

Version number	8	Implementation date	June 2024
HSEQ author	Ian Rossow	HSEQ approver	Martin O'Neill
Functional area	Health, Safety, Environment and Quality	Element	Working at Height

Purpose

To guide on the process to identify, assess and control risks for all work undertaken at height at Company workplaces.

Identification and risk assessment of working at height activities

Working at Height refers to any work activity carried out where there is a risk that a fall by a person from one level to another is reasonably likely to cause injury to the person or any other person and this may include but is not limited to:

- working within two (2) metres of an unprotected edge (e.g. openings, roofs, holes, shafts, pits or trenches)
- working from a temporary or mobile work platform
- working from a ladder.

1.1 Identification of working at height situations

Management will identify tasks and locations likely to require working at height and record the tasks on the **Register of Working at Height Tasks** and in the **Site Risk Profile Template**.

1.2 Risk assessment of potential working at height locations

To assess the risks involved in working at height a **Working at Height Risk Assessment** must be completed. This form should be completed whenever a 'work at height' task is identified.

The risk assessment must consider:

- the nature of the likely work to be carried out and hazards present
- the nature and location of the height
- the state of Emergency Rescue Plans.

In consultation with relevant workgroups, each Company site is to identify tasks and locations that have the potential for or include working at height and record these tasks in the **Register of Working at Height Tasks**.

1.3 Risk assessment for working at height

A Safe Work Method Statement (SWMS) is to be completed before any work at height is commenced using the Safe Work Method Statement template. The SWMS should take into consideration the information provided within the related Working at Height Risk Assessment.

2 Working at height controls

A **Working at Height Permit** and a SWMS must be used where the risk of a fall greater than two (2) metres that cannot be eliminated by physical barriers, such as guard rails and/or edge protection, or whenever an elevated work platform (EWP) is used.

The following controls also need to be implemented with the completion of the **Working at Height Permit** and SWMS:

- consideration of all applicable laws and regulations for work at height
- controls to reduce risks to 'As Low As Reasonably Practicable' (ALARP) when working at height is required

Working at Height Model Protocol

- areas under work at height activities are to be excluded or barricaded from pedestrian traffic as far as is reasonably practicable.
- tools and equipment must be prevented from falling
- a Standby Person or Rescuer is required while any persons are working at height using personal fall prevention equipment.

Note: When determining if risk is ALARP, the following Hierarchy of Controls (HOC) must be considered.

Table 1. Work at Heights – Typical Application of the Hierarchy of Controls.

Elimination	Can the work be conducted from the ground?
Substitution	Can you substitute heavy construction materials, tools, and/or equipment materials for lighter ones? Can you substitute the process / method for a different one?
Isolation	Can you conduct the work in a location that is isolated from other workers and/or members of the public? Can you establish exclusion zones? Can you establish traffic management?
Engineering	Can you use equipment and/or materials that have been designed to incorporate work at height safety features? Are there handrails or other barriers?
Administrative Controls	Are tools and equipment inspected and maintained? Have you received work at heights training? Do you have an SOP, or Take 5 for Safety, or SWMS?
Personal Protective Equipment	Do you have suitable footwear (suitable grip)? Do you have the correct fall restraint* equipment?

**Note: Fall arrest is only to be used if there is no other reasonably practicable method of carrying out the work*

2.1 Scaffold access and controls

2.1.1 Permanent scaffolding

All scaffolding erected and used on Company sites must comply with applicable WHS Regulations, Codes of Practice and Australian Standards.

High-risk scaffold includes:

- A suspended scaffold; and
- A cantilevered scaffold; and
- A spur scaffold; and
- A hung scaffold; and
- Any other scaffold from which a person or thing could fall more than four (4) metres.

High-risk scaffold must only be erected, altered or dismantled by a person holding the relevant high risk work licence (e.g. basic, intermediate or advanced scaffolder).

All other scaffold (e.g. scaffold less than four (4) metres) can be erected, altered or dismantled by any person that has completed training specific to this activity.

Note: The use of scaffold on a Company site or project is to be included in the Site Risk Profile template.

		
A green Scafftag means the scaffolding is safe to use.	The reverse, yellow side of the Scafftag shows the inspection frequency of the scaffolding.	A white Scafftag means the scaffolding is not safe to use.

2.1.2 Mobile scaffolds

Mobile scaffolds may be used where there is a need to regularly move the work platform and where the supporting surfaces are hard and level.

Mobile scaffolds must:

- have the wheels locked when they are stationary
- be provided with and have an installed internal access ladder
- be erected by a competent person
- not exceed three times the smallest dimension of the base
- not be moved while a person remains on the scaffold.

2.1.3 Scaffold inspections

High-risk scaffolds must be inspected by a competent person (i.e. certified scaffold inspector):

- before the scaffold is used; and
- before use of the scaffold is resumed after an incident occurs that may reasonably be expected to affect the stability of the scaffold; and
- before use of the scaffold is resumed after repairs; and
- at least every 30 days.

All Handover Certificates and records of inspection, repairs and maintenance are to be kept on site, in an accessible format, until the scaffold has been dismantled.

The Scafftag system will be used to provide users with information on the condition of the scaffold. Before accessing a scaffold, the user must check the Scafftag and visually inspect the scaffold for damage, litter and debris.

2.1.4 Handover certificate

A Handover Certificate must be provided by a licensed scaffolder for all scaffolds above four (4) metres in height.

The Handover Certificate must include the following:

- name and address of the person or organisation that requires the scaffolding,
- address and location of the scaffolding,
- name and address of the person or organisation erecting or altering the scaffolding,

- description of the type, size and purpose of the scaffolding, including duty loadings (if applicable),
- maximum number of working platforms,
- date and time of handover,
- formal statement of compliance with design specifications, supplier's information and its suitability for the intended tasks.

Note: Handover Certificates are not required for modular (self-assembled) scaffolds under four (4) metres; these may be erected by people not licensed as scaffolders but have received training, although a risk assessment, such as a SWMS, must be completed before it is erected.

2.2 Working on roofs

Where workers are required to work within two (2) metres of a roof edge or work on or travel across a brittle or fragile material (and where they could fall two (2) metres or more), fall-prevention measures will be used. Permanent or temporary walkways with guard rails are preferred. However, if these are not practicable, alternative control measures are to be used in accordance with the Hierarchy of Controls.

2.3 Fixed ladders and stairways

Ladders are only to be installed where walkways, ramps or stairways are not reasonably practicable. All platforms, walkways, stairways and ladders are to comply with national standards such as AS 1657: Fixed Platforms, Walkways, Stairways and Ladders. All harness-based fall arrest systems must comply with national standards such as the Australian AS/NZS 1891.4:2009 Industrial Fall-Arrest Systems and Devices. Appropriate warning signs should be provided (e.g. reminding climbers of 3 points of contact) on all stairways and ladders.

2.4 Working near power lines

Where scaffolding (including ladders and handrails) or other work at heights equipment may come into the proximity of overhead electrical power lines the power should be isolated wherever practicable. Where this is not practicable, the electricity network supplier is to be consulted on the clearance that is to be maintained.

2.5 Establish exclusion zones for falling objects

When work at height is to be performed and there is a risk of equipment, materials or tools falling, an exclusion zone must be established below.

The perimeter of the exclusion zone is to be assessed in relation to the following:

- height of the work being conducted above
- possible deflection of falling objects by structures, pipes or equipment in the area
- likelihood of people moving positions while the job is carried out.

Where there is a risk of people or vehicles entering the exclusion zone, physical barricades or fencing is to be erected to prevent this.

Note: Signs displaying 'CAUTION – OVERHEAD WORK – KEEP CLEAR' or similar will be placed around the perimeter of the exclusion zone to warn approaching personnel of the danger.

If the overhead work is suspended for any period (excluding rest breaks), all the tools, equipment and materials are to be secured or returned to ground level and the barriers at the exclusion zone are to be removed but only if it is safe to do so. The exclusion zone must be re-established once work resumes.

2.6 Elevated work platform (EWP) and personnel lifting equipment design

The design and operation of any EWP used on a site must comply with the requirements of AS 2550 Cranes, hoists and winches - Safe use Set and is to be fitted with a current compliance plate.

Note: In Australia, EWP operators must hold a High Risk Work Licence (or hold a nationally recognised competency in jurisdictions that do not require a licence) to operate EWPs with a boom capacity over 11 metres in reach. Persons operating EWPs that do not reach 11 metres must be trained in the safe use of an EWP.

All operators using boom-type EWPs must wear a fall-arrest harness, and a shock-absorbing lanyard connected to a certified anchor point located in the basket. A Spotter or Standby Person is required to enable rescue. When moving an EWP, speed must be in accordance with the manufacturer's recommendation. Travel must only be carried out on firm, level ground and while the operator has a clear view of the base structure.

Note: All EWPs purchased or hired need interlock travel speed and rise.

EWPs must have a log book, maintenance manual and an operator's manual. The operator must review the maintenance manual before using the equipment and complete the log book before use. If the EWP has faults that will affect safe operation, an 'OUT OF SERVICE' tag must be fitted to the controls and the Supervisor is to be promptly advised in accordance with the Stored Energy Protocol.

An authorised **Working at Height Permit** is required for any EWP use.

2.7 Crane-suspended work box

The use of a crane-suspended workbox should only be used where it is not reasonably practicable to use other methods of access.

3 Portable ladder design and use

Portable ladders are only to be used when other methods of work or access are not reasonably practicable.

- portable ladders should only be used where the residual risk is 'Low' as determined through a Take 5, SWMS and/or SOP and/or where the risk of a fall greater than two (2) metres cannot be eliminated by physical barriers
- all portable ladders must be clearly labelled for industrial use and are to have a Working Load Limit (WLL) of no less than 120 kilograms
- unless a fall arrest system is used, two-legged straight or extension ladders are only to be used for access and egress
- A-frame (four-legged) ladders below four (4) metres may be used for tasks where three points of contact can be maintained.

Platform ladders are the preferred ladder for work.

3.1 Use of portable ladders

Where the risk assessment has determined that there is no other reasonably practicable method, work from a ladder must comply with the following.

All portable ladders must be:

- inspected visually before each use
- positioned clear of any moving plant or machinery, passageways, traffic and pedestrians
- of sufficient length to allow an operator to perform their task without the need to access or use the top two rungs or steps from the top plate.

Straight portable 'extension' ladders must:

- extend at least one (1) metre above the access level
- be positioned at an angle of 4:1
- be used by only one person at a time

- secured by lashings or held by another person, and legs are to be locked in the fully open position.

Other compliance requirements:

- operators must maintain at least three points of contact at all times
- the correct ladder must be used for the task – only reinforced plastic or fibreglass portable ladders (without metal bracing or reinforcement wires) may be used for electrical work or when there is a potential electrical hazard
- the surface or base used to support the portable ladder must be stable, level, dry and free of obstructions – using objects to level, prop or extend the legs is strictly forbidden.

4 Equipment requirements

Working at Height equipment should be selected and maintained so that it is fit for purpose.

4.1 Harness Based Work

Harness-based work is the lowest level of control in the Hierarchy of Control (i.e. least effective), with fall arrest being lower than fall restraint. All harnesses and associated equipment must comply with the relevant national standard, be fit for its intended purpose and undergo pre-use checks by trained persons. An authorised **Working at Height Permit** must be obtained and the associated rescue plan completed before carrying out any harness-based work. A Standby Person / Rescuer is required while persons are carrying out harness-based work at height.

Note: In Australia, all persons who are required to carry out harness-based work must have undertaken Nationally Accredited training.

4.2 Provision of fall-arrest equipment

Fall-arrest equipment should only be used when all other control measures have been explored and deemed to be not reasonably practicable, in accordance with the Hierarchy of Controls.

4.2.1 Harness and associated equipment

All equipment must be manufactured and used in compliance with relevant regulations and Australian Standards. A fall-arrest harness is to be used with a lanyard assembly (which is attached to an anchor point) in any situation where there is risk of a free-fall greater than two (2) metres. This can be a static line or a shock-absorbing lanyard assembly. Fall-arrest systems are designed so that a person's fall is arrested after a maximum distance of two (2) metres. It is essential that all components of a fall-arrest system are fully compatible with each other.

4.2.2 Fall-arrest harness selection

Fall-arrest harnesses must be fitted with leg straps with built-in seat and/or foot stirrups to minimise the risk of suspension intolerance (trauma).

4.2.3 Anchor selection

Anchors must be designed in accordance with AS/NZS 1891.4 Industrial Fall-Arrest Systems and Devices—Selection, Use and Maintenance. A competent person is to inspect permanent anchorage points before each use and once every 12 months. Records of these inspections are to be maintained.

4.2.4 Lanyard selection

The lanyard assembly length should be chosen based on whether the set up is 'fall restraint' or fall arrest. Fall arrest lanyards should not exceed two (2) metres. The lanyard must include a shock-

absorbing device and it must be fit for purpose. When moving from one area to another where a change of anchoring points is required, double lanyards must be used to ensure attachment at all times.

4.2.5 Fall clearance

In a fall arrest set up, the fall clearance distance must be calculated to ensure that in the event of a fall, the person will not strike the ground or any structure underneath them. The fall clearance distance may be calculated by the following method:

(L) Length of lanyard + (T) Shock absorber tear-out distance + (H) Height of user + (S) Safety margin (normally one metre).

Note: If a static line is used, there may be some deflection, which should be factored into the calculation.

4.2.6 Pendulum effect and swing back

The pendulum effect occurs when the line of a device feeds out and when a fall occurs, the suspended person swings back toward the anchorage point, which may result in the person striking the ground or a structure. Where workers detach and reattach devices at height, a twin-tail lanyard must be used to ensure that at least one connection point is maintained.

4.3 Equipment registration

Each Company site must establish and maintain a **Working at Height Equipment Register**. The register is to be reviewed and revised at least annually, or when new equipment is purchased, or removed from service.

4.4 Equipment maintenance

4.4.1 Harnesses and associated equipment

All equipment must be inspected by the user before and after each use (following the manufacturer's instructions). Safety harnesses will be periodically re-certified in accordance with the manufacturer's instructions.

Note: If a 'fall indicator' is fitted where a yellow or red tag displayed indicates that a fall has occurred, withdraw the item from service and do not use it under any circumstances.

All equipment, including lanyards and rope devices, must be re-tested and recertified by a NATA approved agency every 12 months or after these have been involved in a fall.

Harnesses and lanyard assemblies must be inspected fully by a competent person at least every six months. This may be by a licensed rigger or by a person holding the appropriate 'Work Safely at Height' competency. The details of the inspection are to be recorded on the HSEQ-6-05-F01 Working at Height Equipment Register.

Note: Harnesses and associated equipment must be replaced after 10 years from the date of manufacture.

5 Initiating Emergency Response / Rescue Plan

All work being performed under an Authority to Work (ATW) and/or Permit/s must be immediately stopped if there is an emergency event or if the rescue plan needs to be initiated. All non-essential workers in the immediate area must move away to a safe location to enable the rescue team and/or emergency services to perform their duties.

The Authorised Works Controller must immediately notify the Authorised Plant Controller if there is an emergency and/or a rescue is required. The Authorised Plant Controller will immediately suspend the

Working at Height Model Protocol

ATW and/or Permit/s to allow the rescue team and/or emergency services to perform their duties without the need to attach a Personal Red Lock.

After the emergency event has been managed, the Authorised Works Controller and the Authorised Plant Controller must:

- account for all persons that had been working under the ATW and/or Permit/s
- inspect the work area to determine if safe to proceed with the work
- identify any additional hazards, and review and update control measures so that the emergency event does not occur again
- communicate updated requirements to the work crew using the ***On-the-Job Assessment & Discussion*** form
- Re-issue ATW and/or Permit/s

If the event requires notification to the relevant regulator, work cannot re-commence until the regulator has released the scene (refer to the ***Incident Reporting, Investigation and Action Management Protocol*** for further guidance).

Roles and responsibilities

Role	Responsibility
Operations Managers Site Managers Supervisors	Ensure their area of responsibility complies with laws, regulated Australian Standards, and Codes of Practice related to working at height. Ensure their area of responsibility complies with all manufacturer's requirements. Identify tasks and locations likely to need working at height. Record tasks on <i>Register of Working at Height Tasks</i>. Identify hazards and assess risks in consultation with employees and other workers before working at height is carried out. Approve SWMS before working at height is carried out. Understand the use of Scafftags (load limitations or restrictions of the scaffold). Select preferred EWP hirers. Verify that inspection and maintenance programs are in place. Ensure relevant training is provided to their personnel.
Project Managers	Plan for the elimination or risk minimisation of work at heights at planning phase. Ensure purchases and hiring complies with the requirements.
EWP Operators	Comply with all laws, regulations, regulated Australian Standards, Codes of Practice related to working at height. Operate EWPs in compliance with manufacturer's requirements. Take part in identifying hazards and assessing risks. Wear appropriate fall-arrest harness, shock-absorbing lanyard connected to an anchor point located in the basket and a safety helmet for all boom-type EWPs. Fully check EWPs for defects before and after every use (strictly to manufacturer's recommendations). Review EWP maintenance manual before using equipment. Fill out EWP log book after each use.
Employees and Other Workers	Comply with all laws, regulations, Australian Standards, Codes of Practice related to working at height. Comply with all manufacturer's requirements. Take part in identifying hazards and assessing risks. Understand the use of Scafftags (load limitations or restrictions of the scaffold).
Spotter or Standby Person	Comply with all laws, regulations, Australian Standards, Codes of Practice related to working at height. Enable rescue, if and when required.

Working at Height Model Protocol

HSEQ document definitions

Refer to HSEQ terms and definitions library on the HSE intranet site.

HSEQ Document Version History

This table documents recent key HSEQ Document updates.

No.	Date of issue	Comments / Key changes	Next review
3.0	July 2015	Replaces GRP-OHS-027 Work at Height	
4.0	September 2016	Wording changes to increase clarity. Inclusion of Hierarchy of controls table. Additional information regarding ladders and stairways, including design and construction. Clarification regarding when portable ladders may be used. Clarification regarding harnessed based work. Clarification regarding responsibilities of managers, project managers and EWP Operators.	
5.0	July 2019	Protocol content realigned under amended Global harmonisation of minimum standards.	
5.1	March 2022	Re-brand and update document numbers to align with new HSEQ MS	
6.0	June 2024	Rebrand to align with Policy and Procedure Hub	June 2026
7.0	August 2024	Reviewed and updated section 2.1 (Scaffolding)	August 2026
8.0	December 2024	Added Section 5 – Initiating Emergency Response / Rescue Plan	December 2026