;

January – March	Red
April – June	Green
July – September	Blue
October – December	Yellow


DANGER


DANGER
DO NOT
OPERATE


CAUTION
OUT OF
SERVICE
DO NOT USE
OR OPERATE
THIS TAG
MUST NOT
BE REMOVED
UNLESS
BY AN
AUTHORISED
PERSON


OUT OF SERVICE
DO NOT USE
OR OPERATE


CAUTION
CAUTION
CAUTION
CAUTION

SECTION 5 : CLEAN, SAFE & TIDY WORK SITES

BRIEF

Employees must be provided with and instructed on, safe systems of work. Part of this process is working as a team to ensure clean, safe and tidy sites.

A documented and easily understood work plan should be developed before any work commences to ensure the following:

- All parties to be made aware of their individual responsibilities as they relate to the job requirements, hazards, site rules, priorities, emergency procedures and public safety, environmental or other required strategies.

- A definition of the work site (boundaries, structures etc.)

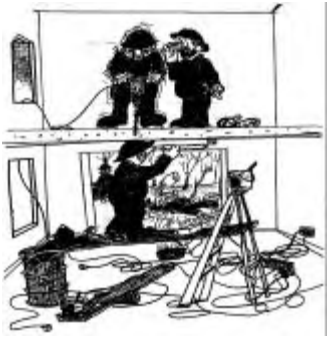
- A description of the methods of work proposed to be used and the number and type of equipment to implement these methods.

- A description of the methods proposed for handling and disposing of materials and in particular, hazardous materials.

5 CLEAN, SAFE & TIDY WORK SITES (continued)

- Methods for maintaining access and egress to the workplace.
- A description of the proposed hoardings, scaffolding, fencing and any overhead sidewalk protection.
- The location of any hazards.
- The effect the work may have on people and property adjoining the work site (especially access and egress to or from those properties).
- All safety requirements should be determined during the planning stage and a safe system of work put in place.
- All personnel shall understand the risk assessment and work plan.

Remember, a clean and tidy site promotes health and safety.



5.1 ACCESS AND EGRESS

When referring to access and egress, with respect to occupational health and safety, we define it as safe entry and exit during normal work activities and in the case of an emergency.

In Part 2.1 of the OHS&W Regulations, the purpose of a safe access and egress is so a person may:

- Move conveniently and safely about the workplace
- Leave the workplace in an emergency
- Have safe access to any place or workplace amenity

A person who undertakes work at a workplace or on or about a workplace, must be provided with a safe means of access and egress from:

- The place where the work must be performed
- Any amenities provided for the use of that person

A passage or other space used for normal movement about the workplace or intended for emergency egress must be kept free of any obstruction that could hinder or prevent the safe and rapid egress of a person in an emergency. If work must occur in the passage or space, the space for egress must be at least 600mm wide.

5.1 ACCESS AND EGRESS (continued)

In the interests of health and safety, where access and egress passages or spaces need to be clearly defined, the boundaries must be clearly marked.

Access ways must be kept clear, clean and be suitably illuminated. They must not be used for storage of materials or debris

5.2 BARRICADES

When working in an area that has a potential risk to workers on-site or the general public, the area must be barricaded off with one of the following:

- **Hoarding Panels/Fencing**
  Should effectively restrict public access and make the site more secure than if bunting or para-webbing was used. Keep all gates shut.

- **Para-Webbing**
  To limit the public and fellow workers entering a designated work area and to protect them from possible injury. Para-webbing is also harder for people to cross than bunting/flags.

- **Bunting**
  To highlight hazards and prevent fellow workers entering a specific area.

  All temporary hoardings must be installed and suitably braced in accordance with manufacturers recommendations. Do not remove bracing!

  Additional bracing may be required when attaching shade cloth to mesh clad fencing.

5.2 BARRICADES (continued)

Suitable signage must be erected in conjunction with all these forms of barricades and should be visible to people who the sign relates to.

For example: “Danger – men working above” or similar

Take care not to place signage on mesh clad gates so as to cause visibility or wind loading hazards.

5.3 HOUSEKEEPING

Housekeeping is an important component of health and safety that must be approached in a systematic manner

The workplace must be continually inspected with any hazards identified, assessed and eliminated or controlled

The role of housekeeping is not to patch up the problem but to find appropriate solutions.

5.4 STORAGE

When storing materials which include products, containers and other items encountered in the workplace, you must ensure that it is done in a safe and orderly manner. The stacking or storage of plant or materials at a workplace must be carried out:

- So as to ensure that the plant and materials cannot, while stacked or stored, fall on a person.
- In a manner that allows the safe retrieval of plant or materials from the stack or from storage.

All items or equipment used in the storage of plant or materials must, so far as is reasonably practicable, be kept free of sharp edges, projections or rough surfaces that could cause injury to a person in the vicinity of the place where the plant or materials are stored.

5.5 REMOVAL OF DEBRIS

Debris should be progressively removed from site in such a manner so as to prevent:

- Any build up of debris that could effect access and egress on site.
- Any build up of debris that could become a fire hazard.
- Any build up on a floor or surface that could effect the integrity of the floor or surface.

5.6 SITE AMENITIES

Employers must ensure that workers have access to clean drinking water

Toilets and amenities should be provided in accordance with the regulations and maintained in clean and serviceable condition.

5.7 LITTER

Food scraps and wrappings must be disposed of in approved waste containers

Litter must be stored in a manner so as not to create a risk to the environment by encroaching into stormwater drains of adjacent areas through the action of weather.

5.8 SITE DISTURBANCE

Vehicles should enter and leave the site via nominated haul routes to limit the tracking of mud and/or soil onto public roads. Placing of gravel to road access points will limit encroachment and provide all weather access.

Always ensure that loads are covered to prevent materials or litter loss into public area

5.9 DUST

The appropriate amount of water should be applied to roads and stockpiles to limit dust nuisance or pollution of stormwater systems.

Controlling dusts to and from the site

5.10 SEDIMENT BARRIERS

Sediment barriers are any structures or devices such as hay bales, straw bales, sediment fences or geo barrier used to control soil erosion and/or sediment deposits

Minimise disturbance to the site. Preserving grassed areas will assist in filtering sediment from stormwater runoff.

Sediment barriers installed down slope on a building site will filter coarse sediment before it can reach stormwater systems.

5.10 SEDIMENT BARRIERS (continued)

The Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry issued by the EPA provides practical guidance on meeting legislative requirements.

5.11 STOCKPILED MATERIALS

All stockpiles should be placed in an approved location with sediment barriers where appropriate.

Always ensure that site stormwater runoff is directed away from or around stockpiles.

5.12 CONCRETE, BRICKWORK AND PLASTERING WORK

All residues and waste generated must not enter the stormwater system

On site mixing should be carried out in an area capable of containing all excess water, residues and waste.

Solid waste should be disposed of to licensed depots

5.13 BRICK CUTTING

Brick cutting activities that produce surplus wastewater should not be carried out on public roads, footpaths or reserves

All wastewater from brick cutting activities must be prevented from entering stormwater systems.

Surplus wastewater must be either recycled or discharged into a contained area for drying by soakage.

5.14 PAINTING

Paint waste and wash waters must not be discharged to the stormwater system

Water based paint cleaning should be diverted into a contained area on site lined with newspaper, then disposed of as solid waste when dry

Oil based cleaning materials should be filtered for reuse of the solvent or taken to an appropriately licensed waste depot.

Unused paint should be contained and disposed to a licensed waste depot.

SECTION 6: LICENCES & CERTIFICATES OF COMPETENCY

Various qualifications, licences and certificates of competency are required for people involved in building work.

There are numerous types and forms required according to the specific type of work being carried out. Many business activities are also controlled by approved Codes of Practice.

The following is an overview of common requirements but is not exhaustive or complete. **Always** check with your industry association, supervisor or other appropriate authority to determine what you will need to carry out your work.

6.1 *Office of Consumer & Business Affairs, Business and Occupational Services*

Telephone:

Builders	-	8204 9644
Plumbers, Gasfitters, Electricians	-	8204 9696

- Builders Registration
- Building Work Supervisor's Registration
- Plumbing, Gasfitting or Electrical Contractors Licence and/or Registration

6.2 Department for Administrative & Information Services (DAIS)

Telephone:

Workplace Services - 8303 0400

- Asbestos - 8303 0405
- Certification - 8303 0481
- Dangerous Goods - 8303 0420

Certificate of Competency in:

- Scaffolding
- Dogging
- Rigging
- Crane Operation
- Hoist Operation
- Pressure Equipment
- Loadshifting Equipment
    - Bulldozer
    - Skid Steer
    - Front End Loader
    - Forklift
    - Excavator
    - Backhoe
    - Dragline

- Licence to carry out asbestos removal work.
- Approval to carry out asbestos work.

6.3 Environment Protection Authority

Telephone: 8204 2000

- Licence to produce, store and transport prescribed waste.
- Ozone accreditation assessment.
- Exemption to carry on a prohibited activity
- Earthwork Drainage
- Dredging

6.4 Local Councils

Permits obtained from the Local Council where the site is situated when work is over or under council streets and footpaths.

- Lay underground electrical and water services
- Connect stormwater drainage
- Erect hoardings or barriers
- Create obstruction to public place.

6.5 Transport SA

Telephone: 8348 9550

- Overdimensional (Over Mass Vehicle Permit)
- Traffic and Road Engineering Restrictions/ Modifications.
- Permit to work on or near roads

6.6 *Other Permits required (check availability)*

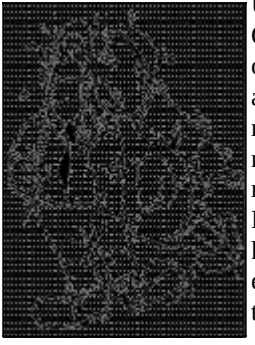
- Explosive power tool operators ticket
- Permit to enter confined space
- Hot Work Permit
- Permit to use plant on suspended floors
- Scaffold permits and tags.

SECTION 7: ACCIDENT & INCIDENT REPORTING

BRIEF

The term *"Work Related Injury"* is defined in Section 4 of the OHS&W Act. An injury may be considered as work related if it occurs at work or arises from a work practice or the conditions in a workplace. Work related injuries include the recurrence, aggravation or exacerbation of previous work related injuries.

An accident is an unplanned occurrence or incident that causes or contributes to personal injury or damage to property.



Under Section 34 (1) of the OHS&W Act and Division 6.6 of the regulations you must report any incident immediately no matter how minor. This includes near misses as well as accidents resulting in injury or damage. Employers are also required to keep their own records of employees injuries under 1.3.7 of the regulations.

7.1 REPORTING INJURIES

When an accident occurs on site, the site safety officer/site supervisor or employer's representative must be notified immediately. **If the accident is of a serious nature it must also be reported to Workplace Services (a division of DAIS) by telephone or facsimile as soon as practicable after its occurrence.**

This includes:

- Any death
- Any injury that has acute symptoms associated with exposure to a substance at work.
- Any injury that requires treatment as an inpatient in a hospital immediately after the injury.

Less serious injuries are not required to be reported to Workplace Services except if it is a dangerous occurrence.

It is the responsibility of the employer to ensure that an accident report is completed and forwarded to the relevant authorities.

As previously stated, under Regulation 1.3.7, employers are required to keep records of all injuries that occur to employees.

7.2 DANGEROUS OCCURRENCES

A dangerous occurrence is any incident or event which arises from operations carried out at a work place and which causes an immediate and significant risk to a person.

A person does not have to be injured, it is the risk that is important. There are specific dangerous occurrences which must be reported to the relevant authority:

- The collapse, overturning or failure of the load bearing of any scaffolding, lift, crane, hoist or mine-winding equipment
- Damage to or malfunction of any other major plant.
- The collapse or failure of an excavation more than 1.5 metres deep (including any shoring).
- The collapse or partial collapse of a building or structure.
- The collapse of the floor, wall or ceiling of a building being used as a work place.
- An uncontrolled explosion, fire or escape of gas, hazardous substance or steam.

7.2 DANGEROUS OCCURRENCES (continued)

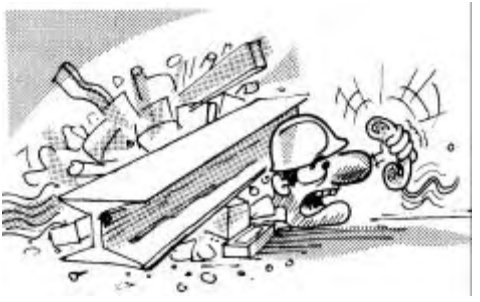
- An electrical short circuit, malfunction or explosion.

- Breathing apparatus malfunctioning to the extent that the user's health is in danger.

- Any other unintended or uncontrolled incident or event arising from operations carried out at a workplace.

Any of these dangerous occurrences must be reported to Workplace Services by telephone as soon as is practicable after they occur.

A written report on a notification of Dangerous Occurrence Form must also be provided within 24 hours to Workplace Services.



7.3 WORKERS COMPENSATION

All workers have the right to claim workers compensation if they are injured at work. If you intend to make a claim for medical expenses or lost wages you should:

- Complete the **WorkCover Claim for Compensation Form** as soon as possible after the accident.

- Attach a **medical certificate and any notice of expense** incurred as a result of the accident.

- Keep a **copy of the form** (blue copy) **and other documents.**

When preparing to return to work from a work related injury or illness you must obtain a medical clearance or certificate from your doctor.

Alternatively, claims can be lodged by telephoning WorkCover on 131 855

7.4 FIRST AID

Under Section 19 (1) (B) of the Act, occupational health and first aid facilities are described as facilities that must be provided by the employer for the welfare of his or her employees. The purpose of this section is to ensure that employees have adequate access to first aid facilities in the event of an injury or illness arising during the course of their work.

Do not provide basic first aid unless you have been given the appropriate training. Always request or seek out assistance if necessary.

It is desirable to have a qualified first aid person on-site at all times.

First aid kits complying with the **approved Code of Practice for Occupational Health and First Aid in the Workplace** should be provided at all work locations.

SECTION 8: SITE EMERGENCY & EVACUATION

BRIEF

While it should be remembered that all sites are different by way of location, type of project, number of workers, equipment used and so on, the existence of an emergency plan covering such things as evacuation and fire prevention must be common to all sites.

An emergency plan should be part of the overall work plan/method statement.

As in the work plan, the emergency plan should be assessed in consultation with both the employer and the employees or their representatives.

8.1 EMERGENCY MANAGEMENT & EVACUATION PROCEDURES

In all work locations arrangements shall be made in consultation with site safety representatives to ensure:

- An appropriate procedure exists for the protection of such personnel in the event of fire or other emergency occurring in the workplace;

- Key personnel among the workers are appointed and trained to take control during an emergency procedure;

- All occupants are instructed in the workplace emergency procedure. Appropriate practice evacuation exercises should be carried out and evaluated as often as required by the site or workplace safety committees.

8.2 EMERGENCY PLAN

An appropriate procedure means a predetermined plan of action for dealing with emergency procedures.

An emergency plan should provide for:

- An effective system for alerting emergency personnel and activating emergency procedures.
- An immediate response aimed at elimination or early containment of threat.
- A properly located decision-making control group.
- A reliable fail-safe communications system.
- A simple, effective and generally accepted evacuation procedure.
- Set-up, and inform all people on site of a safe assembly point.
- Display in a prominent position local emergency telephone numbers.

8.3 RESPONSIBILITY

Overall compliance with the emergency plan and procedure is the responsibility of the employer or their representative who is in control of the work-place.

This means regular audits, tests of procedures, training and updating all procedures based on current information.

8.4 POSSIBLE EMERGENCIES

The most likely emergencies that may occur on a work site include, but are not limited to:

- Fire and smoke
- All combustible materials
- Toxic and/or flammable vapour emission
- Vehicle accident
- Structural collapse (e.g. demolition)
- Bomb threat
- Chemical spill

8.5 IN AN EMERGENCY

- Keep calm
- Raise alarm
- Obtain help (inform emergency services if required)
    - Where the emergency is (street, suburb, state)
    - What has happened,
    - What is being done,
    - Who is calling, and
    - Do not hang up without receiving instructions on how to proceed

If a person is injured do not move them unless they are in further danger if you do not.

Remember, only render assistance within your capabilities as set out in Section Seven – Accident Reporting.

8.6 FIRE PREVENTION

Under Section 2.6.3 (1) of the regulations, appropriate fire-fighting facilities and where necessary, fire-protection, must be available at the workplace. In determining the appropriateness of the facilities, the nature of the hazards at the workplace must be assessed and maintained in an effective condition by a competent person.

Portable fire extinguishers must be provided and installed at a work place in accordance with AS 2444, Portable Fire Extinguishers – Selection and Location.

Fire prevention in the workplace can be assisted:

- By waste materials and accumulated dust being removed on a regular basis;
- Having flammable materials kept or handled in a safe manner that minimises the risk of fire.
- By use of appropriate warning signs.

8.7 FIRE FIGHTING EQUIPMENT AND SELECTION

Water Fire Extinguisher:
Designed to be used where the main hazard is wood, paper, textiles and rubbish.

Not suitable for use on flammable liquid or electrical fires.

Carbon Dioxide Fire Extinguisher:
Works by reducing the concentration of oxygen in the air to the level where combustion can no longer occur. Most suitable for use on fires involving live electrical appliances such as switchboards, electric motors and electronic equipment. Can also be used on small flammable liquid fires, e.g. petrol, paint and solvents.

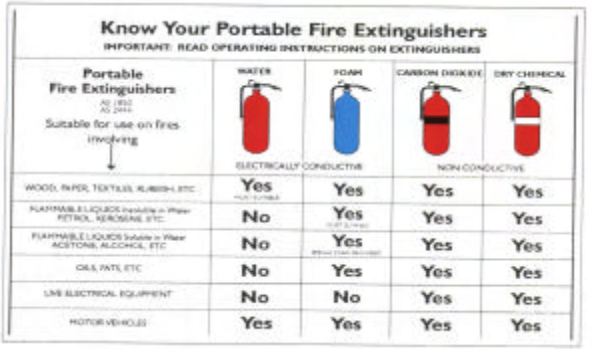
Foam Fire Extinguishers:
Designed to be used on A&B flammable liquids such as petrol, paint and solvents.

Not suitable for use on electrical fires.

Powder Type Fire Extinguisher:
This type of extinguisher is available in a variety of powders to cover a wide range of risks.

The extinguishing agents are safe, non-toxic and non-conductive.

Dry chemical powder is extremely effective when used to extinguish flammable liquid and energised electrical equipment.



Fire Hose Reels and Mains:
Where the building on completion requires fire mains and/ or fire hose reels to be installed pursuant to the Building Code of Australian, it is recommended that fire mains and/ or fire hose reels be available for the fire fighting purposes as the building progresses.

Fire Blankets:
Ideal for stove top type fires and are easy to use. Cooking oil fires are the most common cause of fires in kitchens and fire blankets are very suitable and effective in putting these fires out.

B.C.F. Extinguisher:

THIS TYPE OF EXTINGUISHER IS NOW ILLEGAL

For more information…….

On the Occupational Health, Safety & Welfare Act, Regulations or Codes of Practice;

- **WorkCover SA** **131855**

  100 Waymouth Street Adelaide
  www.workcover.com

- **Workplace Services (DAIS)** **8303 0400**
  Construction Team **8303 0405**

  Level 3, 1 Richmond Road Keswick
  www.eric.sa.gov.au

Regional Offices

Berri: **8595 2199**

Mt Gambier: **8735 1199**

Whyalla: **8648 8151**

Pt. Pirie: **8638 4777**

For more information…….

On Licences, Registrations and General Business Information;

- **The Office of Business & Consumer Affairs, Business & Occupational Services 8204 9696**

  Chesser House, 94-97 Grenfell Street, Adelaide
  www.ocba.sa.gov.au

On Ozone Depleting Substances;

- **The Department for Environment & Heritage, Ozone Protection 8204 2000**

  Chesser House, 94-97 Grenfell Street, Adelaide
  www.environment.sa.gov.au

- **Transport SA 1300 360 067**

  EDS Centre, 108 North Terrace, Adelaide
  www.transport.sa.gov.au