WORKING AT HEIGHTS PROCEDURE

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1 Purpose

This Procedure outlines the minimum mandatory requirements for working at height as well as general considerations. As a principle, personnel shall not be exposed to the risk of falling from height or being hit by a falling object associated with work at height.

2 Scope

The requirements of this Procedure are mandatory for all works on Mid West Ports Authority (**MWPA**) controlled land. This Procedure does not extend to work conducted on leaseholder sites unless that work impacts on MWPA controlled areas / personnel outside the lease area.

3 Roles and Responsibilities

Role	Responsibility
Maintenance Planner / Maintenance Superintendent	MWPA personnel who ensure that a register of fall protection equipment including fixed anchor points is maintained and required maintenance checks are scheduled and conducted in accordance with AS/NZS 1891.4 Industrial fall-arrest systems and devices.
Maintenance Superintendent / Supervisor Operations Superintendent / Supervisor Wharf / Marine Superintendent Duty Wharf Supervisor	MWPA person with relevant qualification or experience to review the activities described in the permit prior to approval. Ensure the mandatory requirements to manage the works are in place and the work can proceed.
Permit Coordinator	MWPA person who coordinates the permit application process and ensures that the activities can be managed, so as not to impact other Port users.
Permit Owner	Person who is undertaking the work at height task and completes the initial permit request. Permit owners are responsible to ensure the permit requirements are adhered to during the work activity.
Site Supervisor	Person who is in charge at the worksite and supervises the activity, ensuring the minimum requirements are met while the work at height activity is undertaken.
Work Health and Safety Advisors	MWPA personnel who are responsible to conduct health and safety inspection and audit services of work at height activities.
Workers	Personnel who work at height shall ensure they are suitably trained and competent for the activities undertaken, complete inspections of equipment prior to every use and comply with the mandatory documented requirements.

4 Definitions

JSEA	Job Safety and Environmental Analysis
Construction Work	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.
High Risk Construction Work	*WHS General Regulations 2022*, r.291 define High Risk Construction Work in relation to work at height as construction work that — (a) involves a risk of a person falling more than 2 metres.
PCBU	A person conducting a business or undertaking has a duty of care to ensure the health and safety of workers and others is maintained so far as is reasonably practicable, by eliminating risks to health and safety. If this is not reasonably practicable, risks must be minimised so far as is reasonably practicable.

5 General Requirements

5.1 WHAT IS WORK AT HEIGHT?

Work at Height is defined in the *Work Health and Safety (General) Regulations 2022* (WHS Regulations) and for the purposes of this Procedure work at height shall include the risk from falls and from dropped objects.

Work at Height (*WHS General Regulations 2022*, r.78) do not define a 'specific height' to classify general activities as work at height, however, it includes a fall from one level to another that is reasonably likely to cause injury to the person or any other person.

Note that construction work that involves a risk of a person falling more than 2 metres is defined as high risk construction work (*WHS General Regulations 2022*, r.291) – see Section 4.2 for documents used to manage work at height.

Typically work at height will include a potential for a person to fall:

- from an elevated workplace;
- through an opening;
- over an edge; or
- through a surface (for example, that may be brittle / fragile or unable to support the weight of the activity).

Where it is reasonably practicable to eliminate the work at height hazard it must be eliminated. The next most effective control(s) or combination of control measures must be used where the work at height hazard remains and may include:

- fall prevention device (for example, fence, edge protection, working platforms or hole covers);
- work positioning system (for example, fall restraint, horizontal anchor line, confined space haul system); or
- fall arrest system (for example, industrial safety net, a catch platform, a safety harness).

Note: *WHS General Regulations 2022*, (r.80) identify where a fall arrest system is in use an emergency and rescue procedure will be in place and tested for its effectiveness, while (r.54) identify a potential dropped object as any object falling on a person if the falling object is reasonably likely to injure the person. Where this potential occurs, where practicable, objects must:

- be prevented from falling freely (for example, use of lanyards, barriers); and
- have in place a system to arrest the fall of a falling object (for example, netting, exclusion zones).

5.2 DOCUMENTS USED TO MANAGE WORK AT HEIGHT

Mandatory and optional documents that are required to manage the work at height process include the following.

Requirement	Document
Mandatory Documents	The mandatory documents used to manage Work at Height activities include: • Job Safety and Environmental Analysis (JSEA) • Safe Work Method Statement (SWMS) – where the work is defined as High-Risk Construction Work and involves a risk of a person falling more than 2 metres then a SWMS is needed instead of a JSEA. • Working at Heights Procedure • Authority to Work Permit • Application for Working at Height Permit
Optional Documents	Optional documents include: • Work Health and Safety Plan (in most circumstances work at height will be associated with 'construction activities'. If more than five personnel are conducting the work / onsite then a WHS is required. • Task specific risk assessment. • Safe Work Procedure(s). • Prestart checklists / meetings (equipment and personnel). • Traffic Management Permit – Work at Height activities may require traffic management, refer to Traffic Management Procedure.

5.3 PERMIT TO WORK REQUIREMENTS

All work at height activities shall be managed by an Application for Working at Heights Permit.

Refer to the Permit to Work Procedure for detailed information regarding work at height activities including the following.

- Elevated Work Platforms (EWP).
- Use of fall prevention (for example, hard barriers), work positioning (for example, fall restraint) and fall arrest controls.
- Creating holes / removing flooring or handrails.
- Working on a roof / fragile surface.

- Use of platform ladders / ladders.
- Work suspended over water.
- Use of scaffolding.

5.4 JOB SAFETY AND ENVIRONMENTAL ANALYSIS (JSEA)

A JSEA must be completed prior to working at heights and shall be reviewed and approved on site prior to use.

Requirement	Topic

Minimum Written Requirements	The minimum written requirements recorded must include the following.
	• **High Level Controls**: The work at height cannot be eliminated, therefore what the next most effective control(s) available to implement, must be recorded in the JSEA.
	• **Height of Potential Fall**: If a fall may occur from one level to another and it is reasonably likely to result in injury regardless of the height, it must be managed.
	• **Dropped Objects**: The risk of dropped objects and the method(s) to prevent dropped object occurring must be listed.
	• **Access**: The barricading / exclusion / sentry requirements / signage is required to inform and restrict access to the hazardous area surrounding the work must be identified. If it is possible for objects or people to pendulum / ricochet off structures in the area, what effect will that have on the preceding requirements?
	• **Environmental**: Environmental conditions such as wind and rain must be accounted for.
	• **Proximity**:The proximity of hazards such as nearby structures and electrical systems and parts on the activities being undertaken must be listed.
	• **Other Work**: If other work is being undertaken in the area (for example, nearby / above / below), which could impact on the operation they must be noted.
	• **Equipment**: What specific equipment is required for the task? As a minimum all full body harnesses must have a suspension trauma strap fitted.
	• **Rescue Plan and Drill**: An emergency rescue plan (consider the risk of suspension trauma) must be included or attached as a separate document and a drill conducted to determine the effectiveness of the plan.
	• **Personnel and Training**: The minimum number of personnel required to safely complete the task and the height safety training (including rescue) requirements of all personnel involved.
	• **Other**: See specific additional requirements for the use of:
	  • Elevated Work Platforms (EWP)s;
	  • working over water; and
	  • use of ladders.

Requirement	Topic
General Considerations	Other general considerations include: • If holes / edges or openings are present, how will they be managed to prevent personnel falling / dropped objects occurring? What barriers such as structural mesh / ply / drop matting / tool and equipment lanyards are required.
	• Can nearby works be scheduled so that tasks creating an overhead work situation do not occur at the same time as work nearby / above / below? • If specific PPE is to be worn such as helmet chin straps / enclosed type helmets they are to be specified. • Can personnel safely approach, connect and disconnect from any restraint / arrest connection point without being exposed to a fall / work object situation? • Is traffic management required to safely complete the task? If so, refer to Traffic Management Procedure for more information.

6 Mobile Elevated Work Platforms (MEWP)

Mobile Elevated Work Platforms (**MEWP**) include any type of platform, including boom, telescopic and scissor type platforms. Minimum requirements for the JSEA are specified in Section 5.3, additional requirements to manage MEWP specific hazards are listed below.

Requirement	Topic
MEWP Specific Requirements	In addition to the general JSEA requirements – EWP specific requirements must include the following. • **Full Body Harness**: All personnel who operate any type of MEWP that are used within MWPA controlled land must wear a full body harness and be tethered to the MEWP. (Note that some exemptions may apply when working over water – see Section 7.) • **Ground Conditions and Stability of MEWP**: Consider the presence of underground services and include in the JSEA. If surfaces are soft, consider the use of mats / steel plates / timber sleepers to distribute the operational load. If unsure, ground compaction values must be identified; consult with specialist personnel from the MWPA engineering department. Ground conditions must be assessed for each area accessed by the MEWP. Special conditions may apply around areas of previous subsidence such as around the Berth 5 amenities area. Consult with the MWPA engineering department. • **Crush Zones**: The proximity of hazards such as nearby structures including the risk of being crushed between the MEWP and the structure(s).

Requirement	Topic
	• **Inspections**: Mandatory pre-use inspections must be completed, and records retained. MEWPs must be maintained, inspected and operated in accordance with the manufacturer's written instructions. A pre-start check is to be made and a logbook must be maintained on each EWP. The operator must check the currency of the EWP Certification before use. A copy of the current certification must be held in the EWP at all times. • **Personnel and Training**: High Risk Work Licence for all personnel (minimum two personnel, including the spotter on ground) involved in MEWP activities.

MEWP Special Considerations	• **Special Considerations Near Rock Walls and Embankments**: Within the MWPA rock walls and embankments can be prone to undermining from sea-state, tidal movements and damage from stormwater runoff. A minimum **3 METRES** must be maintained from the edge. If, for practical reasons, this cannot be achieved, approval from MWPA Manager Projects and Technical Services must be obtained and additional control measures may be imposed. Documented justification and additional technical data may need to be supplied.
	• **Special Considerations Near Overhead Power Supply**: Where a MEWP is being operated near power lines, exclusion zone distances must be maintained and a spotter assigned. Additional controls such as isolation and use of protection such as insulators must be put in place. 'Tiger tails' (powerline indicators) must be considered as a minimum.
	• **Exiting the MEWP**: Where the MEWP's platform is next to the work area landing and the EWP is used to access the work area, the activity must be clearly identified in a risk assessment. As a minimum the work landing area and the MEWP platform must be:
	  • the safest method of access;
	  • structurally adequate; and
	  • no more than 100mm apart.
	  • The floor is capable of being positioned within 300mm vertically of the landing.
	  • If work needs to be done with the guardrails removed, a double lanyard system, fixed to a certified anchor point at all times should be used by workers.
	• **Traffic Management**: A traffic management plan may be required where MEWPs are used on a roadway / road shoulder where interaction with traffic is likely. If an EWP encroaches onto a laneway, the lane must be diverted around the EWP, if sufficient room. If the laneway must be closed down to one lane, traffic management will be required. Refer to Traffic Management Procedure – Geraldton Port and Traffic Management – Gillam Road Guideline for more information.

7 Working Suspended Over Water

Note: These requirements only apply to work while suspended over water.

An exemption from wearing a harness when working over water in a MEWP (Exemption No. 11/2012, dated 26 June 2012) and Workbox (Synergy Record No. 1011776 dated 8 March 2010) has been issued to the MWPA by WorkSafe for maintenance of wharves, wharf faces and on berth fenders. Requirements documented in the JSEA include the following.

Requirement	Topic

Working over Water MEWP Specific Requirements	In addition to the general JSEA requirements and MEWP specific requirements, the following items must be included in the JSEA when working suspended over water.
	• **Harnesses** used for working over water shall:
	  • have a built-in auto-inflating personal flotation device (PFD); or
	  • the alternative is to wear a separate harness and auto-inflating PFD.; and
	  • be attached until over water at which time it can be unclipped. The harness must be reattached before moving over land or any hard surface.
	• **Helmets**: Used for working over water:
	  • shall include a chin strap to secure the helmet; or
	  • be of a fully enclosed type used for work at height activity.
	• **Spotter**: When working in a MEWP or work box over water, a spotter must be present at all times to guide the operator, monitor work and use the life ring for rescue if required.
	• **Rescue Devices**: Shall include the following.
	  • A rescue flotation device (life ring and retrieval rope) must be readily available when working over water.
	  • Workers must have identified where rescue ladders and life rings are located on the wharf edge.
	  • A review of Wharfside Man Overboard Procedure to understand the rescue from water process.

Requirement	Topic

Working over Water Work Box Mandatory Requirements	In addition to the general JSEA requirements, the following items must be included in the JSEA when working suspended over water in a Work Box.
	• **Rigger**: Must be present at all times in the work box to guide the crane operator.
	• **Spotter**: Must be available to monitor the work box and persons working over water. This spotter must be positioned on the berth and ensure they have an all-round view of the worksite, including the space above and around the crane boom.
	• **Rescue Devices**: shall include the following.
	  • A rescue flotation device (life ring and retrieval rope) must be readily available when working over water.
	  • Workers must have identified where rescue ladders and life rings are located on the wharf edge.
	  • A review of Wharfside Man Overboard Procedure to understand the rescue from water process.

8 Scaffolding

The erection and dismantling of all scaffolding is to be undertaken in accordance with the requirement of AS/NZS 1576 Parts 1-6 as a minimum requirement. Requirements documented in the JSEA include the following.

Requirement	Topic
Scaffolding Specific Requirements	In addition to the general JSEA requirements and compliance with the listed Standard, the following items must be included in the JSEA when conducting scaffolding activities. • **Qualifications**: Personnel shall hold the appropriate high risk work licence for the type of scaffold being erected or dismantled. • **Written Confirmation**: Scaffolds shall not be used unless written confirmation from a competent person is attached ('Scafftag' or similar written confirmation) stating that construction of the scaffold has been completed and it is safe to use. • **Inspection**: Scaffolds must be inspected at least every 30 days by a competent person.

To ensure a person can be rescued quickly, an emergency rescue plan must be documented prior to the work commencing and must consider the risk of suspension trauma.

9 Maintenance and Inspection of Equipment

The relevant Supervisor or PCBU shall ensure the following.

- A competent person inspects fall protection equipment at least six monthly and certifies that is in good, correct, and safe condition.
- A register of all personal fall protection equipment must be kept as per AS/NZS 1891.4 Industrial fall-arrest systems and devices – Part 4: Selection, use and maintenance.
- Equipment must be visually inspected prior to, and after, every use to ensure integrity.

- Permanently fixed anchorages must be inspected by a competent person at not more than six month intervals. They must also be inspected by an authorised competent person every 12 months and a certificate issued to indicate that the equipment is safe to use.
- Equipment must be stored in an appropriate, designated storage area containing instructions on care, fitting and maintenance of equipment.
- If equipment or anchorages require maintenance or are unserviceable, they must be appropriately tagged and removed from use.

10 Signage of Fixed Anchorage Points

Permanent or long-term fixed anchorage points must be signed with the following information as required by AS/NZS 1891.4.

- Name of installer and installation date, or if an existing structure has been certified, the name of the certifier and the certification date.
- The highest purpose category for which the anchorage is suitable (see AS/NZS 1891.4 Table 3.1).
- The ultimate strength rating, if less than 15 kN. In this case, words must be added to the sign to the effect that the anchorage is to be used only for fall restraint scenario and not to be used for fall-arrest.
- The maximum number of people (never to exceed two) who are permitted to be connected to the anchorage point at any one time.

11 Ladders

11.1 PORTABLE LADDERS

The following requirements apply to the selection and use of ladders.

Requirement	Topic
Portable Ladders	• The type of ladder shall be selected based on the task involved, for example, ladders for electrical use must be non-conductive. • They are intended for temporary use only. • They should be inspected prior to use. If damaged, tag out as unserviceable and either repair or destroy. Store ladders to avoid damage and deterioration. • Where possible, platform type ladders that have a working platform should be used in preference for non-platform types. • Straight ladders should be tied off where possible to prevent movement during use. If necessary, have a second person 'foot' the base of the ladder until it is tied or fixed in place. • As a general rule, the distance between the ladder base and the supporting structure (wall) should be approximately 1 metre away for every 4 metres of working ladder height (1 out, 4 up).

Requirement	Topic
	• When used for access or egress to a roof, platform, or similar, the ladder should extend at least 900mm above the stepping off point. Extension or single ladders are a means of access to or egress from a work area. They are not to be used as a work platform.

Fixed Ladders	• In areas where fixed ladders are installed, they should be:
	  • constructed and installed in accordance with AS1657 Fixed Platforms, Walkways, Stairways and Ladders – Design, Construction and Installation; and
	  • visibly checked prior to use.

12 Emergency Rescue

12.1 SUSPENSION TRAUMA

Suspension trauma is caused by the blood pooling in the limbs of a person suspended relatively motionless in an upright position and within the occupational environment is normally associated with the use of a harness. If a person is unconscious and therefore not moving, their condition can deteriorate very quickly and potentially lead to death. Consideration of suspension trauma is part of emergency planning.

12.2 RESCUE PLAN

A work at height rescue plan must be documented in or attached to the JSEA whenever fall arrest systems are in use. Consider the following.

Requirement	Topic
Emergency Rescue Plan – Mandatory Requirements	• All harnesses must have a suspension trauma strap so personnel, if conscious, can place themselves in a horizontal position. • Emergency contact information must be available. • The emergency procedures must be tested to determine their effectiveness.
Emergency Rescue Plan – Considerations	• The type of body-holding device in use. • The communication methods available. • The requirement to shut down plant and equipment in the vicinity of the incident. • The person may be unconscious or injured and unable to assist in their own rescue. • The steps the rescue team will take to ensure their own safety. • Whether the injured person can be raised or lowered. • The rescue equipment at the site and the personnel who are familiar with its safe use. • Then possible effects of suspension trauma if rescue is delayed. • If work is undertaken when suspended over water, and a person falls into the water, the Wharfside Man Overboard Procedure process should be followed.

13 Training Requirements

All personnel involved in work at height activities including standby and rescue personnel must be suitably trained and competent in line with the following requirements.

Requirement	Topic

Training – Mandatory Requirements	• Personnel must have completed approved training including but not limited to:
	  • Height Safety Training;
	  • High Risk Work Licences (for example, activities involving high risk work such as scaffolding, rigging and operating MEWPs); and
	  • Personnel must have copies of their licences / training qualifications available for inspection at the worksite.

Training – General Considerations	• Personnel involved with work at height rescue requirements should have completed approved Working at Height Rescue training.

14 Associated Documents

Document Title
Application for Working at Heights Permit
Permit to Work Procedure
Traffic Management Procedure
Wharfside Man Overboard Procedure
Working On, Over or Near Water Procedure

Location – Mid West Ports Intranet – Document Centre

15 References

Standard	Title
Australian Standard	1657 Fixed platforms, walkways, stairways and ladders – Design, construction and installation
	1891 Industrial fall-arrest systems and devices
	1892 Portable ladders
	2550.10 Cranes, hoists and winches – Safe use – Part 10: mobile elevating work platforms

Location – SAI Global – https://www.saiglobal.com/online/

Act or Regulation
Work Health and Safety Act 2020
Work Health and Safety (General) Regulations 2022
Part 3.1 - Managing Risk to Health and Safety
Part 4.4 – Falls (r.78 and r.79)

Location - Western Australian - https://www.legislation.wa.gov.au | Australian - https://www.legislation.gov.au

Authority	Resource
WorkSafe WA	Code of Practice – Prevention of Falls in the Workplace

16 Monitoring, Evaluation and Review

This document is required to be reviewed every two years from the last scheduled review date.

Minor updates made within this two year period, will not be taken as a *full review*.

The Document Custodian is responsible for conducting the review in accordance with **Controlled Documents Review and Approval Process Work Instruction**.

17 Administration

Document Custodian:	Maintenance Services Manager
Document Approver:	Chief Operating Officer
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