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# UQ Work at Height Management Plan



#### The University of Queensland P&F Working at Height Safety Management Plan 2021

This document supersedes all previously issued Working at height Safety Management Plans. Check this is the latest version before use.

| Division     | Property and Facilities   | UQ - OHSW Team  |               |
|--------------|---|---|---------------|
| Authors      | Babar Siddique  | UQ – P&F OHSW Team  | OHSW Advisor  |
|              | Muhammad Sair   | UQ – P&F OHSW Team  | OHSW Advisor  |
| Editors      | Scott Lennon  | UQ – P&F OHSW Team  | OHSW Manager  |
| Approved by  | Fabby E   | December 2021   |               |
|              | Approved for release by Director<br>update to legislation, codes of pr<br>organisational responsibilities and<br>PF18 | ractice, review of KPI, review of<br>I clarification of the work permit | December 2021 |
| Version      | 01  | December 2021   |               |
| Revision 1.1 | Approved for release by Cl  |   |               |

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# 1. Introduction

The purpose of the UQ Work at Height Management Plan (the Plan) is to outline the University of Queensland's (UQ) expectations regarding the health and safety requirements when conducting work at height in accordance with *Work Health and Safety Act 2011 (Qld)* and *Work Health and Safety Regulation 2011 (Qld)* as well as other relevant legislation.

This document and its supporting tools set the framework for the minimum safety standard required for the management of work at height and serves as a reference for the processes to be undertaken at UQ, subject to what is reasonably practicable in each context. This document details the necessary measures that should be taken to ensure the safety of any person who is required to work with a risk of falling. It provides a clear description of systems developed by UQ to ensure the risks of falls have been eliminated or where this is not possible, reduced to a level that is as low as is reasonably practicable. UQ aims to proactively meet its work health and safety obligations through the implementation of this plan.

# 2. Objectives

The objective of the Plan is to identify and highlight areas and tasks at UQ where the risk of fall from height is possible and remove or minimise the risks to UQ workers associated with work at height. It provides a clear description of systems which needs to be developed by Organisational Units to ensure the risks have been eliminated or, where this is not possible, reduced to a level that is as low as is reasonably practicable. The Plan is to ensure that the Organisational Units has effective and adequate systems in place to:

- Eliminate risks of falling from one level to another.
- If eliminating the risks of falling from one level to another is not reasonably practicable, minimise these risks as far as reasonably practicable.
- Identify hazards that may cause injury and assess risks associated with these hazards.
- Implement adequate risk control measures and review them for effectiveness.
- Specify roles and responsibilities regarding management of risks of falls.

## 3. Scope

This document applies to all UQ workers (staff, students, and volunteers) at all UQ campuses and sites. For the purposes of this document, working at height includes the following activities:

- High-risk construction work (e.g. building repair and maintenance where there is a risk of falling more than 2 metres).
- Non-construction work above 2 metres (e.g. using ladders where there is a risk of falling more than 2 metres).
- Work at height less than 2 meters (e.g. where there is a risk of fall from one level to another).

This document provides information to assist in managing fall hazards at all UQ campuses which includes activities where UQ workers are working:

- Off the ground (e.g. on work platforms);
- On the ground close to holes (e.g. excavations) edges or ledges (e.g. retaining walls);
- Openings through which people could fall (e.g. skylight); or
- In areas where objects may fall from higher levels and cause injury.

# 4. Regulatory Requirements

Any work at height procedures associated with UQ shall be performed in accordance with all relevant State and Commonwealth Acts, Regulations, Advisory Standards, Codes of Practice and industry Standards, including, but not limited to the following:

- Work Health and Safety Act (2011);
- Work Health and Safety Regulations (2011)
- Managing the risk of falls at workplaces Code of Practice 2021.

## 5. Risk management process

The systematic process applied to manage the risk of falls at UQ involves:

- Identifying hazards that may cause injury;
- Assessing the risks associated with these hazards;
- Implementing risk control measures; and
- Reviewing risk control measures to ensure they are effective.

## 5.1 Fall Hazard Identification

Before any risks with working at height can be controlled, they must first be identified. It is expected that all reasonably foreseeable hazards that could give rise to the risk of falls will be identified. To identify fall hazards:

- Identify all locations and tasks that could cause injury due to a fall. This includes access to the areas where work is to be carried out refer 16.1 Checklist identifying fall hazards and inspecting the workplace.
- Walk around the workplace and talk to workers to find out where work is carried out that could result in falls refer *16.1 Checklist identifying fall hazards and inspecting the workplace*.
- Review available information, including incident records of previous injuries and 'near miss incidents related to falls.

Local Health Safety and Wellness (HSW) managers and Work Health and Safety Coordinators (WHSCs) can assist the Organisational Units in identifying the fall hazards specific to their area.

#### 5.2 Risk assessment

After identification of hazards that could give rise to risk of falls, risk assessments (completed in UQSafe) will be conducted to determine the following:

- Consequence of a fall and likelihood of that consequence materializing if the fall did occur;
- Severity of the risk;
- Effectiveness of existing control measures;
- Control measures to eliminate or minimise the risk; and
- Urgency of implementing the controls.

The risk assessments can be generic for different work areas if the fall hazards are the same.

Risk assessments on individual fall hazards will be needed if there is any likelihood that a person may be exposed to greater, additional or different risks refer *16.2 Considerations when assessing the risks of fall hazards.* 

These risk assessments will help the organisational units contribute to the working at height aspect of local risk registers and local safe operating procedures (LSOPs) for specific tasks to their areas.

Risk assessments for all activities and infrastructure involving work at height must be undertaken by relevant Organisational Units. Local HSW Managers and WHSCs can assist the organisational units in this process.

#### 5.3 Implementing risk control measures

The hierarchy of controls (refer *16.3 Hierarchy of Control for Fall Hazards*Hierarchy of Control for Fall Hazards) must be applied in implementing risk control measures at UQ. This may involve a single control measure or a combination of two or more different controls.

The following will be considered when developing control options:

- Can the need to work at height be avoided to eliminate the risk of a fall?
- Can the fall be prevented by working on solid constructions?
- Can the risk of a fall be minimised by providing and maintaining a safe system of work? Including:
  - Providing a fall prevention device (for example, installing guard rails) if it is reasonably practicable to do so.
  - Providing a work positioning system (for example, an industrial rope access system). Where
    a work positioning system or fall arrest system is the main way of conducting the work at height
    safely, this work must be outsourced to a suitably qualified and competent contractor. Details
    of the outsourcing process are given in section "Outsourcing roof works".

In some cases, a combination of control measures may be necessary, for example using a safety harness while working from an elevating work platform.

Control measures are needed where there is a risk of injury irrespective of fall height. UQ workers must assess the risk and provide reasonably practicable measures that reflect the risk.

Work of long duration and higher frequency will usually require control measures higher up the hierarchy to provide adequate protection, for example using a mobile scaffold instead of a ladder.

The control measures selected must not create new hazards, for example electrical risks from contact with overhead power lines or crushing and entanglement from plant such as elevating work platforms.

## 5.4 Maintaining and monitoring control measures

Upon selection and implementation of control measures, a planned program of inspections and maintenance will be developed, refer *16.4 Work at height safety controls inspection schedule*.

The inspection regime should include details of:

- The equipment to be inspected;
- The frequency and type of inspection (pre-use checks, detailed inspections);
- Action to be taken on finding defective equipment;
- Means of recording the inspections
- Monitoring the effectiveness of controls; and
- Training of users.

If any signs of wear or weakness are found during the inspection, the components or means of attachment must be withdrawn from use until they are replaced with properly functioning components.

## 5.5 Reviewing control measures

Control measures that are put in place to prevent falls must be reviewed, and if necessary revised, to make sure they work as planned and to maintain an environment that is without risks to health and safety. The control measures must be reviewed:

• When the control measure does not control the risk so far as is reasonably practicable.

- Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
- If a new hazard or risk is identified.
- If the results of consultation indicate that a review is necessary.
- If a health and safety representative requests a review.

Control measures may be reviewed using the same methods as the initial hazard identification step.

UQ workers and their health and safety representatives (HSRs) will be consulted to consider the following:

- Are the control measures working effectively in both their design and operation?
- Are all fall hazards being identified?
- Are workers using the control measures in accordance with the instruction and training that has been provided?

## 6. Working on Roofs

This section applies to the planning, preparation and conduct of work for the maintenance of roofs, the maintenance of roof-mounted equipment and structures, and the movement of those working on roofs at UQ campuses and sites. All roofs are centrally managed by P&F and therefore no work on roofs is permitted unless it is organised through P&F. This is illustrated in the UQ working at heights decision tree in the refer *16.5 UQ Decision Tree for working at heights*.

# 7. High risk construction work

Construction work that involves a risk of a person falling more than 2 metres is included in the list of high-risk construction work under section 291 of the *WHS Regulation*. Section 299 of the regulation stipulates that Safe work method statement (SWMS) must be prepared before high-risk construction work commences.

## 7.1 Safe Work Method Statement (SWMS)

Safe Work Method Statements are prepared for all high-risk construction work undertaken at height by UQ workers.

## 8. Work at height other than high risk construction work

#### 8.1 Non-construction work above 2 metres

UQ workers must not perform work at heights above 2m unless suitably trained and approved in the appropriate working at height methods required to undertake the task. UQ workers who are not currently trained as competent to work at heights, cannot undertake work in any circumstance in defined working at heights areas/tasks.

Organisational Units must ensure that risk assessments are completed for tasks and activities that require working at height greater than 2 metres. UQ workers should firstly consider whether the work needs to be conducted at height or if there is another way the work can be undertaken.

## 8.2 Working at heights of less than 2 metres

It is possible that a number of factors can combine to create a hazardous situation and this makes completing the hazard identification and risk assessment process very important for work at any height.

In situations where persons are working at heights of less than 2 metres, the standard risk management process of identifying fall hazards, assessing the risk of a fall occurring, and controlling the risks should be adopted (<u>Risk management process</u>).

Organisational Units must ensure that risk assessments are completed for tasks and activities that require working at height less than 2 metres to determine:

- The risk of falling from one level to another; and
- Risks from falling objects.

## 9. Training and competency

Workers need to have training where there is a risk of falls prior to controls being implemented. Training must be appropriate for the activity or task being completed and may also include high risk work licences.

Any person working on a task involving the use of harness, anchor points/lifelines, etc. must have attended nationally recognised training in Height Safety Awareness (at a minimum). This training does not have an expiry date. However, regular refresher training is recommended to ensure competence is maintained.

Other training requirements may be identified via the risk assessment, safe work procedure or roof access permit.

UQ workers who work at heights, must have the skills and knowledge to understand the hazards associated with the tasks, the contents of any roof access permit and the control measures implemented for their protection.

Organisational Units will ensure that all UQ workers who are responsible for installing, maintaining, using and inspecting work at height equipment are trained and competent.

Organisational Units must ensure that UQ workers undertaking work above 2 metres (either construction or non-construction) hold a current Work Safely at Height qualification (RIIWHS204E or equivalent). Records of all training provided to workers in relation to working at heights must be kept by the Organisational Units.

Site-specific safety training sessions for the understanding of work at height procedure, work at height plan, and other work at height documentation for example SWMS and emergency response procedures (ERP) should be provided to UQ workers.

## 10. Emergency Response Plan

UQ will outsource high-risk work that may require the performance of at height rescues to external contractors with expertise and appropriate emergency procedures.

For all other high-risk work at height, as determined by a risk assessment, an Emergency Response Plan (ERP) must be developed prior to working at height by competent persons. The WHS Regulation and the Code stipulate the need for emergency and rescue procedures. Consideration should be given to:

- Communications
- Rescue and resuscitation equipment
- Capabilities of rescuers
- First aid
- Local emergency services.

Organisational Units must provide UQ workers specific safety training sessions where they will review emergency response procedures and receive instructions on developing and implementing Emergency Response Plan (ERP). The ERP should be reviewed periodically.

# 11. Safe use of working at height plant and equipment

## 11.1 Scaffolding

Scaffolds can be very effective protection in preventing falls. Scaffolds should be erected in accordance with the designer's instructions and the scaffold plan.

#### 11.1.1 Planning

Scaffolding work should be carefully planned in consultation with all relevant people involved in the task before work starts so it can be carried out safely. Consultation should include discussions on the:

- Ground condition and type,
- Working environment,
- Weather conditions,
- Nature of the work and other activities that may affect health and safety,
- Interaction with other trades,
- Entry and exit from the scaffold,
- Management of mobile plant and surrounding vehicular traffic and
- Safe Work Method Statements (SWMS)/task based risk assessment.

#### 11.1.2 Risk Assessments

Tasks that have a scaffolding aspect to them will be risk assessed before they are conducted. The Safe Scaffolding Checklist (refer 16.6) should be used in conjunction with the risk assessment process to help identify the relevant risks.

The risk assessment should take into account the following:

- The size, location, height and weight of the scaffolding to be constructed;
- Is a mechanical aid such as a forklift required to erect, move or relocate the scaffold;
- Is the scaffold correctly assembled and secure to prevent loose objects from falling;
- Are there any sharp or protruding objects that may present a risk of injury or damage other equipment or plant when moved;
- Has a safe access route been identified where there is no obstacles;
- Has the process been discussed with the workers that are required to perform the Scaffolding task?
- If a person or object may fall more than 4 metres from the scaffold, a licensed contractor must be engaged to erect, move or relocate the scaffold;
- Where a person or object may fall 4 metres or less, a competent person with relevant information, instruction, training and supervision may erect, move or relocate the scaffold.

#### 11.1.2.1 Fixed Scaffolds

Scaffolding work platforms are generally rated as light, medium or heavy duty. Safety considerations include:

- Scaffolding conforms to AS/NZS 4576: Guidelines for scaffolding and AS/NZS 1576: Scaffolding series.
- Prefabricated scaffolds are of the same type and not mixed components, unless the mixing of components has been approved by the manufacturer.
- Safe access to and egress from the scaffold is provided.

- Edge protection (hand rails, mid-rails and toe boards) is provided at every open edge of a work platform.
- All components are well-maintained.
- Scaffold is inspected before its first use and at the start of each day.
- Incomplete or defective scaffolds must never be accessed.
- Reviewing weather conditions before starting. Do not work during a storm, wet conditions or high winds.

#### 11.1.2.2 Mobile scaffolds

Mobile scaffolds must be provided with information regarding safe use and erection. If scaffolding is to be altered, contact the manufacturer or supplier for additional guidance. All modular mobile scaffolds are to be erected in accordance with manufacturer's specifications.

Consider environmental factors when determining the height of the scaffold relative to the base dimension. Where adjustable castors are used, the slope of the surface should not exceed five degrees.

Before moving mobile scaffolds check:

- There are no power lines or other overhead obstructions.
- The ground is firm and level.
- No person is on the scaffold.
- No equipment and material can be dislodged from the platform.
- The supporting surface is free of obstructions (a small obstruction may cause a mobile scaffold to overturn).
- Electrical equipment and leads cannot be tangled.
- Brakes on castors are to be locked at all times unless moving the scaffold. Never move the scaffold in windy conditions. Push or pull the mobile scaffold from the base never use powered vehicles to move the scaffold.

## **11.2 Elevating Work Platforms (EWPs)**

#### 11.2.1 Selecting appropriate equipment for the task

Consideration of each task and any potential hazards to ensure an EWP is suitable to use and the type of EWP is appropriate for the task e.g. indoors or outdoors, presence of overhead hazards, condition of supporting surfaces. It may be appropriate to use an alternative – like scaffolding – to reach and carry out the task.

Before operating an EWP undertake a thorough task, site and equipment specific hazard and risk assessment. This may include consideration of the height, reach, crush or trapping hazards, safe working load, ground conditions and terrain, restricted working space and any electrical hazards, including overhead power-lines refer *16.7 EWP Safe Operating Procedure*.

#### 11.2.2 Operator training

Before operators start using EWPs, training must be provided about the functions, safe work methods and emergency procedures. For a boom-type EWP, where the boom length is 11 metres or more, the operator must hold a High-Risk Work Licence. Operating instructions must be clearly and permanently displayed on the EWP.

#### 11.2.3 EWP Inspections

Regular inspections by competent persons enable issues to be identified and rectified. Details of observations during an inspection, including the nature of potential failures, are essential for planning maintenance, repair work and finding the cause of atypical failures.

Generally, the following types of inspections should be undertaken:

- Pre-operational inspection;
- Routine inspection;
- Periodic inspection; and
- Major inspection.

#### 11.2.4 Pre-operational checks/inspections

Pre-operational inspections are generally visual and functional verification. These should be conducted at the beginning of each shift for obvious faults and to confirm the EWP's correct functioning of controls and travel limits. These inspections should also include detection of damage, tyre pressures, fluid levels and leaks.

Pre-operational inspections must be undertaken by a competent person familiar with the operation of the particular model of EWP, for instance the EWP's operator. Refer to *16.8 Elevating Work Platform (EWP) - Pre-operational inspection checklist*.

If faults are identified, the EWP must be placed out of action (tagged out) and fixed before being used again.

#### 11.2.5 EWP Routine inspections

Routine inspections are normally based on usage and must be undertaken in accordance with any manufacturer's recommendations. Routine inspections should be carried out at least every three months, unless the EWP is not in-service. Competent person should provide a written inspection report. A list of typical items to be inspected during routine inspections is included in section 16.9Elevating Work Platform (EWP) routine inspections checklist Elevating Work Platform (EWP) routine inspections checklist Elevating Work Platform (EWP) routine inspections, where available. Ensure any safety issues identified through an inspection are rectified and the EWP is safe before it is used again.

#### 11.2.6 EWP Periodic inspections

Periodic inspections are based on intervals of usage in hours subject to a maximum time period, typically one year. Periodic inspections must be undertaken at least annually, unless otherwise recommended by the manufacturer. A list of typical items to be checked during periodic inspections is given in section *16.10 Elevating Work Platform (EWP) periodic and major inspections checklist*. This list is not exhaustive. The items to be inspected should be based on manufacturer's recommendations, where available.

Ensure any safety issues identified through an inspection are rectified and the EWP is safe before it is used again.

#### 11.2.7 EWP Major Inspections

EWPs should be subjected to a major inspection for continued safe use after 10 years of service, and every 5 years thereafter. EWPs should also be subjected to a major inspection if:

- The manufacturer recommends that it is due for a major inspection at earlier intervals.
- The EWP is to be recommissioned or imported, and the previous operating records are not available.
- The EWP is to be recommissioned or imported and is designed or built to an unknown technical standard in which case a design review should also be undertaken to ascertain whether the design meets minimum legislative requirements.
- Modifications have been made which could impact on the safety.

- The EWP has suffered damage that could compromise critical components or functions.
- A competent person recommends it due to issues identified during other inspections.

Major inspections are not a substitute for other types of inspections but should be additional. Components subjected to a large number of stress cycles, such as structural members, require shorter inspection intervals. These components should be inspected during pre-operational, routine and periodic inspections and not left until the major inspection.

A list of typical items to be checked is given in Elevating Work Platform (EWP) periodic and major inspections checklist section *16.10*. This list is not exhaustive. The items to be inspected should be based on manufacturer's recommendations, where available.

Ensure any safety issues identified through the inspection are rectified and the EWP is safe for before it is used again.

#### 11.2.8 During the Operations

- The position of an EWP must be carefully assessed, in particular where there are overhead power lines or underground services. Prevailing wind conditions should also be considered.
- The stability of an EWP must also be carefully assessed for surface slopes, ground cavities and the condition of the ground surface. The positioning must ensure that access to the emergency retrieval system is maintained.
- The total weight of personnel, tools and material being loaded on the platform must not exceed the EWPs rated load capacity.
- Full safety harnesses must be worn by everyone on the platform of a boom-type EWP and be secured to the anchor point.
- Where there is a risk of a free fall, a fall-arrest harness designed for attachment to a lanyard assembly, including a personal energy absorber, must be worn by everyone on the EWP.
- Adequate barricades and signage must be installed, and exclusion zones established to keep pedestrians and vehicles at a safe distance.
- Base controls should not be used when personnel are on the platform, except in an emergency or for maintenance purposes. All EWPs must be fitted with an emergency retrieval system or be provided with auxiliary retrieval equipment to enable the safe evacuation of people from the platform.
- A competent person must act as a spotter and rescuer and remain in clear view of the operator at all times.

## 11.3 Ladders

UQ workers should consider whether an EWP or scaffolding would be safer and more efficient than the use of a ladder. They should ensure, so far as practicable, that ladders are primarily used as a means of access and not as a working base. Only one worker may be on a ladder at a time. Refer *16.11 Ladder Usage Safe Operating Procedure*.

Only appropriate, fit-for-purpose ladders should be used by UQ worker, domestic ladders must not be used. Organisational Units are responsible for ensuring that safe operating procedures are followed when ladders are used by UQ workers in their area and that ladders are regularly inspected and maintained (See *16.12 Ladder Inspection Checklist*)

Ladders should only be used:

- For minor tasks.
- For short periods of time.
- As a means of access and egress.

Ladders should not be used for:

- Any work that places the user at risk; or
- Any work where the user is higher than 2 metres above the ground. For heights greater than 2 metres above the ground, ladders should only be used for access and egress purposes.

Managers/Supervisors must ensure that workers do not use ladders if:

- Using metal tools or metal-reinforced ladders, while working on live electrical installations, unless both the tools and ladders are insulated; and
- The ladder fails an inspection and is found to be defective.

A person using a ladder must:

- Have at least three points of contact.
- If a fall arrest harness is used, it must not be attached to the ladder.

#### 11.3.1 Portable Ladders

Portable ladders primarily should only be used as a means of access or egress from a work area. In some cases they may be used as a work platform for light work and for short periods of time.

- Workers should be given appropriate information, instruction and supervision before using portable ladders.
- Industrial ladders that comply with Australian Standards and have a clearly displayed load rating of at least 120kg should be used.
- A risk assessment for the task that requires the use of ladders must be undertaken before commencement of work.

Any ladder used at a workplace must be set up on a solid and stable surface and so as to prevent the ladder from slipping. Single and extension ladders can be prevented from slipping by:

- Placing ladders at a slope of 4:1 and setting up stepladders in the fully opened position.
- Securing ladders at the top or bottom, or if necessary, at both ends.

Where fixed or extension ladders are used for access or egress, UQ workers must check that:

- There is a firm, stable work platform, free from obstructions, to step onto from the ladder.
- The ladder extends at least one metre above the stepping-off point on the working platform.
- Fall protection is provided at the stepping-off point where people access the working platform.

#### 11.3.2 Fixed Ladders

The Organisational Unit must ensure that fixed ladders are installed according to *AS1657 Fixed Platforms, Walkways, Stairways and Ladders – Design, Construction and Installation.* AS 1657 clearly specifies the safe distances (for example, 200 mm clearance between the ladder and any object at the back of the ladder), access and landings.

Fixed ladders with angles exceeding 75 degrees should have permanent or temporary fall-arrest systems (anchorage lines or rails) fitted onto them and workers should be provided with suitable full body harnesses. UQ workers must have the appropriate training in safety and rescue procedures.

## **11.4 Personal Protective Equipment (PPE)**

Personal Protective Equipment (PPE) must be used where determined to be an appropriate control measure, either in combination with other controls or as a stand-alone measure, through the risk assessment process or where stated in regulations.

To ensure PPE is properly maintained:

• Formal inspection and record system must to be established;

- All components are checked for wear and damage before and after every use;
- Damaged/worn equipment must be immediately removed from service and a 'Danger Do Not Operate' tag affixed, repaired or replaced;
- Body harness and associated equipment must be stored in a cool dry place away from direct sunlight, heat, humidity, chemicals and other causes of potential damage; and
- Manufacturer's advice on care, maintenance and inspection must be followed.

## 12. Implementation and Review

Head of Operational Units are responsible for implementing and operationalising this Plan, refer to *16.13 Work at height procedure and plan implementation review checklist*. Advice and assistance can be sought from the local HSW Managers and WHSCs to implement the requirements of this Plan. Heads of Organisational Units are responsible for providing resources (including budgets for equipment), and the local HSW team will assist UQ workers in the risk management process for work at height tasks and activities to meet the requirements of this Plan.

The Organisational Unit will review this Plan periodically and as required to ensure its accuracy, relevance and effectiveness. Review of the Plan will also be informed by feedback from UQ workers i.e. Managers, Supervisors and front line workers.

Periodic internal audits of compliance with this procedure will be conducted, which may include:

- The existence, adequacy and review of work at height risk assessments;
- Awareness of compliance obligations associated with this Plan;
- UQ workers work at height competency and refresher training documentation; and
- The review of any work completed by contractors and their compliance with this Plan.

WHSC will conduct regular inspections (at least annually) to review appropriate risk controls, including the review of the permits in the Organisational Unit. Managers and Supervisors will ensure that all work at height incidents and near misses are reported in UQSafe. They will ensure that non-compliance with this management plan are reported to the executive management.

The Managers and Supervisors will make sure that UQ workers under their supervision conducting work at height are suitably qualified and trained and have been informed of UQ Work at Height Management Plan and procedure.

## 13. Roles and Responsibilities

| POSITION                       | RESPONSIBILITY   |
|--------------------------------|--|
| Senior Management              | Allocate funding for the implementation of the UQ Work at Height Management Plan.  |
| Head of Organisational<br>Unit | Approve Organisational Unit Work at Height Management Plan.<br>Ensure Supervisors and Managers in their area are aware of the Plan and of<br>their duties in relation to the Plan and procedures.            |
| Supervisors and<br>Managers    | Ensure all UQ workers under their control are aware of and comply with the<br>Work at Height Management Plan.<br>Ensure maintenance is undertaken in accordance with this Work at Height<br>Management Plan. |

|            | Ensure all UQ workers carrying working at height are competent and trained to work at height.       |
|------------|---|
|            | Identify tasks and activities in their area of control that may require work at                     |
|            | height.   |
|            | Facilitate and contribute during the development of risk assessments.                               |
|            | Ensure equipment used for working at height is properly maintained and certified.                   |
|            | Ensure sufficient items of working at height equipment are available in the store.                  |
|            | When organising contractors ensure they have appropriate training and competence to work at height. |
|            | Complete action plans for any incidents.  |
| WHSC       | Assist the supervisors and managers in preparing risk assessments.                                  |
|            | Assist in the investigate of incidents.   |
|            | Audit effectiveness of the work at height management plan.  |
| UQ Workers | Not to work or access a roof or unprotected balcony.  |
|            | Contribute to risk assessments.   |
| Others     | Comply with the UQ Work at Height Management Plan.  |

## 14. References

- Work Health and Safety Act 2011
- Work Health and Safety Regulations 2011
- Managing the risk of falls at workplaces Code of Practice 2021
- How to manage work health and safety risks code of practice 2021
- Managing the risks of plant in the workplace code of practice 2021
- Managing the risks of falls at workplaces code of practice 2021
- AS/NZS 1657:2018 Fixed platforms walkways stairways and ladders Design construction and installation
- AS/NZS 1892.5:2020 Portable Ladders-selection, safe use and care
- Safe Work Australia Guidance material: Inspecting and maintaining Elevating Work Platforms January 2021

## 15. Definitions

**Competent person** – a person who has acquired through training, qualification or experience, or a combination of these, the training and knowledge and skills to carry out that task.

**Construction work** – means any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure.

**Elevating work platform (EWP)** – EWPs are powered mobile plant designed to lift or lower people and equipment by a telescopic, hinged or articulated device, or any combination of these, from a base support. EWPs are generally of either an articulated or boom-type variety. While EWPs come in a range of different configurations, the general types of EWP include:

- Self-propelled scissor lifts
- Self-propelled boom-type
- Truck-mounted
- Trailer-mounted.

Fall – a fall by a person from one level to another.

Fall arrest – plant or material work by a person designed to stop a person from falling to the ground.

**Fall prevention device** – any equipment that is designed to prevent a fall for temporary work at height, and once in place does not require any further adjustment by workers using the device, including:

- Secure fence
- Edge protection
- Working platforms
- Covers.

**Scaffold** is a temporary structure erected to support access or working platforms. Scaffolds are commonly used in construction work so workers have a safe, stable work platform when work cannot be done at ground level or on a finished floor.

**Scaffolding** means the individual components, for example tubes, couplers or frames and materials that when assembled form a scaffold. Scaffolding is classified as plant under Work Health and Safety (WHS) Act 2011.

**Scaffolding work** is erecting, altering or dismantling a temporary structure erected to support a platform and from which a person or object could fall more than 4 metres from the platform or the structure. Scaffolding work must be undertaken by a person holding the appropriate class of high-risk work licence.

Solid construction – means an area that has:

- a surface that is structurally capable of supporting all persons and things that may be located or placed on it;
- barriers around its perimeter and any openings to prevent a fall;
- an even and readily negotiable surface and gradient;
- a safe means of entry and exit.

Work at height – where there is a risk of falling from one level to another (e.g. falling from a step ladder).

**Work positioning system** – involves the use of equipment that enables a person to work supported in a harness in tension in such a way that a fall is prevented.

UQ workers – for the purposes of this procedure includes:

- Staff continuing, fixed-term, research (contingent funded) and casual staff;
- Contractors, subcontractors and consultants working under UQ systems and control (e.g. contingent workers);
- Visiting academics and researchers;
- Affiliates academic title holders, visiting academics, emeritus professors, adjunct and honorary title holders, industry fellows and conjoint appointments;
- Higher degree by research students; and
- Volunteers and students undertaking work experience.

# 16. Appendices

# 16.1 Checklist - identifying fall hazards and inspecting the workplace

| Where is the work being conducted?  |  |
|---|--|
| On any structure or plant being constructed or installed, demolished or dismantled, inspected, tested, repaired or cleaned. |  |
| On a fragile surface (for example, cement sheeting roofs, rusty metal roofs, fibreglass sheeting roofs and skylights).      |  |
| On a potentially unstable surface (for example, areas where there is potential for ground collapse).                        |  |
| Using equipment to work at the elevated level (for example, when using elevating work platforms or portable ladders).       |  |
| On a sloping or slippery surface where it is difficult for people to maintain their balance (for example, on glazed tiles). |  |
| Near an unprotected open edge (for example, near incomplete stairwells)   |  |
| Near a hole, shaft or pit into which a worker could fall (for example, trenches, lift shafts or service pits).              |  |
| Inspecting the workplace  |  |
| Surfaces:   |  |
| The stability, fragility or brittleness   |  |
| The potential to slip, for example where surfaces are wet, polished or glazed   |  |
| The safe movement of workers where surfaces change  |  |
| The strength or capability to support loads   |  |
| The slope of work surfaces, for example, where they exceed seven degrees.   |  |
| Levels:   |  |
| Change in levels where workers may be exposed to a fall from one level to another   |  |
| Structures:   |  |
| The stability of temporary or permanent structures  |  |
| The ground:   |  |
| The evenness and stability of the ground for safe support of scaffolding or a work platform                                 |  |
| The working area:   |  |
| Is the area crowded or cluttered  |  |
| Entry and exit from the working area is locked  |  |

#### Edges

| Protection for open edges of floors, working platforms, walkways, walls or roofs  |  |
|---|--|
| Holes, openings or excavations  |  |
| Hand grip—places where hand grip may be lost.   |  |
| Is advice needed from technical specialists, such as structural engineers, to check the stability of structures or load bearing capacity?   |  |
| Workplace Practices   |  |
| UQ workers undertaking work at heights has been given information, instruction and training before they are authorised to commence work. This includes an understanding of risk management documentation. |  |
| Communication to workers detailing the working at height requirements of this plan has been completed   |  |
| UQ workers undertaking work at height have been provided with belt/box to carry bolts, nuts and hand tools.   |  |
| Arrangement have been made for fastening hand tools.  |  |
| Inspections of plant and machinery occur prior to work commencing.  |  |
| Maintenance and repair programs are recorded, reported and reviewed regularly to ensure their effectiveness.  |  |
| Walkways, aisles and all overhead workplaces cleared of loose materials.  |  |
| PPE provided.   |  |
| Staff are supervised where required to ensure that safe work practices are adhered to   |  |
| Control measures are used and are effective.  |  |
| Authority to access heights is documented and includes evidence of local induction, training, instruction and/or competency.  |  |
| Unauthorised height access is blocked.  |  |
| Access to any equipment used to work higher than two metres is restricted.  |  |
| Equipment is designated as authorised use only.   |  |
| Safety signage is displayed where required  |  |

## **16.2** Considerations when assessing the risks of fall hazards

| How to assess the risk  |  |
|---|--|
| When assessing the risks arising from each fall hazard, the following matters should be considered:   |  |
| The design and layout of elevated work areas, including the distance of a potential fall  |  |
| The number and movement of people at the workplace  |  |
| Workers close to unsafe areas where loads are placed on elevated working areas (e.g. loading docks)   |  |
| Work to be carried out above people   |  |
| Risk of falling objects   |  |
| Inspections and maintenance of plant and equipment is adequate  |  |
| Area is well lit  |  |
| Weather conditions are good (the presence of rain, wind, extreme heat or cold may cause slippery or unstable conditions)                        |  |
| Footwear and clothing is suitable for the conditions  |  |
| Ladders suitable for the task   |  |
| Current knowledge and training to perform the task safely is adequate (e.g., young, new or inexperienced workers may be unfamiliar with a task) |  |
| Procedures are adequate for potential emergency situations  |  |

## **16.3** Hierarchy of Control for Fall Hazards

The fall from heights hierarchy of control is:

Level 1 Elimination: Eliminate the hazard by performing the work on the ground or on a solid construction.

Level 2 Substitution:

**Level 3 Engineering Controls:** Use a work positioning system; Use a passive fall prevention device, e.g. edge protection which prevents falls.

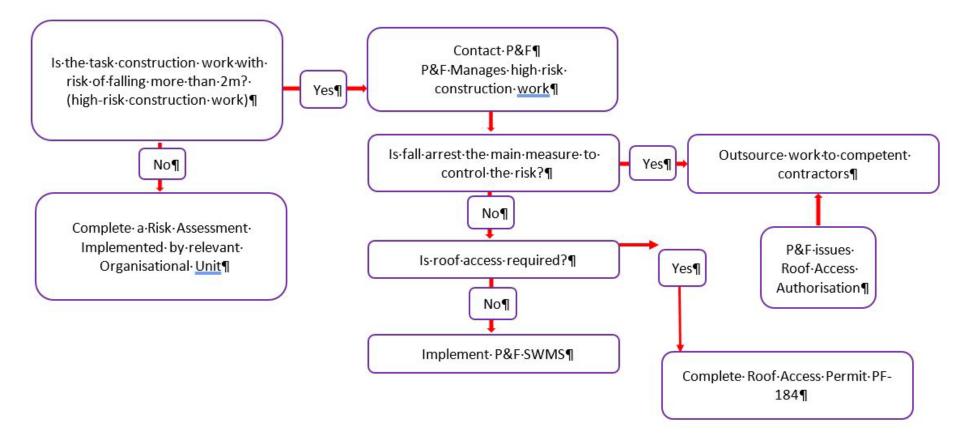
Level 4 Administrative controls: Implement safe operating procedures, signage, training and induction.

**Level 5 PPE:** Use a fall arrest system e.g. a harness, which does not eliminate a fall, it only controls the distance of fall, preventing the person falling to the ground.

## **16.4** Work at height safety controls inspection schedule

| Location:         |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|-------------------|-----------------------|-----------|--|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| Equipment/Control | Type of<br>Inspection | Frequency | Comment / Basis of<br>frequency choice | January | February | March | April | May | June | July | August | September | October | November | December |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |
|                   |                       |           |  |         |          |       |       |     |      |      |        |           |         |          |          |

## **16.5 UQ Decision Tree for working at heights**





YES NO N/A

## 16.6 Safe Scaffold Checklist

| SCAFFOLD VICINITY  | YES | NO | N/A |
|--|-----|----|-----|
| Has protection for other workers been provided? (Clear zones, screens etc.)  |     |    |     |
| Have sufficient safeguards against overhead electric lines been provided?  |     |    |     |
| Is there sufficient control over vehicle/mobile plant movement?  |     |    |     |
| Is there sufficient control over crane operation(s)?   |     |    |     |
| Are there sufficient controls for the storage, handling and use of hazardous substances?                             |     |    |     |
| Are scaffolds erected a safe distance away from trenches or excavations?   |     |    |     |
| SUPPORTING STRUCTURE   | YES | NO | N/A |
| Is the supporting structure in good condition?   |     |    |     |
| Does the supporting structure have adequate strength?  |     |    |     |
| Are there sufficient controls to prevent deterioration of the supporting structure?                                  |     |    |     |
| Are all measures to strengthen the supporting structure adequate?  |     |    |     |
| Is the risk of the supporting structure being overloaded from other sources adequately controlled?                   |     |    |     |
| Is the scaffold built on solid ground? If built on soft ground, are soleboards used to properly distribute the load? |     |    |     |
| SOLEBOARDS AND BASEPLATES  | YES | NO | N/A |
| Are there sufficient soleboards?   |     |    |     |
| Are the soleboards of suitable material and in a serviceable condition?  |     |    |     |
| Are the soleboards secure?   |     |    |     |
| Are there sufficient baseplates?   |     |    |     |
| Are the baseplates of the appropriate type?  |     |    |     |
| Are the baseplates serviceable and of suitable dimensions?   |     |    |     |
| Are the baseplates secure?   |     |    |     |

#### SCAFFOLD STRUCTURE

Are the standards bearing firm?



| Are the standards plumb (or as designed)?  |     |    |     |
|--|-----|----|-----|
| Are the longitudinal standard spacing's correct?   |     |    |     |
| Are the transverse standard spacing's correct?   |     |    |     |
| Are the joints in standards correctly positioned?  |     |    |     |
| Are the joints in standards correctly secured (special duty or hung scaffold)?             |     |    |     |
| Are the ledgers level (or as designed)?  |     |    |     |
| Are the ledgers continuous (or as designed)?   |     |    |     |
| Are the lift heights correct?  |     |    |     |
| Are the horizontal ledger spacing's correct?   |     |    |     |
| Are the ledgers correctly secured?   |     |    |     |
| Are ledger joints correctly positioned (tube and coupler scaffold)?                        |     |    |     |
| Are the joints in ledgers correctly secured (tube and coupler scaffold)?                   |     |    |     |
| Are there sufficient transoms/putlogs?   |     |    |     |
| Are the transoms/putlogs correctly positioned and secured?                                 |     |    |     |
| Is the bracing adequate?   |     |    |     |
| Is the scaffold sufficiently stable?   |     |    |     |
| Are the ties correctly positioned and correctly fixed?                                     |     |    |     |
| PLATFORMS  | YES | NO | N/A |
| Does the scaffold have the required number of working platforms?                           |     |    |     |
| Are the working platforms at the required locations?                                       |     |    |     |
| Are catch platforms correctly positioned?  |     |    |     |
| Are the platforms and supporting scaffold constructed for the appropriate duty live loads? |     |    |     |
| Are the platform dimensions suitable for the intended work?                                |     |    |     |
| Is there adequate edge protection?   |     |    |     |
| Are the platforms correctly constructed?   |     |    |     |
|  |     |    |     |

Are planks secured against wind?



| ACCESS AND EGRESS   | YES NO N/A |
|---|------------|
| Is there safe access and egress to every scaffold platform?                       |            |
| Are temporary stairways correctly installed?                                      |            |
| Are portable ladders of an industrial grade, serviceable and correctly installed? |            |
| Are access ways and access platforms correctly installed?                         |            |
| CONTAINMENT SHEETING  | YES NO N/A |
| Has the scaffold been designed for wind loading on any containment sheeting?      |            |
| Are the fixing ties secure?   |            |
| Are there any rips or tears?  |            |
| Are the overlap joints satisfactory?  |            |
| GENERAL FIT FOR PURPOSE   | YES NO N/A |
| Is there adequate provision for material handling?                                |            |
| Are the clearances between the scaffold and adjacent structures correct?          |            |
| Is there adequate protection from falling debris?                                 |            |
| Lies the seeffeld been adequately designed to support all attachments?            |            |

Has the scaffold been adequately designed to support all attachments?

Are all approaches and platforms effectively lit?



## **16.7 EWP Safe Operating Procedure**

| Safe Operating Procedure (SOP) |                        |            |      |                 |            | THE UNIVERSITY |
|--------------------------------|------------------------|------------|------|-----------------|------------|----------------|
| Document I.D                   |                        | Version    | 0    | Version Date    | 11/09/2020 | OF QUEENSLAND  |
| Title                          | Safe Operating Procedu | re (SOP) f | or M | obile EWP/Sciss | or Lift    | CREATE CHANGE  |

Do Not use unless competent and authorised. If the EWP has the capacity to go over 11 metres, the operator must be the holder of a National Licence to Perform High Risk Class WP. Do not work alone – use a spotter.

| Personal Protective Equipment                  |              |  |   |  |  |
|--|--------------|--|---|--|--|
|  | <b>L</b>     |  |   | ∅  |  |
| As required – EWP or<br>Scissor lift operation | At all times | As required - inherent<br>risk of sharp or hot<br>surfaces | As required – around<br>mobile plant or<br>overhead works | As required around<br>moving traffic or mobile<br>plant or equipment |  |

#### Potential Hazards & Injuries

- ★ Structural failure due to overload, damage in transit or during use
- Overturning due to overload, unstable ground, slopes, high wind etc.
- Contact or collision with other plant, structures, power lines etc.
- ★ Falls from height
- ★ Falling objects
- ★ Sprains/Strains

#### Work Site inspections

- Drop-offs, holes, slopes, bumps, floor obstructions and debris
- Overhead obstructions and high voltage conductors
- Hazardous locations and atmospheres
- Potential sources of entanglement
- Wind and weather conditions
- Presence of unauthorized people
- Other possible unsafe conditions
- Inadequate surface and support to withstand all load forces
- Presence of unauthorized people

#### Pre Operational Safety Checks

- Complete the worksite inspection
- Establish a barrier around your work area
- Ensure you establish a clear communication strategy
- Wear PPE that is appropriate for the task
- Maintain safe clearances from electrical power lines
- Operating personal safety protective devices & emergency controls
- Placards, warnings, control markings and operating manual
- EWP parts including air/hydraulic hoses, cables, loose parts, tires, wheels, outriggers, stabilizers and guard rails (Refer to manufacturer's manual/instructions for detailed understanding)

#### Operational Safety Checks

- Ensure all tools and equipment cannot be dropped over the side
- Never anchor or attach EWP to permanent structure while working
- Never use the EWP to push/pull objects or use as a lifting device
- Never climb down elevating assembly if platform fails to lower
- Only one designated person should operate the controls
- All loads must be stored within the platform perimeter
- If malfunction is suspected, all work must be suspended
- Follow manufacturer start and shutdown process



#### Do Not

- X Do not exceed rated load
- Do not commence operations without completing the pre-start inspection
- Do not use if EWP is not working properly or if any part is damaged, worn or missing
- Do not drive onto uneven soft surfaces or slopes when platform is elevated
- Do not use without handrails, chain or bar in place
- Do not stand on, sit or work outside of guardrails
- Do not raise the platform in windy, gusty or stormy conditions
- Do not stand on handrails or lean/reach out of platform
- Do not use ladder, scaffolding, or other devices to increase size or working height of platform
- Do not Exit platform once elevated

Note: This SOP may not cover all hazards associated with EWP and should be used in conjunction with other reference material, such as SWMS. It is a guide only used to supplement training. It's a reminder to workers prior to EWP use.



# 16.8 Elevating Work Platform (EWP) - Pre-operational inspection checklist

| Items to be checked  | Pass | Fail | N/A |
|--|------|------|-----|
| Visual inspection for signs of cracks, distortion or excessive wear                              |      |      |     |
| Adjustable components are within the recommended range   |      |      |     |
| Operates smoothly  |      |      |     |
| Controls return to off position when released  |      |      |     |
| Clean and free of debris   |      |      |     |
| Interlocks function as designed  |      |      |     |
| No sign of fluid leaks   |      |      |     |
| Decals, warning signs, operator manual and log books are in place and legible                    |      |      |     |
| Fluid levels are within specified range  |      |      |     |
| EWP is properly lubricated   |      |      |     |
| Pin locking devices in place   |      |      |     |
| Hoses and cabling correctly fixed  |      |      |     |
| No loose wiring or connections   |      |      |     |
| Tyres are inflated to the recommended pressure, or are solid tyres                               |      |      |     |
| Tyres are in good condition and without damage   |      |      |     |
| Batteries are charged  |      |      |     |
| Ground controls override platform controls   |      |      |     |
| Emergency controls and retrieval system are operational  |      |      |     |
| Integrity of guard rails and self-closing gates checked  |      |      |     |
| Pre-operational inspection reports should contain:   | Yes  | No   |     |
| Components to be inspected and function tested – indication that the components have been tested |      |      |     |
| Any defects identified and action undertaken   |      |      |     |



Defects identified and action:

Date of inspection:

Name of the competent person:

Signature:



## **16.9** Elevating Work Platform (EWP) routine inspections checklist

| Component   | Visual inspection | Functional test |  |  |  |
|---|-------------------|-----------------|--|--|--|
| Operator manual   |                   |                 |  |  |  |
| Log-book  |                   |                 |  |  |  |
| Structural defects  |                   |                 |  |  |  |
| Tyres and wheels  |                   |                 |  |  |  |
| Placards, warnings and control markings   |                   |                 |  |  |  |
| Air, hydraulic or fuel leaks  |                   |                 |  |  |  |
| Cables and wiring (security and damage)   |                   |                 |  |  |  |
| Loose or missing components   |                   |                 |  |  |  |
| Controls – base and platform  |                   |                 |  |  |  |
| Control descent devices (where fitted)  |                   |                 |  |  |  |
| Alarms – visual and audible   |                   |                 |  |  |  |
| Emergency controls and retrieval system   |                   |                 |  |  |  |
| Brakes  |                   |                 |  |  |  |
| Slew brake function   |                   |                 |  |  |  |
| Outriggers and stabilisers  |                   |                 |  |  |  |
| Guard rails and self-closing gates  |                   |                 |  |  |  |
| Safety switches and interlocks  |                   |                 |  |  |  |
| Operation of drive functions  |                   |                 |  |  |  |
| Routine inspection reports should contain:  |                   | ·               |  |  |  |
| Components to be inspected, and function tested – indication that the components have been inspected or tested: |                   |                 |  |  |  |

Any defects identified and action undertaken:

Date of inspection and the signature of the competent person:



# 16.10 Elevating Work Platform (EWP) periodic and major inspections checklist

| Items to be checked   |
|---|
| Operation and safety manuals  |
| Decals and warnings are secure and legible                            |
| Modifications   |
| Condition of structure and welds                                      |
| Fasteners, pins shield and covers                                     |
| Hoods and gas struts  |
| Stub axle   |
| Turret  |
| Manufacturer's safety upgrades  |
| Function controls   |
| Platform controls   |
| Ground controls   |
| Function control detents  |
| Guards for controls   |
| Function enable control (deadman)                                     |
| Emergency stop switches (ground and platform)                         |
| Function limit, cut out switches, interlocks and other safety devices |
| Manual descent or auxiliary power                                     |
| Foot switch   |
| Capacity limiter  |
| Drive brakes  |
| Slew brakes   |
| Platform  |



| Guard rails                                       |
|---|
| Gates – self closing                              |
| Floor   |
| Anchors for lanyard                               |
| Rotator   |
| Scissor mechanism                                 |
| Scissor arms                                      |
| Arm safety stop                                   |
| Cylinder pins, pivot pins and securing components |
| Arm pins, wear pads and securing components       |
| Chassis assembly                                  |
| Side compartment door assembly                    |
| Static strap                                      |
| Wheel and tyre assemblies                         |
| Drive motors                                      |
| Pothole protection system                         |
| Platform ladder                                   |
| Wheel bearings                                    |
| Oscillating axle lockout cylinder system          |
| Outrigger or stabilisers                          |
| Extendable axle system                            |
| Drive hubs  |
| Pedestal  |
| Boom assembly                                     |
| Boom welds  |
| Hose and cable carrier installation               |



| Sheaves and sheave pins   |
|---|
| Bearings  |
| Wear pads   |
| Slew bearing or worm gear   |
| Oil coupling  |
| Slew drive system   |
| Insulation inserts  |
| Power system  |
| Batteries fluid   |
| Battery charger   |
| Hydraulic and electric systems  |
| Hydraulic lift/steer pump   |
| Hydraulic cylinders (arms and steering)   |
| Steer cylinder attachment pins and pin retainers  |
| Hoses, lines and fittings   |
| Hydraulic tank, cap and breather  |
| Fluid   |
| Oil filter  |
| Electrical connections and wire looms are not loose   |
| Instruments, gauges, switches and horn  |
| Periodic and major inspection reports should contain:   |
| Date of commencement of inspection:   |
| Date of completion of inspection:   |
| Component inspected   |
| Inspection method for each component or assembly  |
| Inspection criteria, result, status (acceptable/not acceptable) and comments (e.g. replace, repaired) |



Details of repair, repair procedures, tests and replacements

Details of functional and other tests

Observations and recommendations relating to future maintenance and inspections

Contact details of the

Name of the competent person, their qualifications, contact details and signature.



## 16.11 Ladder Usage Safe Operating Procedure

|              | Ladder Usage                |        |       |              |            |               | THE UNIVERSITY |
|--------------|-----------------------------|--------|-------|--------------|------------|---------------|----------------|
| Document I.D | Ver                         | rsion  | 0     | Version Date | 11/09/2020 | ${ \bigcirc}$ | OF QUEENSLANI  |
| Title        | Safe Operating Procedure (S | SOP) f | or La | idder Usage  |            | С             | REATE CHANGE   |

#### Do Not use unless competent and authorised.

| required – around<br>obile plant or | As required around<br>moving traffic or mobile<br>plant or equipment |
|-------------------------------------|--|
|                                     |  |

#### **Potential Hazards & Injuries**

- ★ Falls from height
- Falling objects
- + Sprains/strains
- 🖌 Awkward posture

#### Work Site inspections

- Check workspaces and walkways to ensure no slip/trip-hazards are present
- Establish an exclusion zone beneath the area where overhead work is to be undertaken
- Consider whether a second person is needed to assist in securing the ladder (Extension ladders)
- Keep the work area in a safe, clean and tidy state.

#### Pre Operational Safety Checks

- Ensure that Ladder is rated as 'industrial' with a load rating of at least 120kg
- Ensure Ladder is fit for purpose i.e. fibre glass ladder is used for electrical work
- Familiarise yourself with the safety instructions on the ladder.
- Wear slip-resistant footwear.
- Keep ladder clear of live wires, electrical hazards and ceiling fans.
- When transporting your ladder check for overhead power lines, live wires, service cabling or electrical hazards.
- Carefully inspect your ladder to ensure there are no worn parts or damage before climbing:
  - joints between steps and side rails tight, all fittings secure, moving parts operate freely
  - rungs and platform are free of paint splatter, grit, oil and grease, welds are intact, and
  - All components of ladder intact including side rails, rungs, platform, feet, hand grip.

If any component is found to be worn or damaged, rectify any faults before use.

- Ensure that spreaders are fully extended prior to use.
- Ensure that the ladder is correct height for the task to avoid overreaching or stretching.
- Regularly check ladder feet for wear.

#### **Operational Safety Checks**

Complete as much of the task at ground level as possible

- Ensure the ladder is placed on dry, firm, level ground/floor and is in stable position.
  - Ladder is at least 0.9m above access point (Extension Ladder)
- Ladder is set-up to be at an angle of 4:1 (i.e. up 4m, out 1m) (Extension Ladder)
- Check for overhead hazards before climbing.
- Always Maintain three points of contact with the ladder
- Undertake work facing the ladder
- Use a tool bag or tool belt to help to keep hands free
- Work within an arm's reach to avoid falling sideways
- Always descend the ladder prior to moving the ladder do not 'walk' the ladder.
- Only one person is permitted on the ladder at any time. A second person may stand alongside the ladder and help to steady it, or pass materials/tools up if required.
- Be mindful of your concentration and fatigue level. Avoid becoming overconfident when using ladders during repetitive tasks.

#### Do Not

- X Do not exceed rated load
- Do not commence operations without completing the pre-start inspection
- Never wear sandals, high heels or flip-flops. Wear appropriate clothing (e.g. no loose or flapping clothing, or clothing that restricts movement when climbing
- Do not use if affected by a medical condition or medication.
- X Do not use a ladder if the spreader is missing, lose or damaged.
- Do not stand on the top cap as you may lose your balance
- Do not over-reach when using the ladder ensure your body is centred within the foot area of the ladder.
- X Do not use any power tools designed to be operated with two hands
- Do not stand on the top step.
- Do not climb from one ladder to another.
- Do not use ladders as trestles as they are not designed for this type of use.
- Never use a closed stepladder as a non-self-supporting ladder (e.g. leaning against a wall)
- X Do not lift heavy weights that unbalance the ladder.
- Do not 'walk' the ladder while on it. Always get off to shift position.

Note: This SOP may not cover all hazards associated with EWP and should be used in conjunction with other reference material, such as SWMS. It is a guide only used to supplement training. It's a reminder to workers prior to EWP use.



## 16.12 Ladder Inspection Checklist

| General Information   |                                |                    |                             |                          |  |  |
|---|--------------------------------|--------------------|-----------------------------|--------------------------|--|--|
| Type of Ladder  | Portable                       |                    | Non-self-Supporting         |                          |  |  |
|   |                                | porting            | Other                       |                          |  |  |
| Construction of ladder  | Wood F                         |                    | Fiberglass                  | Fiberglass               |  |  |
|   | Metal                          |                    | Aluminium                   |                          |  |  |
| Length  |                                |                    |                             |                          |  |  |
| Class   | Type IAA (Extra Heavy<br>Duty) |                    | Type I<br>(Heavy<br>Duty)   | Type III (Light<br>Duty) |  |  |
|   |                                | (Extra Heavy Duty) | Type II<br>(Medium<br>Duty) | Other                    |  |  |
| Weight Supported  | Yes                            |                    |                             |                          |  |  |
| Ladder Inspection   |                                |                    |                             |                          |  |  |
| Free from dents, cracks and damages                           | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Feet of ladder work properly and have slip-<br>resistant pads | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Rung locks and spreader braces and working                    | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Side rails have no signs of deterioration, dents and rusts    | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Bolts and rivets are secured                                  | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Rope is undamaged   | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Steps and rungs are free from oil, grease and other materials | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Ladder stored properly (when not in use)                      | Yes                            | No                 | N/A                         | Comments                 |  |  |
| Other defects observed  |                                |                    |                             |                          |  |  |



| Take a photo of defects                  |      |              |            |
|--|------|--------------|------------|
| Overall Rating                           | Good | Needs Repair | Do not Use |
| Recommendations                          |      |              |            |
| Full Name and Signature of the Inspector |      |              | Sign:      |
|  |      |              | Date:      |



# 16.13 Work at height procedure and plan implementation review checklist

| Item   | Yes | No | N/A | Comments |
|--|-----|----|-----|----------|
| Is a management of change process incorporated in the Plan and its implementation?   |     |    |     |          |
| Is a communication system in place to<br>coordinate with all the relevant personnel about<br>the implementation of the procedure and Plan? |     |    |     |          |
| Have all affected personnel received adequate<br>and appropriate training on the new procedures<br>and Plan?                               |     |    |     |          |
| Is the training documented?  |     |    |     |          |
| Is information, notices, etc. for providing operational instructions, safety warnings, and emergency information provided?                 |     |    |     |          |
| Are notices and signage positioned so they are clearly visible and easily read?  |     |    |     |          |
| Is there an agreed inspection program for the review of the procedures and Plan?   |     |    |     |          |
| Are all of the applicable permits in place?  |     |    |     |          |
| Are UQ workers properly trained on the permits?  |     |    |     |          |
| Have emergency procedures been prepared and relevant personnel trained?  |     |    |     |          |