WORKING AT HEIGHTS PROCEDURE v1

WHS-PRO-036

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1 PURPOSE

The purpose of this procedure is to outline the controls in place to control the hazards in relation to falls from height, and to maintain a safe environment for workers, customers and other stakeholders.

2 SCOPE

This document shall apply to all personnel, contractors and visitors at any Mawsons owned site, as well as all Mawsons personnel and contractors at any site whilst working for Mawsons.

3 DEFINITION

In New South Wales, working at heights is defined as working in any area where a fall by a person from one level to another is reasonably likely to cause injury to that or another person.

In Victoria a fall means a person's involuntary fall of more than 2 metres.

This procedure is to be read with this in mind, it is to be applied in workplaces in each state where the condition meeting the definition of a fall or working at heights is met.

4 CONTROLS

Whenever work at heights is required to be conducted, as assessment must be undertaken to determine the most effective control to eliminate or minimize the risk of a worker falling from height.

Workers shall assess the controls below which are listed in order from most effective – Working on the ground to least effective – Individual fall arrest systems.

Where a higher level control is identified as being able to be implemented, and it is practicable to do so, the higher level control must be used over lower level controls.

4.1 WORKING ON THE GROUND

An assessment shall be undertaken to determine if it is practicable to undertake the work, or part of the work at ground level.

This may be achieved by lowering non fixed conveyors, building pads to work off, or lifting items out of situ to work upon.

4.2 WORKING FROM SOLID CONSTRUCTION

The second most effective control when working at heights, is to work within solid construction. Solid construction is defined as an area where:

- The surface is structurally capable of supporting workers, materials and tools.
- Has suitable barriers around the perimeter and all openings
- Is flat or has an easily negotiable gradient
- Has safe entry and exit.

Examples of working on solid construction include:

- Platforms enclosed by guardrails.
- Walkways with guardrails.

4.3 WORKING FROM SCAFFOLDING

Scaffolds offer effective protection in preventing falls.

There are specific requirements under legislation for scaffolds with a fall risk of more than 4m:

- A scaffold must be inspected by a competent person:
    - Before initial use. A written confirmation must also be completed by the competent person.
    - Before use if an event or incident occurs that may affect the stability of the scaffold.
    - Before use after any repairs have been undertaken.
    - At least once every 30 days.
- If a scaffold has been deemed a risk to health and safety, repairs must be carried out and inspections must be undertaken by a competent person before use is resumed.
- Unauthorised access is prevented on all scaffolding that is incomplete and unattended.

Prefabricated scaffolding must be registered with the state safe work authority before use.

The following must be considered when working from scaffolds:

- Scaffold is assembled by trained and competent personnel.
- Scaffolding components are not mixed unless approved by the scaffold manufacturer.
- Safe access systems are provided to the scaffold.
- All edges of the scaffold are protected by guard rails, mid rails and toe boards.
- Persons using scaffold are trained in the risks of using scaffold.

4.4 WORKING FROM AN ELEVATED WORK PLATFORM (EWP)

Elevated work platforms (EWP's) include scissor lifts and boom type lifts. They may be self- propelled or trailer mounted.

When using EWP's the following must be considered:

- The EWP must be suitable for the terrain eg:
    - EWP's designed for indoor use cannot be used outdoors.
    - EWP's must be matched to terrain types.
- Weather conditions must be taken into account.

- EWP's must be set up on firm ground that allows for stability controls to use used – eg outriggers.
- Any overhead hazards such as powerlines and structures must be identified and controls put in place to ensure they do not pose a risk.
- Persons can not enter or exit the EWP unless the EWP is safely lowered to ground level.
- If the floor of the EWP can reach over 11m, all persons using the EWP must hold the correct high risk work licence.
- EWP's cannot be overloaded, the weight of all persons, tools and equipment in baskets must be taken into account.

4.5 WORKING FROM A WORK PLATFORM

Work platforms should only be used in situations where higher level controls cannot be implemented.

Work platforms consist of a platform surrounded by edge protection, and are designed to be supported from underneath or by the side by forklifts or other mechanical devices.

Work platforms have several critical safety precautions that must be observed during use, these include:

- Ensuring the work platform is designed for the task.
- Ensuring the work platform is securely attached to the machine supporting it, using methods designed by the original equipment manufacturer.
- The work platform is never lifted above any person, and that no person can enter the space underneath the platform.
- An effective communication method between person/s in the work platform and the machine operator.
- The machine operator remains at the controls of the supporting machine at all times.
- That all work platforms and supporting machine are inspected prior to use.
- Person may only enter or exit the work platform when lowered to ground level with the supporting machine safely parked.
- Any access gates are securely shut when work platform is raised.

4.6 USE OF PERIMETER GUARDRAILS

Perimeter guardrails are non-permanent guardrails that can be lifted or installed along exposed edges to prevent falls from heights.

Some examples of perimeter guardrails can include:

- Rails installed on roof edges prior to work.
- Rails installed on screen decks before access.
- Pull up handrails installed on top of cement tankers.

Guard rails should have top and mid rails and be fitted with toe boards.

4.7 WORK RESTRAINT SYSTEMS

Work restraint systems consist of a harness worn by a worker, connected to a anchorage or horizontal lifeline. It works by the length of the harness being short enough to restrict the worker from bring able to reach an unprotected edge.

4.8 INDIVIDUAL FALL ARREST SYSTEMS

Individual fall arrest systems consist of harnesses connected by shock absorbing lanyards to anchor points. They work by safely stopping a worker from falling an uncontrolled distance and reducing the impact of a fall.

Individual fall arrest systems are a last resort and are only to be used once all other controls have been deemed as not practicable.

Workers must be trained in the use of individual fall arrest systems, and all fall arrest equipment must be inspected before use.

All anchor points must be fit for purpose and designed for the task.

Correct length lanyards must be selected to ensure workers cannot reach the ground. Swing radiuses of the lanyards must be taken into account to ensure workers do not strike nearby objects.

Before using fall arrest systems, a means of emergency rescue must be assessed to ensure that a suspended worker can be retrieved quickly before suspension trauma sets in.

5 REQUIREMENTS

5.1 WORKING AT HEIGHTS PERMITS

Before commencing work at heights a working at heights permit shall be completed, the permit shall outline the task being undertaken, as well as the controls being utilised.

The site manager is responsible for ensuring that working at heights permits are completed. The site manager shall give authority for work to be carried out, and additionally shall sign the permit to complete issue of the permit.

The manager shall develop a task specific rescue plan based on the area and task being completed. An overarching emergency plan is detailed in section 6 of this document, it should be used as the basis of the rescue plan, with modification specific to the site, and equipment available.

5.2 TASK PROCEEDURES

Procedures (SOP's) shall be followed for all working at heights task. Where an SOP does not exist for a task, a generic SWMS shall be reviewed and modified. If a generic SWMS does not exist for the task, a SWMS shall be completed by the workers and site manager undertaking the task.

Should a SOP or SWMS be found to be incorrect or requiring review to control the risk of a fall from height, the worker identifying the need for review shall lodge an O4i under the improvement category.

The WHS team shall contact the person lodging the O4i and the site manager to undertake the review.

5.3 FALL ARREST EQUIPMENT INSPECTIONS

Fall arrest equipment shall be inspected on a six monthly basis by the company lifting equipment contractor.

The site manager shall be responsible for arranging the inspection, and the inspection report shall be lodged on the site filing cabinet on Mawcentral by the site manager.

6 EMERGENCY PROCEDURE

6.1 WORKER FALLING FROM HEIGHT

In the event that a worker falls from height, implement the following steps:

- Enact the site Emergency Plan.
- Immediately call 000 and request emergency services – this needs to be done immediately, even if the worker appears uninjured.
- If the worker is conscious, assess their injuries and provide first aid as necessary.
- If the worker is unconscious, do not move them unless they are in immediate danger.
- Advise the Regional Manager and WHS Compliance and Wellbeing Manager who can make relevant internal and external notifications.
- Once emergency services arrive, provide them with all relevant information, such as the location of the incident, the worker's injuries, and any other hazards at the scene.
- Following the event lodge an O4i and comply with the company incident management process.

6.2 WORKER SUSPENDED IN A FALL ARREST SYSTEM

In the event that a worker falls from height and is suspended in a fall arrest system:

- Enact the site Emergency Plan.
- Do not attempt to rescue the worker yourself. This is a dangerous task that should only be performed by trained professionals.
- Call 000 and request emergency services – “Fire and Rescue”, this agency has the specialized equipment and training necessary to rescue workers who are suspended in a fall arrest system.
- Inform emergency services of the rescue equipment available on site over the telephone, follow any advice or guidance provided.
- Advise the Regional Manager and WHS Compliance and Wellbeing Manager who can make relevant internal and external notifications.
- Encourage suspended workers to try and move their legs in the harness, if the harness is fitted with relief straps, have the worker release these, put their feet in them and push against them.
- Suspended workers should try and get their legs as high as possible and their heads as close to horizontal as possible.
- Encourage suspended workers to pump their legs if they can to maintain blood flow.
- Once emergency services arrive, they will be able to rescue the worker safely.
- If the worker is conscious, keep them calm and reassure them that help is on the way.
- If the worker is unconscious, do not move them unless they are in immediate danger.
- Once the worker is rescued, they must be assessed by a medical professional.
- Following the event lodge an O4i and comply with the company incident management process.

During a fall event, several things occur that can lead to suspension trauma. Because the worker is suspended in an upright position with his/her legs hanging, blood begins to accumulate in the legs. This is commonly called venous pooling (the accumulation of too much blood in the veins) which reduces the flow of oxygenated blood to the heart and brain.

Additionally, in a post-fall suspension event, the leg straps on a worker’s safety harness can exert pressure on veins in the legs, compressing them and further reducing blood flow back to the heart.

Rescuers must be aware that post rescue death can occur if a victim is moved to rapidly to a horizontal position, this may allow a large volume of deoxygenated blood to move to the heart quickly.

It is important to know the warning signs associated with suspension trauma. They include faintness, breathlessness, sweating, paleness, hot flashes, increased heart rate, nausea, dizziness, unusually low heart rate, unusually low blood pressure and loss of vision.

7 REVIEW

This procedure will be reviewed in accordance with Safety Management Systems audit and review protocol with review intervals not exceeding 3 years, unless an event occurs requiring review before this period of time, such events may be:

- An incident involving work at height.
- Regulator interaction.
- Change in legislation.
- Identified gap in procedure.

Periodic review will address the minimum requirements for review and audit as follows:

- Ensure the plan is relevant and is current to the operation;
- Is compliant with current legislative requirements;
- The system is being audited within the review protocol; and
- Adequate resources to maintain a safe operation.

8 LEGISLATION

Work Health and Safety Act 2011 (NSW)
Work Health and Safety Regulation 2017 (NSW)
Work Health and Safety (Mines and Petroleum) Act 2013 (NSW)
Work Health and Safety (Mines and Petroleum) Regulation 2022 (NSW)
Code of Practice – Managing the Risk of Falls at Workplaces (NSW)
Occupational Health and Safety Act 2004 (Vic)
Occupational Health and Safety Regulations 2017 (Vic)

8 DOCUMENT HISTORY

Revision	Date	Amended By	Reason for Change
1	07/02/2022	Simon Taylor	Document created - Milbrae document.
1	20/06/2023	Simon Taylor	Emergency procedures added, definitions added, additional permit details added. Changed to Mawsons format.V1 on Mawsons system