

# UTILITIES

## WORKING AT HEIGHTS RESOURCE

June 2006

**Acknowledgement**

This is a Utilities Industry Reference Group project in partnership with WorkCover NSW.

June 2006

**Disclaimer**

This publication contains information regarding occupational health, safety, injury management or workers compensation. It includes some of your obligations under the various workers compensation and occupational health and safety legislation that WorkCover NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate Acts.

This publication may refer to WorkCover NSW administered legislation that has been amended or repealed. When reading this publication you should always refer to the latest laws. Information on the latest laws can be checked at [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au) or contact (02) 9238 0950 or 1800 463 955 (NSW country only).

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## About this resource

### Utilities Working at Heights Resource Kit

The consequences of a fall from height can include serious injury or death. There is a significant cost to the victim, the employer, the victim's family and the community.

There is a large amount of information available about safe work at heights. Unfortunately, the volume of material can make it difficult to determine what to do when planning and undertaking a job.

This resource provides guidance to employers, occupiers, managers, and contractors in developing and implementing safe systems for climbing and working at heights primarily within the utilities industry. It provides common principles that can be applied by industry to achieve safe outcomes. The resource includes five checklists, six case studies, four sample rescue procedures and a comprehensive reference list. The checklists ask relevant questions that will allow the job to be planned and conducted safely and efficiently and reviewed on completion. It also helps identify training needs.

The *Occupational Health and Safety Act 2000* and the *Occupational Health and Safety Regulation 2001* detail your specific obligations in relation to safe work at heights. This resource provides assistance in relation to achieving compliance with your obligations. It should be noted that this resource is not exhaustive. The particular requirements that apply to your workplace will vary depending on the nature of the workplace.

**The checklists are designed to support (not replace) your existing risk management documentation eg your Safe Work Method Statement (SWMS) or Job Safety Analysis (JSA). Remember there will be other hazards beyond those identified in the checklists.**

#### Eliminate or control

It's not enough just to find the hazards in your workplace. When you have found them, you must do something to fix them before they hurt people or make them ill. The *Occupational Health and Safety Regulation 2001* requires you to eliminate all reasonably foreseeable risks. Where this is not reasonably practicable you must control the risk.

Always try to eliminate the risk in the first instance. This resource encourages the safe design of work processes to eliminate risk. Consider:

- repairing or replacing faulty equipment
- eliminating dangerous work processes (eg move controls to ground level to avoid climbing or purchase substances in quantities that do not require decanting).

If you cannot eliminate the risk entirely, substitute the hazard giving rise to the risk with one that presents a lesser risk. Clause 5 of the *Occupational Health and Safety Regulation 2001* sets out a series of common sense steps for hazard control (often called hierarchy of control). These steps are:

1. Substitute the hazard (eg use a less harmful chemical).

2. Isolate the hazard.
3. Use engineering controls (eg installing permanent access stairs and work platform).
4. Change work methods and put safer work practices in place.
5. Use personal protective equipment (PPE).

WorkCover has the *Hazpak* publication available at [www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au) to assist you in assessing your risks.

### **Is training enough?**

To make the workplace safe, people need thorough training in the work they have to do and the way they should be doing it.

Training is only part of the solution, it is important to remove or control risks and dangerous work practices.

### **Involve everyone in the risk assessment, the completion of the checklists and preparing the safe work method statements**

Talk to your staff about the job as soon as possible. They're the ones likely to be most aware of the risk associated with the tasks they undertake and they may be able to suggest ways to improve safety. Their involvement in the risk assessment process is likely to make them enthusiastic about and committed to any workplace change. Talking to staff about risk assessment and OHS issues is an on going process.

## Definitions

<b>Anchorage</b>	a secure attachment on a structure or plant to which a fall arrest device, or lanyard assembly or restraint line or lifeline can be attached.
<b>Boom type elevated work platforms</b>	a powered telescoping device, hinged device or articulating device, or any combination of these devices, used to support a platform that can be propelled horizontally as well as vertically and on which personnel, equipment or material can be elevated, being a platform that can be projected laterally outside its wheel base.
<b>Competent person</b>	means a person who has acquired through training, qualification or experience, or a combination of them, the training and knowledge and skills to carry out that task.
<b>Cranes</b>	an appliance intended for raising or lowering a load and moving it horizontally, but does not include an industrial lift truck, earthmoving machinery, an amusement structure, a tractor, an industrial robot, a conveyor, a suspended scaffold or a lift. Reference AS 2549.
<b>Tower crane</b>	a slewing boom crane with the jib or boom located at the top of a vertical tower. NOTE: the use of the term 'jib' is equally applicable to 'boom' and vice versa. Reference AS 2550
<b>Descender link</b>	a device designed for the controlled lowering of a person from a height. Generally used in conjunction with an elevating work platform and designed for self rescue or assisted rescue. Some descender links have manual releasing braking facilities while others are friction based braking.
<b>Elevating work platform (EWP)</b>	a telescoping device, scissor device or articulating device, or any combination of these devices, used to move personnel, equipment or materials to and from work locations above the support surface.
<b>Extension tool</b>	a tool that allows work to be carried out at a remote distance.
<b>High risk construction work</b>	means any of the following: a) construction work involving structural alterations that require temporary support, b) construction work at a height above 3 m, c) construction work involving excavation to a depth greater than 1.5 m, d) demolition work for which a licence is not required under Chapter 10 to carry on the business of that work, e) construction work in tunnels, f) construction work involving the use of explosives, g) construction work near traffic or mobile plant, h) construction work in or around gas or electrical installations, i) construction work over or adjacent to water where there is a risk of drowning.
<b>Ladders</b>	Fixed ladder – a ladder that is permanently attached to the structure to be accessed.

Hanging ladder – a special use ladder designed and constructed in accordance with AS/NZS 1892 and used in a suspended mode.

Portable ladders – a ladder that is not permanently attached to any structure. This includes stepladders, hanging ladders and extension ladders. Reference AS/NZS 1892.

**Must** use of the term 'must' indicates that the requirements are mandatory under occupational health and safety legislation.

**Openings** a permanent or temporary vacant or unobstructed space that could serve as a passageway accessed by a worker in order to complete a task.

**Personal Protective Equipment (PPE)** safety devices or safeguards worn by workers to protect against environmental hazards. PPE includes such items as helmets, safety goggles, hearing protectors, face shields, sun screens, respirators, harnesses and lanyards, arm guards, smocks, gloves, and safety boots.

**Pits** a hole, shaft or cavity in the ground.

**Plant** any machinery, equipment (including scaffolding), appliance, implement or tool and any component or fitting thereof or accessory thereto. Reference NOSHC.

**Pole** a vertical structure used to support apparatus above the ground. Can be made of timber, steel, concrete, etc.

**Pole strap** an adjustable work-positioning strap designed to be placed around a pole and attached at two points on each side of the worker's harness whilst the wearer is working on a pole.

**Rescue device** any apparatus or combination of apparatus specifically designed for the purpose of rescue from pole, structure, height or enclosed space. This apparatus must not be used for any other purpose than that it is supplied and designed for.

**Restraint systems** a system to prevent falls from heights. This can include approved rails, guarding, static lines, anchor points, fixed length lines and harnesses. All systems should meet the requirements of relevant Australian Standards.

**Risk assessment** a process that estimates the effects or consequences of hazardous events on people, property and the environment. The process would consider the likelihood of occurrence and the severity of the consequences.

**Safe Work Method Statement or Job Safety Analysis** a statement that:

- (a) describes how work is to be carried out;
- (b) identifies the work activities assessed as having safety risk;
- (c) identifies the safety risks; and
- (d) describes the control measures that will be applied to the work activities, and includes a description of the equipment used in the work, the standards or codes to be complied with, the qualifications of the personnel doing the work and the training required to do the work.

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<b>Scaffolding</b>	a temporary structure, specifically erected to support access platforms or working platforms. Reference AS/NZS 1576
<b>Mobile scaffold</b>	an independent scaffold that is freestanding and mounted on castors.
<b>Should</b>	indicates a recommendation to do something that is not a mandatory requirement under occupational health and safety legislation.
<b>Structure</b>	something built or constructed; a building, bridge, dam, framework, etc.
<b>Tripods</b>	a mechanical device used to support people, loads or materials being lowered or raised from openings.
<b>Vessel</b>	a hollow receptacle, especially one that is used as a container for liquids.
<b>Wells</b>	a hole drilled into the earth, generally by boring, for the production of water, petroleum, natural gas, brine, or sulphur.
<b>Work at heights</b>	work at any height above a surface where a person can fall.

## Case studies

### Utilities Working at Heights Resource Kit

#### Case Study 1

A worker was ascending a pole on an extension ladder. He fell to the ground from approximately 9 m, landing on his right leg and breaking it in several places. The worker believed that he had attached his pole strap correctly. Thorough examination and testing of the harness, the pole strap and the clips and attachment rings showed all equipment to be in good order. However, it was likely that the pole strap's clip to the employee's harness had not latched correctly or that the clip was attached to the wrong attachment.

Workers were advised of the incident during safety training days and reminded to ensure that their safety equipment was in good condition and used correctly. The employee has undergone several operations, and will require physiotherapy for some time to come.

This incident reflects the need for employees to regularly inspect their safety equipment and always use the equipment correctly.

#### Case Study 2

A young employee of a contractor was constructing a separation tank at a sewage treatment site and fell into the empty tank while working from a plank suspended between two ladders. He suffered a broken arm and ribs. There was no fall arrest equipment being used.

The contractor's representative, the site manager and the chairman of the principal contractor's safety committee undertook an investigation. The investigation found that the contractor had failed to implement the requirements of the safe work method statement (SWMS) that had been completed by the contractor's workers prior to undertaking the job. The SWMS identified working at heights as a hazard and required that scaffolding should be erected by a certified person prior to undertaking this job and employees undertaking this work from the scaffolding must be competent in its use.

This incident reflects the need to:

- use the correct equipment, in this case scaffolding, when working at heights
- ensure workers are competent to undertake the job
- ensure all contractors are aware of, involved in the development of and comply with the requirements of a SWMS.

#### Case Study 3

An employee suffered concussion and a broken wrist when he 'rode' a pole to the ground. The pole was a customer's track lighting pole at a raceway. The employee was at the top of the 7 m pole disconnecting redundant wiring.

When overhead circuit wiring on one side of the pole was cut, the pole fell with the employee still attached. Checks with the owners of the installation revealed that the poles at that location had not been inspected for more than 10 years (due to concern at the cost involved).

The work crew confirmed that the pole had not undergone any inspections prior to the employee climbing. The pole had suffered fungal attack approximately 150 mm below ground level.

This incident reflects the need for all employees to be made aware of the need for inspections and tests to be conducted on any pole or structure before ascending. This message should be regularly reinforced at annual safety training and toolbox talks.

#### **Case Study 4**

A power supply company worker was attending to a customer 'no supply' call following a severe storm. On arrival he found a large tree had fallen across service mains between a customer owned service pole and the house. The service mains were on the ground and 'alive'.

The worker situated his ladder on the pole, checked and applied his harness, attached a single pole strap and ascended the pole.

The service mains to the house were strained under the fallen tree. As the active and neutral wires were cut using low voltage line cutters, the pole cracked and started to lean. The worker, still attached to the pole, had no option but to stay with it until it wedged against the ladder leaning at about 60°. He was able to then descend the pole without injury. The pole fell to ground when the ladder was removed.

Workers were reminded through a safety bulletin and toolbox talks that they must use the approved procedure to thoroughly check and confirm the integrity of every pole or structure they intend to climb.

This incident reflects the need to check the condition of poles before ascending.

#### **Case Study 5**

A water pipe supplying plant approximately 4 m above the floor developed a leak at a gasket between two flanges. Late in the day a fitter was assigned the task of tightening the bolts joining the pipes. To undertake the job before he finished for the day the fitter chose a nearby 2.1 m stepladder.

To reach the bolts the fitter stood on the top of the ladder and stretched to tighten the joint, causing the ladder to over balance and the fitter to fall to the concrete floor below. The fitter suffered a broken collarbone and severe bruising and was unable to return to his normal duties for many months.

As the fitter had been trained and was competent to use both an EWP and mobile scissor lift platform, the correct work practice would have been for the fitter to use the mobile scissor lift platform, which was available at the other end of the work site.

This incident reflects the need to manage risks using the hierarchy of control and not take risky short cuts to save time.

### **Case Study 6**

A competent person erected instant scaffolding to support a 4.5 m high platform so a work crew could replace a faulty valve in a gas service. The service passed over a private roadway in an industrial complex.

Prior to work commencing a forklift carrying a load collided with the side of the scaffold causing the scaffolding tip over. Fortunately there were no workers or equipment on the scaffold at the time of the collision. There was a failure to provide traffic controls etc to protect the workers, the public and the scaffold.

The scaffold was dismantled and inspected by a competent person. Unserviceable components were replaced before the work was allowed to continue.

Appropriate barricades and traffic control measures were put in place for the duration of the job.

This incident reflects the need to carry out a thorough risk assessment and implement the appropriate control measures before commencing work.

**UTILITIES WORKING AT HEIGHTS – CHECKLIST No. 1**

Key considerations for: **Working from ladders – fixed and portable**

Before working at heights workers must be competent, and in some cases also authorised and certified, to perform the task at hand. Hazard identification and risk assessment must be completed and controls implemented before commencing work. If the work is above 3 m, or meets the requirements of the definition of high risk construction work, a safe work method statement (SWMS) or job safety analysis (JSA) must be completed.

Ladders should only be used for access. If it is intended to work from a ladder, the work should be light duty and short duration.

**Using the checklist:**

This checklist is part of the *Utilities Industry Safe Working at Heights Resource Kit*. The kit contains five checklists, six case studies, four sample rescue procedures and a reference list.

Each checklist is designed to assist in the preparation of your written risk assessment (not replace it). The checklist is made up of three sections: planning, conduct and review. ‘Planning’ should be completed, in consultation with your staff, before work is started. ‘Conduct’ should be completed at the worksite before work is started. ‘Review’ should be completed after work is finished with the results used to improve future work.

Where the checklist highlights a hazard or issue, they must be addressed in your risk management process eg your SWMS or JSA.

You should also ensure that your work and your risk management meet the requirements of the relevant network operator.

Job description:

Job location:

Name(s) of person(s) who completed checklist:

Initial:

Position title:

Company:

**Planning – COMPLETE THIS SECTION IN CONSULTATION WITH YOUR STAFF BEFORE STARTING WORK**

Date Planning section completed ...../...../.....

**Determining if the use of a ladder is the most suitable method of carrying out the work**

Y  N  N/A  Can fixed stairs, steps or platforms be built to provide permanent access?

Y  N  N/A  Can the job be undertaken from ground level using extension tools?

Y  N  N/A  Can the item being accessed be relocated to ground level permanently or temporarily?

Y  N  N/A  Can an elevated work platform (EWP) or scissor lift be used to carry out the work?

Y  N  N/A  Can a scaffold or a mobile scaffold be used?

Y  N  N/A  Can portable stairs, steps or platforms be used?

How long is the work being carried out likely to take? \_\_\_\_\_

How physically demanding is the work to be carried out? Consider tools, equipment, reach and leverage required, etc.

Insignificant			Significant		
6	5	4	3	2	1

**Please indicate by circling as appropriate**

*If you answered Yes to any of the above questions, or if the work is not short duration or light duty, you should consider using another means of access.*

**If the use of a ladder is still appropriate after this evaluation then the following points should be considered**

- Y  N  N/A  Is it possible to maintain three points of contact with the ladder at all times?
  - Y  N  N/A  **If No**, can the requirements of WorkCover NSW's Position Paper: *Working Off Stepladders* be met?
  - Y  N  N/A  Do the workers carrying out the work have the appropriate qualifications/training – OHS Induction for Construction Industry, site specific and work activity induction, height safety?
  - Y  N  N/A  Are harnesses, lanyards and attachment points required to attach all people working from the ladder?
  - Y  N  N/A  Are the workers required to work from the ladder fit to carry out this kind of work?
  - Y  N  N/A  Does plant and equipment need to be taken out of service prior to accessing by ladder?
  - Y  N  N/A  Is a Permit to Work on plant and equipment required?
  - Y  N  N/A  Are the surface conditions suitable for ladder access and stability, eg level and safe to work on?
  - Y  N  N/A  Are there any energy sources such as electricity (in particular overhead powerlines), gas etc that will need to be isolated to allow the work to be carried out?
  - Y  N  N/A  Does any other plant need to be taken out of service?
  - Y  N  N/A  Do you need to obtain documentary evidence of continuing isolation of the power supply before commencing work?
  - Y  N  N/A  Does the ladder and the worker working from the ladder need to be protected from passing vehicles or plant, eg vehicles on a public road, onsite forklifts?
  - Y  N  N/A  Does the worker working from the ladder need to be protected from falls into any adjacent water or other liquids?
  - Y  N  N/A  Is there anything that any part of the ladder can come in contact with while it is being maneuvered into position, eg electrical conductors, hot surfaces etc?
  - Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical or other hazardous equipment?
  - Y  N  N/A  Are there any hazards posed by a hot, cold or wet work environment?
  - Y  N  N/A  Are there any other hazards that need to be addressed to allow the work to be carried out safely?
- 
- How will the work party communicate with other people during the work or if an emergency arises?
- 
- How long will the work party take to communicate with other people during the work or if an emergency arises?
- 
- How long will rescue services take to reach the work site if an emergency arises?
- 
- Y  N  N/A  Is a Rescue Plan required?
- How will rescue be carried out from the ladder?
- 
- How will tools and equipment be provided to those carrying out the work?
-

How will people working at, or near, the base of the ladder be protected from falling items?

---

How will the public be protected from the work being carried out?

---

**When only ascending or descending ladders the following needs to be considered**

**Fixed ladders**

Y  N  N/A  Is the ladder height greater than 6 m?

Y  N  N/A  **If Yes** – Does the ladder have a cage (required by AS 1657, if greater than 6 m)  
How will the person ascending or descending the ladder be attached to prevent falls?

Y  N  N/A  **If No** – Have you identified the appropriate fall protection?  
How will the ladder be accessed?

**Portable ladders**

Y  N  N/A  Is the ladder the correct ladder for the job? The ladder should be an industrial ladder. (rated capacity of 120 kgs or greater)  
How will the ladder be supported and secured?

---

**Conduct – COMPLETE THIS SECTION AT THE WORKSITE BEFORE STARTING WORK**

Date Conduct section completed ...../...../.....

- If work is above 3 m or meets the requirements of the definition of high risk construction work, a SWMS or JSA must be completed.
- Implemented all control measures in accordance with the risk assessment, SWMS and planning outcomes.
- Obtained and complied with appropriate Permit/s.
- Discussed the job with team members/completed tool box talk.
- Inspected all safety equipment and attachment points for defects and damage.
- Where your risk assessment identifies it as necessary (or it is a site requirement) use non-conductive ladders (wooden or fibreglass) when working on, or near, electrical apparatus.
- Inspected pole to make sure it is safe to climb.
- Erected ladder at correct slope (4 up to 1 out).
- Where your risk assessment identifies it as necessary ensure that the ladder is secured top and bottom.
- Ensured workers are aware that only one person on ladder at any time (except during emergencies).
- Isolated all necessary plant and equipment.
- Ensured ladder stability, eg have weather conditions altered the condition of the work site.
- Reviewed site for any hazards not identified in the risk assessment.
- Workers advised that the appropriate fall arrest/restraint equipment and PPE must be worn.
- Emergency response discussed and practised.
- Implemented and rehearsed Rescue Plan requirements.
- Have correct and complete rescue kit in place.
- Ensure trained personnel are available to carry out rescue if required.

**Review – COMPLETE THIS SECTION AFTER THE WORK IS FINISHED**

Y  N  N/A  Can the plant, equipment or job be redesigned to eliminate the future need for accessing this work from a ladder?

Y  N  N/A  Is there any additional training required for people to carry out this type of work?

Y  N  N/A  Were all members of the work party aware of the working requirements?

Y  N  N/A  Did they apply them?

Y  N  N/A  Was the selected ladder suitable?

Y  N  N/A  Did the work comply with the SWMS / JSA?

Y  N  N/A  Was there adequate supervision for the job?

Y  N  N/A  Is there anything about the way the job was conducted that could be improved?

Y  N  N/A  Does the risk assessment, SWMS or JSA need to be reviewed?

Y  N  N/A  Were any additional control measures identified while the work was being carried out which should be implemented for workers carrying out this type of work in future?

Y  N  N/A  Were there any defects or damage to plant or equipment identified during the course of the work?

**NAME:**

**SIGNED:**

**DATE:** / /

**References**

OHS Regulation 2001

AS 4576 Guidelines for Scaffolding

AS 1576 Scaffolding

AS 1891.4 Industrial Fall Arrest Systems and Devices – Selection, Use and Maintenance – Appendix 2

Code of Practice – Safety Line Systems

Safety Guide – Use of Fall Arrest Systems

AS 2865 Safe Working in a Confined Space

AS 1657 Fixed platforms, walkways, stairways and ladders – Design, construction and installation.

WorkSafe Victoria - Prevention of Fall – Ladders

WorkCover NSW Safety Guide – Portable Ladders

WorkCover NSW Position Paper – Working Off Stepladders

<b>UTILITIES WORKING AT HEIGHTS – CHECKLIST No. 2</b>													
Key considerations for: <b>Working above and around openings</b>													
<p>Before working at heights workers must be competent, and in some cases also authorised and certified, to perform the task at hand. Hazard identification and risk assessment must be completed and controls implemented before commencing work. If the work is above 3 m or meets the requirements of the definition of high risk construction work, a safe work method statement (SWMS) or job safety analysis (JSA) must be completed.</p>													
<b>Using the checklist:</b>													
<p>This checklist is part of the <i>Utilities Industry Safe Working at Heights Resource Kit</i>. The kit contains five checklists, six case studies, four sample rescue procedures and a reference list.</p> <p>Each checklist is designed to assist in the preparation of your written risk assessment (not replace it). The checklist is made up of three sections, planning, conduct and review. ‘Planning’ should be completed, in consultation with your staff, before work is started. ‘Conduct’ should be completed at the worksite before work is started. ‘Review’ should be completed after work is finished with the results used to improve future work.</p> <p>Where the checklist highlights a hazard or issue they must be addressed in your risk management process eg your SWMS or JSA.</p> <p>You should also ensure that your work and your risk management meet the requirements of the relevant network operator.</p>													
Job description:													
Job location:													
Name(s) of person(s) who completed checklist:	Initial:												
Position title:	Company:												
<b>Planning – COMPLETE THIS SECTION IN CONSULTATION WITH YOUR STAFF BEFORE STARTING WORK</b>													
Date Planning section completed ...../...../.....													
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Have you determined the most appropriate method of access to an opening (excavation, open hatch or opening resulting from removal of plant and/or equipment)												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Will the opening be formed by means of excavating the work site?												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Can the job be undertaken remotely?												
	<b>If not</b>												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Can fixed stairs, steps or platforms be built to provide permanent access?												
	<b>If not</b>												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Can portable ladders, stairs, steps or platforms be used?												
	How long is the work being carried out likely to take?												
<p>How physically demanding is the work to be carried out? Consider tools, equipment, reach and leverage required etc.</p>													
<table style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="3" style="text-align: center;">Insignificant</td> <td colspan="3" style="text-align: center;">Significant</td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">6</td> <td style="border: 1px solid black; text-align: center;">5</td> <td style="border: 1px solid black; text-align: center;">4</td> <td style="border: 1px solid black; text-align: center;">3</td> <td style="border: 1px solid black; text-align: center;">2</td> <td style="border: 1px solid black; text-align: center;">1</td> </tr> </table>		Insignificant			Significant			6	5	4	3	2	1
Insignificant			Significant										
6	5	4	3	2	1								
<b>Please indicate by circling as appropriate</b>													
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there any likelihood that the work area will become a confined space?												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is atmospheric monitoring required prior to starting and/or during work?												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Does the work site require shoring?												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Could the opening be affected by sudden ingress of liquid or gas?												
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Has the placement or storage of plant and/or materials at the work site been addressed?												

How will the opening be protected from accidental public or unauthorised entry?	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Does the opening require: <ul style="list-style-type: none"> <li><input type="checkbox"/> Fencing?</li> <li><input type="checkbox"/> Lighting?</li> <li><input type="checkbox"/> Barricading?</li> <li><input type="checkbox"/> Covering?</li> <li><input type="checkbox"/> Signing?</li> </ul>
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do the workers carrying out the work have the appropriate qualifications/training – OHS Induction for Construction Industry, site specific and work activity induction, height safety, confined spaces training?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are harnesses, lanyards and attachment points required during work or access?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Does plant and equipment need to be taken out of service prior to accessing?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is a Permit to Work on plant and equipment required?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are the surface conditions suitable for safe access and stability, eg level and safe to work on?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are there any energy sources such as electricity, gas etc that will need to be isolated to allow the work to be carried out?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do you need to obtain documentary evidence of continuing isolation of the power supply before commencing work?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do you need to obtain documentary evidence of the location of equipment and services (electricity, gas, water, high pressure steam etc) before commencing excavation?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do workers need to be protected from falls into any adjacent water or other liquids?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do the workers need to be protected from passing vehicles or plant?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are there any hazards posed by a hot, cold or wet work environment? How will the public be protected from the work being carried out?
How will those working at or near the opening be protected from falling items?	
How will tools and equipment be provided to those carrying out the work?	
How will the work party communicate with other workers during the work or if an emergency arises?	
How long will the work party take to communicate with other workers during the work or if an emergency arises?	
How long will rescue services take to reach the work site if an emergency arises?	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is a Rescue Plan required?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are there any other hazards that need to be addressed to allow the work to be carried out safely?

<b>Conduct – COMPLETE THIS SECTION AT THE WORKSITE BEFORE STARTING WORK</b>	
Date Conduct section completed ...../...../.....	
<input type="checkbox"/>	If work is above 3 m or meets the requirements of the definition of high risk construction work, a SWMS or JSA must be completed.
<input type="checkbox"/>	Implemented all control measures in accordance with the risk assessment, SWMS and planning outcomes.
<input type="checkbox"/>	Obtained and comply with appropriate Permit/s.
<input type="checkbox"/>	Discussed the job with team members.
<input type="checkbox"/>	Where your risk assessment identifies it as necessary (or it is a site requirement) use non-conductive ladders (wooden or fibreglass) when working on, or near, electrical apparatus.
<input type="checkbox"/>	Inspected all ladders, safety equipment and attachment points for defects and damage.
<input type="checkbox"/>	Where your risk assessment identifies it as necessary (or it is a site requirement) ensure that the ladder is secured top and bottom.
<input type="checkbox"/>	Erected ladder at correct slope (4 up to 1 out).
<input type="checkbox"/>	Ensured workers are aware that only one person on ladder at any time (except during emergencies).
<input type="checkbox"/>	Isolated all necessary plant and equipment.
<input type="checkbox"/>	Ensured ladder stability, eg have weather conditions altered the condition of the work site.
<input type="checkbox"/>	Reviewed site for any hazards not identified in the risk assessment.
<input type="checkbox"/>	Workers advised that the appropriate fall arrest/restraint equipment and PPE must be worn.
<input type="checkbox"/>	Emergency response to be discussed and practised.
<input type="checkbox"/>	Implemented and rehearsed Rescue Plan requirements.
<b>Review – COMPLETE THIS SECTION AFTER THE WORK IS FINISHED</b>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Can the plant, equipment or job be redesigned to eliminate the future need for accessing the work site through an opening? <b>If Yes</b> suggest how: _____ _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there any additional training required for workers carrying out this type of work? <b>If Yes</b> make suggestions: _____ _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were all members of the work party aware of the working requirements?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Did they apply them?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Did the work comply with the SWMS/JSA?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Was there adequate supervision for the job?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there anything about the way the job was conducted that could be improved? <b>If Yes</b> make suggestions: _____ _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Does the risk assessment, SWMS or JSA need to be reviewed?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were any additional control measures identified while the work was being carried out which should be implemented for workers carrying out this type of work in future? <b>If Yes</b> list: _____ _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were there any defects or damage to plant or equipment identified during the course of the work? <b>If Yes</b> list: _____ _____

<b>NAME:</b>	<b>SIGNED:</b>	<b>DATE:</b> / /
<b>References</b>		
OHS Regulation 2001		
AS 4576 Guidelines for Scaffolding		
AS 1576 Scaffolding		
AS 1891.4 Industrial Fall Arrest Systems and Devices – Selection, Use and Maintenance – Appendix 2		
Code of Practice – Safety Line Systems		
Safety Guide – Use of Fall Arrest Systems		
AS 2865 Safe Working in a Confined Space		
WorkSafe Victoria – Prevention of Fall – Ladders		
AS/NZS 1892 Portable Ladders		

**UTILITIES WORKING AT HEIGHTS – CHECKLIST No. 3**

Key considerations for: **Plant, equipment, vessels & confined space entry, pits, wells and tunnels**

Before working at heights workers must be competent, and in some cases also authorised and certified, to perform the task at hand. Hazard identification and risk assessment must be completed and controls implemented before commencing work. If the work is above 3 m or meets the requirements of the definition of high risk construction work, a safe work method statement (SWMS) or job safety analysis (JSA) must be completed.

Scaffolds from which a person or object could fall no more than 4 m at any stage do not require certificates to erect, alter or dismantle. The worker must still be competent to erect, alter and dismantle the scaffold.

Ladders should only be used for access. If it is intended to work from a ladder, the work should be light duty and short duration.

**Using the checklist:**

This checklist is part of the *Utilities Industry Safe Working at Heights Resource Kit*. The kit contains five checklists, six case studies, four sample rescue procedures and a reference list.

Each checklist is designed to assist in the preparation of your written risk assessment, not replace it. The checklist is made up of three sections: planning, conduct and review. ‘Planning’ should be completed, in consultation with your staff, before work is started. ‘Conduct’ should be completed at the worksite before work is started. ‘Review’ should be completed after work is finished with the results used to improve future work.

Where the checklist highlights a hazard or issue they must be addressed in your risk management process eg your SWMS or JSA.

You should also ensure that your work and your risk management meet the requirements of the relevant network operator.

Job description:

Job location:

Name(s) of person(s) who completed checklist:

Initial:

Position title:

Company:

**Planning – COMPLETE THIS SECTION IN CONSULTATION WITH YOUR STAFF BEFORE STARTING WORK**

Date Planning section completed ...../...../.....

**Determining the most suitable method of access:**

How will access to the plant or equipment to be worked on be achieved?

- Y  N  N/A  Can the plant, equipment, vessel, pit, wells and tunnels be redesigned to eliminate or reduce the need for entry or access?
- Y  N  N/A  Can the job be undertaken remotely through improved design?  
**If not**
- Y  N  N/A  Can fixed stairs, steps or platforms be built to provide permanent access?  
**If not**
- Y  N  N/A  Can an Elevated Work Platform (EWP) or scissor lift be used to carry out the work?  
**If not**
- Y  N  N/A  Can a scaffold or a mobile scaffold be used?  
**If not**
- Y  N  N/A  Will portable stairs, steps or platforms or ladder be used?  
**If not**
- Y  N  N/A  Do I require a work platform to be erected?

Y  N  N/A  Can a fall prevention harness and safety line system be used? What fall protection is required (This should be the last option considered).

---

Y  N  N/A  Does plant and equipment need to be taken out of service prior to accessing?

Y  N  N/A  Is a Permit to Work on plant and equipment required?

How long is the work being carried out likely to take? Consider tools, equipment, reach and leverage required, etc.

How physically demanding is the work to be carried out

Insignificant			Significant		
6	5	4	3	2	1

**Please indicate by circling as appropriate.**

**If the use of an EWP or scissor-lift is appropriate the following points should be considered:**

- Y  N  N/A  Are harnesses, lanyards and attachment points available to attach all of those workers working from the EWP?
- Y  N  N/A  Are the ground conditions suitable for EWP access and stability?
- Y  N  N/A  Is there anything that any part of the EWP boom can come in contact with (eg power lines, hot surfaces) while the boom is being maneuvered?
- Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical equipment?

**If the use of scaffolding is appropriate after this evaluation then the following points should be considered:**

- Y  N  N/A  Are harnesses, lanyards and attachment points required for each worker erecting the scaffolding?
- What is the maximum load (weight of workers and materials) that the scaffolding will have to support?
- 
- Y  N  N/A  Are the scaffolding components compatible and the most suitable for the scaffolding being erected?
- Y  N  N/A  Are the surface conditions suitable for scaffold access and stability?
- Y  N  N/A  Are there any manual handling or storage issues associated with the erection or dismantling of this scaffold?
- How will the scaffolding be accessed?
- 
- Y  N  N/A  Does the scaffold structure and the workers working on the scaffolding need to be protected from passing vehicles?
- How will workers working at, or near the base of the scaffolding be protected from falling objects?
- 
- Y  N  N/A  Is there anything that any part of the scaffold can come in contact with while the scaffold is being constructed, dismantled or while it is being maneuvered into position? eg electrical conductors, hot surfaces etc.
- Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical equipment?

	How will tools and equipment be provided to the worker carrying out the work from the scaffolding?
<b>If a ladder is appropriate after this evaluation then the following points should be considered:</b>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are harnesses, lanyards and attachment points required to attach all workers working from the ladder?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are the surface conditions suitable for ladder access and stability?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do the workers working from the ladder need to be protected from passing vehicles or plant? How will the base and top of the ladder be secured?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there anything that any part of the ladder can come in contact with (eg power lines, hot surfaces) while it is being maneuvered into position?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical equipment?
<b>Pits, Wells and Tunnels (Confined Spaces) – the following points should be considered:</b>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Identify confined space hazards and control measures – Arrange Confined Space Entry Permit (comply with Entry Permit requirements).
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Will airline, breathing apparatus or other respiratory protection be required?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Will self-contained breathing apparatus be required for possible rescue?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Identify entry point/s and determine if fixed ladders exist in the pit or temporary access is required
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Determine safe access to the pit entry point
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Determine safety equipment required, eg safety harnesses, tripod or other attachment device, ascent/descent device, lighting, ventilation equipment, radios or mobile telephones, PPE.
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	How will the open penetration be protected from accidental public or unauthorized entry?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Determine atmospheric monitoring requirements,
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Determine whether people working in vessel need to be attached continuously or only while entering or leaving the pit.
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Will scaffolding or other platforms be required in the pit to allow access to the work being carried out?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Will the work to be carried out meet the requirements of the definition of high-risk construction work? If so you must complete a SWMS or JSA.
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are there any hazards in the area, or can hazards arise in the area that can harm the workers carrying out work, eg roads, traffic, exhaust gases or other atmospheric contaminants?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Do workers need to be protected from passing vehicles or plant? How will the public be protected from the work being carried out? Explain:
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Identify emergency response requirements (See Rescue Plan)
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Identify number of people required to enter the pit and the number of standby and rescue people

**General considerations**

- Y  N  N/A  Do those carrying out the work have the appropriate qualifications/certification/training – OHS Induction for Construction Industry, site specific and work activity induction, height safety, confined spaces training?
- Y  N  N/A  Is a toolbox talk required?
- Y  N  N/A  Are the people required to work from the ladder fit to carry out this kind of work?
- Y  N  N/A  Are there any energy sources such as electricity, gas etc that will need to be isolated to allow the work to be carried out?
- Y  N  N/A  Does the plant need to be taken out of service?
- Y  N  N/A  Do you need to obtain documentary evidence of continuing isolation of the power supply before commencing work?
- Y  N  N/A  Is a Permit to Work on plant or equipment required?
- How will the work party communicate with other workers during the work or if an emergency arises?
- 
- How long will the work party take to communicate with other workers during the work or if an emergency arises?
- 
- Y  N  N/A  Is a Rescue Plan required?
- How long will rescue services take to reach the work site if an emergency arises?
- 
- Y  N  N/A  Do workers need to be protected from falls into any adjacent water or other liquids?
- Y  N  N/A  Does the worker need to be able to swim?
- Y  N  N/A  Is the area where the work will take place level and safe to work on?
- What fall protection is required?
- 
- Y  N  N/A  Are there any hazards posed by a hot, cold or wet work environment?
- Y  N  N/A  Is there special equipment required to perform the task?
- Y  N  N/A  Will there be any open hatches or other openings?
- Y  N  N/A  Are there any other hazards that need to be addressed to allow the work to be carried out safely?

**Conduct – COMPLETE THIS SECTION AT THE WORKSITE BEFORE STARTING WORK**

Date Conduct section completed ...../...../.....

- Job plan reviewed before commencing work.
- Obtained and comply with appropriate Permit/s.
- Discussed the job with team members.
- Inspected all ladders, safety equipment and attachment points for defects and damage
- If work is above 3 m or meets the requirements of the definition of high risk construction work, a SWMS or JSA must be completed.
- Implement all control measures in accordance with the risk assessment, SWMS and planning outcomes.
- Workers advised that the appropriate fall arrest/restraint equipment and PPE must be worn
- Establish and maintain safe access to any pit entry point and access ladder.
- Erect ladder at correct slope (4 up to 1 out).
- Where your risk assessment identifies it as necessary (or it is a site requirement) use non-conductive ladders (wooden or fibreglass) when working on, or near, electrical apparatus.
- Where your risk assessment identifies it as necessary (or it is a site requirement) ensure that the ladder is secured top and bottom.
- Ensure workers are aware that only one person on ladder at any time (except during emergencies).
- Ensure ladder stability, eg have weather conditions altered the condition of the work site.
- Isolate all necessary plant and equipment.
- Review site for any hazards not identified in the risk assessment.
- Install tripod and rescue device.
- Implement and rehearse Rescue Plan requirements.
- Check emergency communications work.
- Undertake atmospheric monitoring if required.
- Ventilate space if required.
- Attach harness of person entering pit to rescue device (if required by risk assessment). Standby person to control descent.
- Person entering pit and standby person to agree on work process and any signals required.
- Emergency response to be discussed and practiced.
- If person in pit is to be attached continuously, standby person must be able to rescue without entering pit.
- If person in pit is to be attached only while entering or leaving pit sufficient standby people to be available to allow rescue.
- Standby person to control ascent of person from pit.
- Have correct and complete rescue kit in place
- Ensure trained personnel are available to carry out rescue if required.

<b>Review – COMPLETE THIS SECTION AFTER THE WORK IS FINISHED</b>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were all members of the work party aware of the working requirements?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Did they apply them?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Did the work comply with the SWMS/JSA?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Does the risk assessment, SWMS or JSA need to be reviewed?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there anything about the way the job was conducted that could be improved?
<hr/>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Was there adequate supervision for the job?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were any additional control measures identified while the work was being carried out which should be implemented for people carrying out this type of work in the future?
<hr/>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were any defects or damage to plant or equipment identified during the course of the work?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there any additional training required for workers to carry out confined space entry?
<hr/>	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Did the confined space entry permit correctly identify and control the hazards?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were all members of the work party aware of the confined space entry requirements?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Did they apply them?
<b>NAME:</b>	<b>SIGNED:</b>
<b>DATE:</b> /   /	
<b>References</b>	
OHS Regulation 2001	
AS 4576 Guidelines for Scaffolding	
AS 1891.4 Industrial Fall Arrest Systems and Devices – Selection, Use and Maintenance – Appendix 2	
Code of practice – Safety Line Systems	
Safety Guide – Use of Fall Arrest Systems	
AS 2865 Safe Working in a Confined Space	

## UTILITIES WORKING AT HEIGHTS – CHECKLIST No. 4

Key considerations for: **Accessing poles, towers and structures**

Before working at heights workers must be competent, and in some cases also authorised and certified, to perform the task at hand. Hazard identification and risk assessment must be completed and controls implemented before commencing work. If the work is above 3 m or meets the requirements of the definition of high risk construction work, a safe work method statement (SWMS) or job safety analysis (JSA) must be completed.

Scaffolds from which a person or object could fall no more than 4 m at any stage do not require certificates to erect, alter or dismantle. The worker must still be competent to erect, alter and dismantle the scaffold.

Ladders should only be used for access. If it is intended to work from a ladder, the work should be light duty and short duration.

### Using the checklist:

This checklist is part of the *Utilities Industry Safe Working at Heights Resource Kit*. The kit contains five checklists, six case studies, four sample rescue procedures and a reference list.

Each checklist is designed to assist in the preparation of your written risk assessment (not replace it). The checklist is made up of three sections: planning, conduct and review. ‘Planning’ should be completed, in consultation with your staff, before work is started. ‘Conduct’ should be completed at the worksite before work is started. ‘Review’ should be completed after work is finished with the results used to improve future work.

Where the checklist highlights a hazard or issue they must be addressed in your risk management process, eg your SWMS or JSA.

You should also ensure that your work and your risk management meet the requirements of the relevant network operator.

Job description:

Job location:

Name(s) of person(s) who completed checklist:

Initial:

Position title:

Company:

### Planning – COMPLETE THIS SECTION BEFORE STARTING WORK, IN CONSULTATION WITH YOUR STAFF

Date Planning section completed ...../...../.....

#### Determining the most suitable method of gaining access to carrying out the work

- Y  N  N/A  Has the condition of the pole or structure been assessed?
- Y  N  N/A  Can the item being accessed be relocated to ground level permanently or temporary?  
**If not**
- Y  N  N/A  Can the job be undertaken from ground level using extension tools?  
**If not**
- Y  N  N/A  Can an elevated work platform (EWP) or scissor lift be used to carry out the work?  
**If not**
- Y  N  N/A  Can a scaffold or a mobile scaffold be used?
- Y  N  N/A  Do you have to use an extension ladder?
- Y  N  N/A  Will the worker have to use pole steps?
- Y  N  N/A  Can a fall prevention harness and safety line system be used?  
How long is the work being carried out likely to take?

How physically demanding is the work to be carried out? Consider tools, equipment, reach and leverage required etc.

Insignificant			Significant		
6	5	4	3	2	1

Please indicate by circling as appropriate.

How will tools and equipment be provided to the worker carrying out the work?

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**If the use of an EWP or scissor-lift is appropriate then the following points should be considered**

- Y  N  N/A  Do the workers carrying out the work have the appropriate qualifications/training – OHS Induction for Construction Industry, site specific and work activity induction, height safety and EWP certification when boom length over 11 m?
- Y  N  N/A  Are harnesses, lanyards and attachment points available to attach all workers working from the EWP?
- Y  N  N/A  Does plant and equipment need to be taken out of service prior to accessing by EWP?
- Y  N  N/A  Is a Permit to Work on plant and equipment required?
- Y  N  N/A  Are the surface conditions suitable for EWP access and stability?
- Y  N  N/A  Will the work be carried out near live exposed electrical conductors?
- Y  N  N/A  Is there anything that any part of the EWP boom can come in contact with while the boom is being maneuvered?
- Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including the EWP) to live electrical or other hazardous equipment?

**If the use of a scaffold is appropriate then the following points should be considered**

- Y  N  N/A  Are harnesses, lanyards and attachment points required to attach people erecting the scaffold?  
What will be the maximum load (weight of workers and materials) that the scaffold will have to support?
- Y  N  N/A  Are the scaffolding components compatible and/or the most suitable for the particular scaffold being erected?
- Y  N  N/A  Are the surface conditions suitable for scaffold access and stability, eg level and safe to work on?
- Y  N  N/A  Will the work be carried out near live exposed electrical conductors or electrical apparatus?
- Y  N  N/A  Do the workers working from the scaffold need to be protected from passing vehicles or plant?
- Y  N  N/A  Is there anything that any part of the scaffold can come in contact with while the scaffold is being constructed, dismantled or while it is being maneuvered into position, eg electrical conductors, hot surfaces etc?
- Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical or other hazardous equipment?
- Y  N  N/A  Is the scaffold going to be erected over, or adjacent to, water or other liquids?
- Y  N  N/A  Are there any manual handling or storage issues associated with the erection or dismantling of this scaffold?
- Y  N  N/A  Are the workers required to work from the scaffold fit for this type of work?  
How will the scaffold be accessed?

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What will be the height of the scaffolding when erected?

How will tools and equipment be provided for the person carrying out the work from the scaffold?

---

How will rescue be carried out from the scaffold?

---

How will workers working at, or near, the base of the scaffold be protected from falling items?

---

**If a ladder is appropriate after this evaluation then the following points should be considered**

- Y  N  N/A  Are harnesses, lanyards and attachment points required to attach all people working from the ladder?
- Y  N  N/A  Are the surface conditions suitable for ladder access and stability?
- Y  N  N/A  Do the workers working from the ladder need to be protected from passing vehicles or plant?
- Y  N  N/A  Is there anything that any part of the ladder can come in contact with while it is being maneuvered into position?
- Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical equipment?

**General considerations**

- Y  N  N/A  Are there any energy sources such as electricity, gas, etc that will need to be isolated to allow the work to be carried out?
- Y  N  N/A  Do you need to obtain documentary evidence of continuing isolation of the power supply before commencing work?
- Y  N  N/A  Is a Permit to Work on plant and equipment required?
- Y  N  N/A  Is the work near a public roadway?
- Y  N  N/A  Do the workers working need to be protected from passing vehicles or plant?
- Y  N  N/A  Do passing vehicles need to be considered?
- Y  N  N/A  Are traffic controllers required?
- Y  N  N/A  Do the workers carrying out the work have the appropriate qualifications/training – OHS Induction for Construction Industry, site specific and work activity induction, height safety, confined spaces training?
- Y  N  N/A  Are there any energy sources such as electricity, gas etc that will need to be isolated to allow the work to be carried out?
- Y  N  N/A  Does the plant need to be taken out of service?
- Y  N  N/A  Do you need to obtain documentary evidence of equipment location before commencing excavation or hole boring?
- Y  N  N/A  Are there any hazards posed by a hot, cold or wet work environment?  
How will the public be protected from the work being carried out?

Y  N  N/A  Has the pole or structures integrity been check before climbing?

---

How will people working at or near the base of poles/towers be protected from falling items?

---

	How will the work party communicate with other workers during the work or if an emergency arises?
	_____
	_____
	How long will the work party take to communicate with other workers during the work or if an emergency arises?
	_____
	How long will rescue services take to reach the work site if an emergency arises?
	_____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is a Rescue Plan required?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are there any other hazards that need to be addressed to allow the work to be carried out safely?

**Conduct – COMPLETE THIS SECTION AT THE WORKSITE BEFORE STARTING WORK**

Date Planning section completed ...../...../.....

- If work is above 3 m or meets the requirements of the definition of high risk construction work, a SWMS or JSA must be completed.
- Implemented all control measures in accordance with the risk assessment, SWMS and planning outcomes.
- Obtained and comply with appropriate Permit/s.
- Discussed the job with team member/s.
- Inspected all ladders, safety equipment and attachment points for defects and damage.
- Inspected the pole, towers and structures to make sure it was safe to climb.
- Where your risk assessment identifies it as necessary (or it is a site requirement) use non-conductive ladders (wooden or fibreglass) when working on, or near, electrical apparatus.
- Where your risk assessment identifies it as necessary (or it is a site requirement) ensure that the ladder is secured top and bottom.
- Erected ladder at correct slope (4 up to 1 out).
- Ensured workers are aware that only one person on ladder at any time (except during emergencies).
- Isolated all necessary plant and equipment.
- Ensured ladder stability, eg have weather conditions altered the condition of the work site.
- Reviewed site for any hazards not identified in the risk assessment/SWMS/JSA.
- Workers advised that the appropriate fall arrest/restraint equipment and PPE must be worn.
- Emergency response to be discussed and practiced.
- Implemented and rehearsed Rescue Plan requirements.
- Correct and complete rescue kit in place.
- Ensure trained personnel are available to carry out rescue if required.

**Review – COMPLETE THIS SECTION AFTER THE WORK IS FINISHED**

- Y  N  N/A  Can the plant, equipment or job be redesigned to eliminate the future need for accessing this work from a ladder?  
**If Yes** include suggestions:  
 \_\_\_\_\_
- Y  N  N/A  Is there any additional training required for people to carry out this type of work?  
**If Yes** include suggestions:  
 \_\_\_\_\_
- Y  N  N/A  Were all members of the work party aware of the working requirements?  
 Y  N  N/A  Did they apply them?  
 Y  N  N/A  Did the work comply with the SWMS/JSA?  
 Y  N  N/A  Was there adequate supervision for the job?

Checklist 4 – Accessing poles and towers

Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is there anything about the way the job was conducted that could be improved?	
<hr/>		
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Does the risk assessment, SWMS or JSA need to be reviewed?	
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were any additional control measures identified while the work was being carried out which should be implemented for people carrying out this type of work in future?	
<hr/>		
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Were there any defects or damage to plant or equipment identified during the course of the work?	
<hr/>		
<b>NAME:</b>	<b>SIGNED:</b>	<b>DATE:</b> / /
<hr/>		
<b>References</b>		
OHS Regulation 2001		
ESAA MENS 05 – 2003 National Fall Protection Guidelines For the Electricity Industry		
AS 1891.4 Industrial Fall Arrest Systems and Devices – Selection, Use and Maintenance – Appendix 2		
Code of practice – Safety Line Systems		
Safety Guide – Use of Fall Arrest Systems		
WorkSafe Victoria – Prevention of Fall – Ladders		

**UTILITIES WORKING AT HEIGHTS – CHECKLIST No. 5**

Key considerations for: **Using scaffolding**

Before working at heights workers must be competent, and in some cases also authorised and certified, to perform the task at hand and must complete an appropriate written risk assessment/safe work method statements (SWMS) or job safety analysis (JSA). If the work is above 3 m or meets the requirements of the definition of high risk construction work, a safe work method statement (SWMS) or job safety analysis (JSA) must be completed.

Scaffolds from which a person or object could fall no more than 4 m at any stage do not require certificates to erect, alter or dismantle. The worker must still be competent to erect, alter and dismantle the scaffold.

**Using the checklist:**

This checklist is part of the *Utilities Industry Safe Working at Heights Resource Kit*. The kit contains five checklists, six case studies, four sample rescue procedures and a reference list.

Each checklist is designed to assist in the preparation of your written risk assessment (not replace it). The checklist is made up of three sections: planning, conduct and review. ‘Planning’ should be completed, in consultation with your staff, before work is started. ‘Conduct’ should be completed at the worksite before work is started. ‘Review’ should be completed after work is finished with the results used to improve future work.

Where the checklist highlights a hazard or issue they must be addressed in your risk management process eg your SWMS or JSA.

You should also ensure that your work and your risk management meet the requirements of the relevant network operator.

Job description:

Job location:

Name(s) of person(s) who completed checklist:

Initial:

Position title:

Company:

**Planning – COMPLETE THIS SECTION IN CONSULTATION WITH YOUR STAFF BEFORE STARTING WORK**

Date Planning section completed ...../...../.....

**Determining if the use of a scaffold is the most suitable method of carrying out the work**

Y  N  N/A  Can fixed stairs, steps or platforms be built to provide permanent access?

**If not**

Y  N  N/A  Can the job be undertaken safely from ground level using extension tools?

**If not**

Y  N  N/A  Can the plant or equipment that needs to be accessed be relocated to ground level permanently or temporarily?

**If not**

Y  N  N/A  Can an elevated work platform (EWP) or scissor lift be used to carry out the work?

**If not**

Y  N  N/A  Can portable stairs, steps or platforms be used?

How long is the work being carried out likely to take?

How physically demanding is the work to be carried out? Consider tools, equipment, reach and leverage required, etc.

Insignificant			Significant		
6	5	4	3	2	1

Please indicate by circling as appropriate.

**If the use of a scaffold is still appropriate after this evaluation then the following points should be considered**

- Y  N  N/A  Do the workers carrying out the work have the appropriate qualifications/training – OHS Induction for Construction Industry, site specific and work activity induction, height safety?
- Y  N  N/A  Is a temporary working platform required to be built for workers erecting the scaffold? (WorkCover advise that the scaffolder who erects scaffolding remains safe during the erection process ie in accordance with AS 1576 a temporary working platform should be erected as the scaffold is being built and dismantled).
- What will be the maximum load (weight of workers and materials) that the scaffold will have to support?
- 
- Y  N  N/A  Are the scaffolding components compatible and the most suitable for the particular scaffold being erected?
- Y  N  N/A  Are the surface conditions suitable for scaffold access and stability, eg level and safe to work on?
- Y  N  N/A  Does plant and equipment need to be taken out of service prior to accessing by scaffold?
- Y  N  N/A  Are there any energy sources such as electricity, gas etc. that will need to be isolated to allow the work to be carried out?
- Y  N  N/A  Does any other plant need to be taken out of service?
- Y  N  N/A  Do you need to obtain documentary evidence of continuing isolation of the power supply before commencing work?
- Y  N  N/A  Is a Permit to Work on plant and equipment required?
- Y  N  N/A  Does the scaffold and the workers working from the scaffold need to be protected from passing vehicles or plant eg vehicles on a public road, onsite forklifts?
- Y  N  N/A  Is there anything that any part of the scaffold can come in contact with while the scaffold is being constructed, dismantled or while it is being maneuvered into position, eg electrical conductors, hot surfaces etc?
- Y  N  N/A  Is a safety observer required to advise on the proximity of the worker and equipment (including ladder) to live electrical equipment?
- Y  N  N/A  Do workers working from the scaffold need to be protected from falls into any adjacent water or other liquids?
- Y  N  N/A  Are there any hazards posed by a hot, cold or wet work environment?
- Y  N  N/A  Are there any manual handling or storage issues associated with the erection or dismantling of this scaffold? List below
- 
- Y  N  N/A  Are the workers required to work from the ladder fit to carry out this kind of work?
- How will the scaffold be accessed?
- 
- What will be the height of the scaffolding when erected?
- 
- How will tools and equipment be provided for the worker carrying out the work?
- 
- How will the work party communicate with other workers during the work or if an emergency arises?
-

	How long will the work party take to communicate with other workers during the work or if an emergency arises?
	_____
	How long will rescue services take to reach the work site if an emergency arises?
	_____
	How will rescue be carried out from the scaffold?
	_____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Is a Rescue Plan required?
	How will workers working at, or near, the base of the scaffold be protected from falling items?
	_____
	How will the public be protected from the work being carried out?
	_____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>	Are there any other hazards that need to be addressed to allow the work to be carried out safely?
	_____

**Conduct – COMPLETE THIS SECTION AT THE WORKSITE BEFORE STARTING WORK**

Date Planning section completed ...../...../.....

- If work is above 3 m or meets the requirements of the definition of high risk construction work, a SWMS or JSA must be completed.
- Implemented all control measures in accordance with the risk assessment, SWMS, JSAs and planning outcomes.
- Obtained and complied with appropriate Permit/s.
- Discussed the job with team members.
- Inspected all scaffolding components, ladders, safety equipment and attachment points for defects and damage.
- Erected scaffolding in accordance with AS 4576.
- Where your risk assessment identifies it as necessary (or it is a site requirement) use non-conductive ladders (wooden or fibreglass) when working on, or near, electrical apparatus
- Where your risk assessment identifies it as necessary (or it is a site requirement) ensure that the ladder is secured top and bottom.
- Erected ladder at correct slope (4 up to 1 out).
- Ensured workers are aware that only one person on ladder at any time (except during emergencies).
- Ensured the scaffold's maximum load is not exceeded.
- Isolated all necessary plant and equipment.
- Ensured scaffold stability, eg have weather conditions altered the condition of the work site.
- Reviewed site for any hazards not identified in the risk assessment.
- Workers advised that the appropriate fall arrest/restraint equipment and PPE must be worn.
- Emergency response to be discussed and practiced.
- Implemented and rehearsed Rescue Plan requirements.
- Have correct and complete rescue kit in place.
- Ensure trained personnel are available to carry out rescue if required.

<b>Review – COMPLETE THIS SECTION AFTER THE WORK IS FINISHED</b>		
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Can the plant, equipment or job be redesigned to eliminate the future need for accessing this work from a scaffold?  _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Is there any additional training required for people carrying out this type of work?  _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Were all members of the work party aware of the working requirements?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Did they apply them?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Did the work comply with the SWMS/JSA
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Was there adequate supervision for the job?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Is there anything about the way the job was conducted that could be improved?  _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Were any additional control measures identified while the work was being carried out which should be implemented for people carrying out this type of work in future?  _____
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Does the risk assessment, SWMS or JSA need to be reviewed?
Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Were there any defects or damage to plant or equipment identified during the course of the work?  _____
<b>NAME:</b> _____ <b>SIGNED:</b> _____ <b>DATE:</b> /    /		
<b>References</b>		
OHS Regulation 2001 AS 4576 Guidelines for Scaffolding AS 1576 Scaffolding AS 1891.4 Industrial Fall Arrest Systems and Devices – Selection, Use and Maintenance – Appendix 2 Code of practice – Safety Line Systems Safety Guide – Use of Fall Arrest Systems AS 2865 Safe Working in a Confined Space WorkSafe Victoria – Prevention of Fall – Ladders AS/NZS 1892 Portable Ladders		

## UTILITIES WORKING AT HEIGHTS – Sample Rescue Procedures

### Rescue from a pole or structure using rope descent equipment

Effective rescue requires pre-planning, regular training and assessment in rescue procedures and competency in working on poles and structures.

#### Poles

1. Have someone call for assistance from ambulance/first aid etc.
2. If required, tuck the descender link and strap between the rescue harness and your body behind your hip to keep it out of the way.
3. Climb to the victim and secure yourself.
4. Position your safety strap around the pole or cross arm so as not to hinder the rescue and clip it into the D-ring of your rescue harness.
5. Check that the victim will not fall, then release the victim from the electrical apparatus.
6. Assess the victims needs: is expired air resuscitation needed? Provided it can be done without undue delay or hazard, administer 2 effective breaths as quickly as possible.
7. If required, erect the descender link above the victim by fitting its strap around the pole.
8. Pass rescue line through the descender link, or over the crossarm or other substantial support from which the line cannot slip.
9. If required, take a turn of the line around itself to act as a brake, and clip the line to the victim's D-ring located between the shoulder blades/dorsal strap.
10. Hold the rescue line firmly and take up the slack. Cut the victim's safety strap with the knife, replace the knife in the harness pouch, and lower the victim smoothly to the ground.
11. Descend and carry out resuscitation and first aid as required.

## Structures

1. Have someone call for assistance from ambulance/first aid etc.
2. Put on a rescue harness
3. Ensure rescue equipment is positioned to give an unobstructed drop.
4. Attach the rescue line to a sling holding the rescue container.
5. Remove the descent device and attach to rescuer
6. Disconnect your safety strap from the tower
7. Lower yourself down to a position slightly above the victim
8. Re-attach your safety strap
9. Attach the descent device with the adjustable rescue strap to the victim
10. Adjust the strap so that it is as short as possible
11. Release or cut victim's safety strap
12. Release your safety strap and lower yourself with the victim to the ground using the descent device. Use your feet to push clear of any obstructions.
13. Carry out resuscitation and first aid as required.

## **UTILITIES WORKING AT HEIGHTS – Sample Rescue Procedure**

### **Rescue from an elevated platform (EWP)**

Effective rescue requires preplanning, regular training and assessment in rescue procedures and competency in the operation of EWPs.

#### **EWP – with a basket with an escape hatch or door, which can be lowered to the ground**

1. Have someone call for assistance from ambulance/first aid etc.
2. Lower basket to ground level or as low as possible using ground controls
3. Remove hatch or door
4. Release or cut safety strap
5. Position the victim's legs through opening with victim's face down
6. Pull the victim carefully from the basket
7. Lower the victim to the ground
8. Carry out resuscitation and first aid as required.

#### **EWP – with a basket without an escape hatch or door, which can be lowered to the ground**

NOTE: The following rescue may require 2 or more rescuers depending on the victim's weight.

1. Have someone call for assistance ambulance/first aid etc.
2. Lower the basket to the ground using ground controls.
3. Climb into basket and ensure the victim's safety strap is properly anchored.
4. Squat behind the victim; clasp your arms around their chest and using your legs lift him or her to the lip of the basket. Use the back of the basket for support.
5. Roll the victim over the lip of the basket and lower them until their safety strap takes the weight.
6. Climb out of the basket to the ground, place your arm around the victim's chest, and support them against the basket while you cut the safety strap.
7. Lower the victim to the ground
8. Carry out resuscitation and first aid as required.

## Further Information

### Where can I get more information?

#### **WorkCover NSW**

Phone: 13 10 50

[www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au)

#### **OHS Legislation**

*Occupational Health and Safety Act 2000*

*Occupational Health and Safety Regulation 2001*

[www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au)

#### **Australian Standards**

Standards Australia

Phone: 1300 65 46 46

[www.standards.com](http://www.standards.com)

#### **Department of Energy, Utilities and Sustainability**

Phone: (02) 9901 8888

[www.deus.nsw.gov.au](http://www.deus.nsw.gov.au)

## Publications

#### **WorkCover Codes of Practice**

A full list of WorkCover NSW's Codes of Practice is available and can be downloaded at

[www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au)

Code of practice: safe work on roofs part 1 – commercial and industrial buildings (Cat No 304)

Code of practice: safe work on roofs part 2 – residential buildings (Cat No 308)

Code of practice: moving plant on construction sites (Cat No 1310)

Occupational Health and Safety Induction Training for Construction Work (Cat No 302)

Technical Guidance (Cat No 962)

#### **WorkCover Position Papers**

Policy Statement: The requirements for scaffolding in NSW

Measures used to control the risk associated with working at heights

#### **Fixed Ladders**

AS 1657 – Fixed platforms, walkways, stairways and ladders – Design, construction and installation.

#### **Portable ladders**

WorkCover Safety Guide: Portable Ladders (Safety Guide No 4503)

WorkCover Position Paper: Working of stepladders

AS/NZS 1892.1 – 1996 Portable ladders Part 1: Metal

AS/NZS 1892.2 – 1992 Portable ladders Part 2: Timber

AS/NZS 1892.3 – 1996 Portable ladders Part3: Reinforced plastic

AS/NZS 1892.5 – 1999 Portable ladders Part 5: Selection, safe use and care.

#### **Cranes**

AS 2549 – Cranes, Hoists and Winches – General Requirements

AS 2550 – Cranes, Hoists and Winches – Safe Use – Tower Cranes

#### **Mast Climbing Work Platform**

AS 1418 – Cranes (including Hoist and Winch) Mast Climbing Work Platform

**Scaffolding**

AS/NZS 1576 – Scaffolding

AS/NZS 4576 – Guidelines for Scaffolding

AS 1577 – Scaffolding planks

**Plant**

National Standard for Plant [NOHSC;1010 (1994)]



**WorkCover NSW** 92-100 Donnison Street Gosford NSW 2250  
Locked Bag 2906 Lisarow NSW 2252 WorkCover Assistance Service **13 10 50**  
Website [www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au)

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