

# Guide to managing the risks of elevating work platforms

Guidance material

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SEPTEMBER 2021

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# 1. Introduction

Elevating work platforms (EWPs) can pose a number of work health and safety (WHS) risks. This guide provides information to a person conducting a business or undertaking (PCBU) on:

- identifying and assessing the risks of EWPs
- control measures for managing the risks of EWPs, and
- safe planning and use of EWPs.

## 1.1. What is an elevating work platform?

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 can move over a supporting surface without the need for fixed runways.

There are various types of EWPs, including but not limited to:

### **Scissor lift**

Scissor lifts are self-propelled and only able to lift the work platform in an up and down motion. The lift mechanism is designed with a criss-cross section to allow for the folding and extending movement.

### **Self-propelled boom lift**

A self-propelled boom lift EWP can be used on flat surfaces or unsealed, firm ground. The boom can either be straight or articulating. It can have a telescopic section and may also have a smaller jib boom. The boom allows the work platform to reach up and over objects and is also able to slew.

### **Trailer lift**

A trailer mounted EWP can be towed by most vehicles, and its stabilisers are mainly adjustable.

### **Truck or vehicle mounted lift**

A vehicle mounted EWP can be road-registered with a boom mounted on the vehicle's chassis.

### **Telehandler**

A telehandler is a versatile piece of equipment that has attachments allowing it to be used for different purposes. While they are most commonly used with the forklift attachment, they can be also used as an EWP when a suitably designed work platform is attached.

### **Vertical mast lift**

Vertical masts are self-propelled with a telescoping mast to lift the work platform. Some can slew and have an additional tool tray for stock picking applications. They are typically used on flat, sealed surfaces such as warehouses.

Other plant with lifting mechanisms such as Integrated Tool Carriers (ITC), are considered EWPs when the work platform is attached.

## 1.2. Who should use this guide?

This guide provides practical guidance to assist duty holders, primarily PCBUs, to manage risks to health and safety associated with the use of EWPs. You should use this guide if you own, hire, lease, handle, store, transport, maintain or use an EWP in the workplace.

## 1.3. How to use this guide

This Guide is intended to supplement other information available from Safe Work Australia to assist you to meet your duties and obligations under WHS laws. It should be read in conjunction with the following:

- [Model Code of Practice: \*How to manage work health and safety risks\*](#)
- [Model Code of Practice: \*Managing the risks of plant in the workplace\*](#)
- [Model Code of Practice: \*Construction work\*](#)
- [Model Code of Practice: \*Managing the risks of falls at workplaces, and\*](#)
- [Guidance material: \*Inspecting and maintaining elevating work platforms.\*](#)

This Guide includes references to the legal requirements under the WHS Act and WHS Regulations. These are included for convenience only and should not be relied on in place of the full text of the WHS Act or WHS Regulations.

In this Guide, the word 'must' indicates a legal requirement that must be complied with. The word 'should' indicates a recommended course of action.

## 2. Who has health and safety duties?

PCBUs, officers, workers and other persons at the workplace have duties under WHS laws, including the duty to take reasonable care for their own health and safety at the workplace. A person can have more than one duty and more than one person can have the same duty at the same time.

Under WHS laws, various persons have duties to control the risks of working with EWPs, including the:

- EWP designer, manufacturer, importer and/or supplier
- EWP owner and other people with management or control of the EWP or the workplace where an EWP will operate
- competent person who inspects the EWP, and
- EWP operator.

### Persons conducting a business or undertaking

#### WHS Act section 19

Primary duty of care

#### WHS Act section 21

Duty of persons conducting businesses or undertakings involving management or control of fixtures, fittings or plant at workplaces

PCBUs have the primary duty of care for the health and safety of their workers and others at the workplace.

A PCBU can be a:

- company
- unincorporated body or association
- sole trader, or
- self-employed person.

Individuals who are in a partnership that is conducting a business or undertaking will individually and collectively be a PCBU.

A PCBU must ensure, so far as is reasonably practicable, that workers and other people are not exposed to health and safety risks arising from the business or undertaking, including risks from EWPs. This duty requires the person to eliminate risks to health and safety, so far as is reasonably practicable, and if it is not reasonably practicable to eliminate the risks, to minimise those risks so far as is reasonably practicable. A PCBU also has a number of more specific obligations, which are set out in the WHS Regulations, including requirements to:

- manage the health and safety risks associated with plant
- prevent unauthorised alterations to or interference with plant so far as is reasonably practicable, and
- use plant only for the purpose for which it was designed unless the proposed use does not increase the risk to health or safety. The WHS Regulations include specific duties for PCBUs with management or control of plant, powered mobile plant and plant that lifts or suspends loads.

If you hire or lease an EWP, you have management or control of that EWP for the period you have hired it. Both you and the person you have hired or leased it from will have duties to eliminate or minimise the risks associated with the EWP, so far as is reasonably practicable.

## Officers

### **WHS Act section 27**

Duties of officers

Officers of a PCBU, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise the risks of working with EWPs.

## Designers, manufacturers, suppliers and importers

### **WHS Act section 22**

Duties of persons conducting businesses or undertakings that design plant, substances or structures

### **WHS Act section 23**

Duties of persons conducting business or undertakings that manufacture plant, substances or structures

### **WHS Act section 24**

Duties of persons conducting businesses or undertakings that import plant, substances or structures

### **WHS Act section 25**

Duties of persons conducting businesses or undertakings that supply plant, substances or structures

### **WHS Act section 26**

Duties of persons conducting businesses or undertakings that install, construct or commission plant or structures

### **WHS Regulation 295**

Designers must give safety report to person who commissions design

Designers, manufacturers, suppliers and importers of EWPs must ensure, so far as is reasonably practicable, the plant they design, manufacture, import or supply is without risks to health and safety. This duty includes carrying out analysis, testing or an examination and providing specific information about the plant. Information must, so far as is reasonably practicable, be passed on from the designer through to the manufacturer and supplier to the end user.

Suppliers must provide a purchaser of any EWP that requires plant design registration with the design registration number.

When hiring or leasing an EWP, the person who owns the EWP must be consulted about potential hazards, as there is a shared responsibility for ensuring, so far as is reasonably practicable, that the EWP is safe to use and without risk to health and safety.

Anyone hiring or leasing an EWP to others has duties as both a supplier of the EWP and as a person with management or control of the EWP at the workplace. They must check the EWP is safe to use and properly maintained and provide specific information including safe operation instructions.

## Workers

### WHS Act section 28

#### Duties of workers

Workers have a duty to take reasonable care for their own health and safety, co-operate with reasonable policies, procedures and instructions and take reasonable care to not adversely affect the health and safety of other persons.

Workers must:

- comply as far as they are reasonably able with any reasonable WHS instructions from you as the PCBU, and
- co-operate with any reasonable policy or procedure relating to WHS at the workplace that you as the PCBU put in place, if they have been told about it beforehand.

Workers must comply with all reasonable instructions to operate EWPs safely, including wearing relevant personal protective equipment (PPE) and following safe operating procedures, so far as is reasonably practicable. The PCBU must make workers aware of the hazards associated with the use of the EWP, including the process for reporting safety incidents.

## Other persons at the workplace

### WHS Act section 29

#### Duties of other persons at the workplace

Other persons at the workplace, like visitors, must take reasonable care for their own health and safety and must take reasonable care not to adversely affect other people's health and safety. They must comply, so far as they are reasonably able, with reasonable instructions given by the PCBU to allow that person to comply with the WHS Act.

## 2.1. WHS laws in your state or territory

The Commonwealth, state and territory WHS regulators are responsible for enforcing WHS laws. They make decisions about whether you comply with the requirements.

WHS laws are not the same across Australia. If you need help understanding your WHS requirements, please contact your [WHS regulator](#).

## 3. Managing health and safety risks

As a PCBU, you must manage the health and safety risks associated with EWPs in the workplace. You must ensure that the EWP is used as intended by the manufacturer.

Use the following steps to ensure, so far as is reasonably practicable, workers and other people are not exposed to health and safety risks associated with the use of EWPs.

Further information on the risk management process is in the [Code of Practice: How to manage work health and safety risks](#).

### 3.1. Consultation

You must consult, so far as is reasonably practicable, with your workers and their elected health and safety representatives (if any) about health and safety at your workplace.

Workers must be consulted on health and safety matters, including (but not limited to):

- identifying hazards and risks associated with the use of EWPs
- making changes to processes or procedures that use EWPs
- improving controls put in place to protect workers from the risks associated with EWPs
- procedures for resolving health and safety issues
- procedures for monitoring the conditions at the workplace, and
- procedures for providing information and training for workers.

Participation of your workers in discussions about health and safety is important, as they are most likely to know about the risks of their work. Joint involvement in identifying hazards and assessing and controlling workplace risks will help build a mutual commitment to this process and any changes that may result.

To gain knowledge or expertise about EWP specifications, limitations and operational requirements, engage with EWP suppliers and provide relevant information about the work, the workplace and the type of work to be completed so the supplier can provide a suitable EWP.

Further information on consultation requirements is in the [Code of Practice: Work health and safety consultation, co-operation and co-ordination](#).

### 3.2. The risk management process

Risk management requires you to think about what could go wrong at your workplace and what the consequences could be. Then you must do whatever is reasonably practicable to eliminate or minimise those risks.

Risk management involves four steps:

- **Identify hazards**—find out what could cause harm.
- **Assess risks, if necessary**—understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening. This step may not be necessary if you are dealing with a known risk with known control measures.

- **Control risks**—implement the most effective control measure that is reasonably practicable in the circumstances and ensure it remains effective over time.
- **Review hazards and control measures** to ensure they are working as planned.

Determining what control measures are reasonably practicable includes consideration of the availability and suitability of control measures. Cost may also be relevant, but you must only consider this after you have assessed the extent of the risk and the available ways to eliminate or minimise the risk.

### 3.2.1. Identify the hazards

Identifying hazards associated with EWPs involves anticipating things and situations that could potentially cause harm to people.

Due to the size and function of the machine, there are many hazards that can pose a risk to the health and safety of workers and the public.

Known hazards associated with using an EWP include:

- structural failure, overturning, or collapse
- contact or collision of the EWP with people or other plant, powerlines and structures causing injuries and entrapment
- inadequate ventilation in the area the EWP is used
- restricted working space
- outriggers
- having different machines with different controls
- falling objects, and
- working at heights.

Incidents involving EWPs have resulted in fatalities and serious injuries.

The following can help you identify hazards related to the use of EWPs:

- observe the workplace and consider where the EWP will operate and how it could interact with other plant, people and structures, including overhead electric lines. Think about the layout and placement of overhead structures in your workplace where the EWP may be used.
- review inspection, test and maintenance records, such as logbooks and incident and injury records, including near misses, and
- consult with the EWP operator, workers, spotters and others about problems they encounter or can reasonably foresee. This could include problems with operation, inspection, maintenance, repair, transport and storage of the EWP.

Hazards can also arise from the conditions of the workplace. For example, local weather conditions can introduce new hazards. High winds can be dangerous and cause uncontrolled movement or overturning of an EWP. Rainfall can affect visibility and ground conditions which may cause the machine to become unstable.

The terrain and operating surface of the EWP can pose serious risks of uncontrolled movement or overturn if it is sloped, uneven or unstable. Stability may also be affected by any underground services, including existing trenches and any trenches or holes that have been recently filled. Ensure the ground can bear the weight of the machine and any loads it is required to carry.

The proximity of other structures can pose a risk of being crushed or trapped against the structure. This can occur when moving the EWP or positioning the work platform. Tight spaces, protruding points and rough terrain are all factors that can cause the work platform to jolt, bounce or collide with objects or structures.

Hazards can arise with the reach and height required for the task. The risk may increase as the machine is required to reach further and higher. The type of work being carried out, and any equipment in the platform may also pose hazards. For example, if carrying out work involving sheet metal, wind may be more hazardous due to a 'sail' effect destabilising workers and the machine.

### 3.2.2. Assess the risks

In many cases the risks and related control measures will be well known. Otherwise, you should carry out a risk assessment. Risk assessments help determine how large the risk posed by the hazard is, what action is necessary to control the risk, how urgently the action needs to be taken and who is responsible for implementing the control measure.

You should identify the type and potential severity of the harm. The number of people potentially exposed to the hazard and other factors, such as the potential distance of a fall, may influence the severity.

The assessment must also work out the likelihood of harm occurring. Consider how frequently the task is done or how close people are to the hazard. For example, work being undertaken close to an overhead structure has a higher crush risk than work undertaken further away.

A risk assessment should be carried out if:

- there is uncertainty about how a hazard may result in an injury
- the work activity involves a number of different hazards, and
- there is any lack of understanding of how these hazards may interact with each other.

Risk assessments should consider the effectiveness of existing control measures and how work is actually undertaken in the workplace (compared to the written manuals and procedures and in infrequent or abnormal situations). In undertaking the risk assessment, also think about maintenance and cleaning, breakdown of equipment and failures of health and safety controls.

### 3.2.3. Take action to control the risks

WHS laws require you to do everything reasonably practicable to eliminate or minimise risks to health and safety in the workplace. It is most likely you will need to use a range of control measures to protect your workers from the risks associated with EWPs.

Controlling risks should involve discussing site-specific requirements, including the type, size and functions of the EWP to use, training and traffic management.

The ways of controlling risks are ranked from the highest to lowest level of protection and reliability, known as the hierarchy of risk controls. You must work through this hierarchy to manage risks.

You must always aim to eliminate a risk where reasonably practicable. Where a risk cannot be eliminated, it must be minimised, so far as is reasonably practicable, using one or more of

the following approaches:

- Substitution
- Isolation, and
- Engineering.

If risk still remains, administrative control measures should be implemented, so far as is reasonably practicable. Personal protective equipment (PPE) should be used to control any remaining risks. Cost may also be relevant, but you can only consider this after an effective review of all reasonably practicable control measures. A combination of control measures may be required where a single control is not sufficient to minimise the risks. Monitor and review all controls to ensure they remain effective.

## Elimination

The first thing you must consider is whether a risk can be completely removed from the workplace. For example, it may be possible to plan painting work so there is no need to use an EWP by painting beams on the ground prior to installation.

If it is not reasonably practicable to completely eliminate the risk, then risks must be minimised, so far as is reasonably practicable.

## Substitution controls

Substituting the hazard for something safer can be an effective control measure. Depending on work requirements, the EWP may be substituted for other types of plant or structures, such as fixed scaffolding.

## Isolation controls

Where possible, restrict site access to people who are directly involved with the work activities and minimise the movement of people and mobile plant in the EWP working area.

If the EWP is close to an open trench, ensure the plant is a safe distance from the edge of the trench. If the ground is soft or unstable, conduct a risk assessment to determine a safe distance from the trench. You may need to consult with a competent person to determine the safe distance. Use physical barriers, such as secure fencing to ensure the machine cannot access the edge of the trench or any surrounding unstable ground.

Exclusion zones should be used to separate the EWP from surrounding plant and structures. Ensure other plant or vehicles are not travelling near the EWP while operating.

## Engineering controls

An engineering control is a control measure that is physical in nature, including a mechanical device or process. These may include alarms and operator protection structures.

## Administrative controls

If after implementing the above control measures a risk still remains, administrative controls may be used to minimise the remaining risk, so far as is reasonably practicable. Some administrative measures will be necessary to ensure substitution, isolation and engineering control measures are implemented effectively, for example, following safe work procedures when using EWPs.

Administrative controls are less effective than other control measures because they do not control the hazard at the source and instead rely on human behaviour and supervision.

Administrative control measures include work methods or procedures that are designed to minimise exposure to a hazard, such as the use of spotters, communication devices, including two-way radios, as well as the information, training and instruction needed to ensure workers can work safely.

## Personal protective equipment

Any remaining risks should be minimised with suitable personal protective equipment (PPE). Suitable protective devices for operators must, so far as reasonably practicable, be provided for EWP.

PPE that may be used when working with an EWP includes:

- safety harnesses, including relevant lanyard and personal energy absorber
- a safety helmet/hard hat
- steel capped, rubber soled shoes
- a high visibility safety vest
- goggles
- sunscreen, and
- gloves.

### 3.2.4. Maintain and review the control measures

Control measures should be regularly reviewed to make sure they remain effective. This is particularly important if there have been changes to the nature or duration of work. Ensure that control measures are working as planned. Consulting with workers and their representatives, if any, can help determine if the control measures are effective. You should also consider:

- if the control measures introduce any new risks
- if the workers are actively involved in identifying hazards or controls
- if incidents are occurring more or less frequently, and
- if any new information or equipment has been developed that may be effective.

If issues with the risk management controls are found, the risk management process should be repeated to identify additional ways to effectively manage the risks.

## 3.3. Information, training, instruction and supervision

You must, so far as is reasonably practicable, provide any information, instruction, training or supervision necessary to protect people from health and safety risks that arise from the work carried out as part of the business or undertaking.

You must ensure that information, training or instruction provided to a worker is suitable and adequate for:

- the nature of the work carried out by the worker
- the nature of the risks associated with the work at the time of the information, training and instruction, and
- the control measures implemented.

You must also ensure, so far as is reasonably practicable, that the information, training and instruction are provided in a way that is readily understandable for the person to whom it is provided.

Information, training and instruction provided to workers should include:

- familiarisation with new or unfamiliar plant and work environments
- establishing communication procedures between the EWP operators, ground support workers, spotters, other machine or vehicle operators and any other relevant workers
- relevant information for operators, including how to operate the controls, use the machine safely, perform pre-start inspections and keep the log book up-to-date to ensure safe use of the machine
- the proper use, wearing, storage and maintenance of PPE
- the hazards and risks associated with the work performed
- how to follow the health and safety procedures associated with the work, including the contents of any safe work method statements (SWMS) for high risk construction work
- the reasons for any fall protection measures that have been put in place
- emergency and rescue procedures, including positioning the EWP to ensure access to the emergency controls is not obstructed
- procedures for reporting hazards and incidents
- how to assess the workplace conditions, such as slope and ground conditions
- the correct selection, fitting, use, care, inspection, maintenance and storage of fall arrest and restraint equipment, if this equipment is to be used, and
- control measures for other potential hazards, such as crush or electrical hazards.

Those supervising the work should also receive training. The amount and type of training required will depend on the nature of the work and the risks involved, in general they should understand the risks of using EWPs, capabilities and functionalities of the specific EWPs in use and any relevant rescue procedures.

You must not direct or allow a worker to carry out construction work unless the worker has successfully completed general construction induction training and has carried out construction work in the last two years, if the worker completed induction training more than two years previously. You must also ensure the worker holds a general construction induction training card or a general construction induction training certification issued within the preceding 60 days.

For further information on induction training, see the information sheet: [Workplace induction for construction workplaces](#).

## Operator training

It is important that workers are trained on operating the different types of machines that they will be using on site. If there are multiple types of EWPs on site, the workers should be trained for all the EWP types, or only be directed to use the type that they are trained for. The different types and brands can have significantly different controls. Incorrect use of the controls can lead to a serious incident and injury.

Workers, including spotters and ground workers involved with the EWP, should be aware of how to operate the emergency controls to ensure that they are able to lower the platform if needed.

## Safe general use

The PCBU must provide any necessary training or instruction so that the worker understands the hazards and risks associated with EWPs, including ensuring competency in the use of communication systems, setting up exclusion zones, and understanding any

SWMS and emergency procedures. An EWP operator can demonstrate they are adequately trained by:

- holding an industry recognised training card
- holding a statement of attainment or other nationally recognised qualification
- completing training at an industry training school, or
- completing on-the-job training under supervision of a person who is competent to train and assess an EWP operator.

## 3.4. Licensing requirements

For a boom-type EWP, where the boom length is 11 metres or more, the operator must hold the appropriate high risk work licence.

The boom length is the greater of:

- the vertical distance from the surface supporting the boom-type EWP to the floor of the platform, with the platform extended to its maximum height; or
- the horizontal distance from the centre point of the boom's rotation to the outer edge of the platform, with the platform extended to its maximum reach.

The boom length is to be taken from the original design. Post manufacture alterations to reduce the boom length do not nullify EWP licensing requirements.

A person who operates a boom-type EWP with a boom length of 11 metres or more is not required to be licensed if they are undertaking training to obtain their high risk work licence and supervised by a person holding the relevant licence. A licence is also not required if the work carried out is:

- solely for manufacturing, testing, trialling, installing, commissioning, maintaining, servicing, repairing, altering or disposing of the EWP
- solely for moving the EWP in the workplace where the EWP is operated or used without a load except when standard weights with predetermined fixing points are used for calibration and other testing
- limited to loading or unloading the EWP from a vehicle or equipment used to move the EWP.

For other types of EWPs, including a boom-type with a boom length of less than 11 metres, although a high risk work licence is not required, you still have a duty of care to ensure that the workers operating the EWPs are adequately trained to do so.

## 3.5. Inspections

Regular inspection, maintenance and repair are to be carried out in accordance with the manufacturer's instructions or those of a competent person. A preventative inspection, maintenance and testing program will help ensure the EWP is safe to use. The inspection records should be available in the EWP logbook.

For more information on tests and inspections, see the [Guide to inspecting and maintaining elevating work platforms.](#)

## 3.6. Emergency plans

An emergency plan must be prepared for each workplace where the EWP will operate. All operators and ground support workers must be trained and familiar with the relevant emergency and rescue procedures. The plan must be tested in the workplace and include emergency procedures like effective response, evacuation and notifying emergency services.

Workers should know how to contact emergency services with contact numbers easily accessible. Signs displaying evacuation locations should be placed where they can be easily seen.

Rescue equipment should be available and easily accessible. There should be processes in place so that injured workers, including the EWP operator, can be rescued, particularly if they are being suspended by their harness.

Generally, base controls should only be used during an emergency when people are on the platform, or for maintenance purposes. Emergency retrieval systems or equipment should be provided to enable the safe evacuation of people from the platform.

If an emergency occurs where the platform needs to be lowered down, follow the operating manual for the machine as the procedures can significantly vary between different brands and types of machines. Workers should be trained in the use of emergency controls on the base of the machine. All emergency lowering procedures should ensure that there is no risk of crush injuries and that the lowering pathway is clear of obstructions.

## 3.7. Safe work method statements

The WHS Regulations define certain types of construction work as 'high risk construction work'. Additional duties apply under the WHS Regulations for these activities. If the work is considered high risk, you must prepare a SWMS prior to work commencing. Some examples of high risk construction work that may involve EWPs include, but are not limited to:

- work involving a risk of a person falling more than 2 metres
- work carried out in an area where there is any movement of powered mobile plant
- work carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians, and
- work near energised electrical installations or services

A SWMS is a written document that must identify the high risk activities to be carried out at a workplace, any hazards arising from those activities and the measures to be implemented to control those hazards. A written SWMS should be based on a risk assessment and can be used for multiple high risk activities across a workplace.

The person who is responsible for carrying out the high risk work is the best person to prepare the SWMS, in consultation with the workers who will be undertaking the activities. The SWMS must be readily accessible and easily understandable for workers, including for those from culturally or linguistically diverse backgrounds. Using pictures and diagrams can be an effective method of communication.

You must put in place arrangements to ensure the SWMS is being complied with, such as workplace visits and providing resources like PPE. The SWMS should clearly document control measures for any hazard that may arise from the use of an EWP, such as crush, overturning and collision risks. The SWMS should document other safety measures, including that workers are to only stand on the floor of the EWP, not the handrails or items like ladders, scaffolding or boxes either placed on the platform floor or on the handrail.

For further information on SWMS see the [Code of Practice: Construction work](#) and the Information sheet: [Safe work method statement for high risk construction work](#).

## 3.8. Record keeping

Detailed records of inspection, testing and maintenance must be kept for the period that the EWP is used or until you relinquish control of the EWP. Records should:

- demonstrate the PCBU has complied with their duties, particularly if the EWP was involved in an incident
- determine the trends and causes of premature or unusual failures
- determine the integrity of previous inspections, and, if necessary,
- schedule repairs and future inspections.

EWP records should include:

- design or item registration information, if applicable
- final design drawings and calculations, where available
- methods, data and results obtained from tests carried out on the EWP and safety devices
- compliance statements
- manufacturer's specifications, including recommendations for inspections and maintenance
- information on maintenance, repairs and any modifications carried out
- information regarding the assessment by a competent person including results of risk assessments if the machine is to be used in a way that deviates from the manufacturers recommendations
- documented information, instruction and training provided to workers, including operator competencies
- logbooks
- any adjustments, repairs, inspections and any irregularities or damage, and
- details that an inspection has been undertaken by a competent person and has determined it is in a safe and satisfactory condition to use.

Records for registered boom type EWPs' tests, inspections, maintenance, commissioning, decommissioning, dismantling, and alterations must be kept and be available for examination as required.

For more information on record keeping, see the [Guide to inspecting and maintaining elevating work platforms](#).

# 4. Planning and preparation

## 4.1. Selecting the right EWP

Some risks can be mitigated by ensuring the correct equipment is chosen for the type of work. Before choosing an EWP, workplace requirements should be discussed with suppliers to identify the most suitable type for the task at hand. Where relevant, the complete lifecycle of the EWP, how often it is likely to be used, the conditions in which it will be used and the maximum load it is likely to lift should be considered.

When selecting an EWP, you should identify the operational requirements of the work, including where the EWP will be required to go, the size of the work space, the ground bearing capacity, any potential clearance requirements, visibility or other concerns that may require the use of spotters, the number and weight of people and equipment to be carried in the work platform and the height and reach required.

The machine that you choose should have a suitable rated capacity as well as suitable slope and wind limits. That slope and wind limits are sufficient for the work environment. You should also consider the terrain that the machine will be working on and ensure it is suitable for the type of ground conditions, slope, underground services and any travelling, moving and storage requirements. You can find this and other relevant information on the EWP's specification plate and in the EWPs manual.

You should also consider the needs of the workers. Where possible, select machines that have the same controls. Ensure they are trained or appropriately licensed where required for the EWP they are using. This is particularly important in workplaces where multiple EWPs are used as there may be differences in the controls on the EWPs. If working indoors, an electric EWP should be considered as emissions from non-electric EWPs can be hazardous.

If you use, hire or buy an EWP that is second hand, you must ensure that it is safe to use. A second-hand EWP may have out-dated or missing safety features. Suppliers of second-hand EWPs must do what is reasonably practicable to supply equipment that is safe to use and where practicable, fit or update safety features, such as secondary guarding devices.

When hiring or leasing an EWP, the person who owns the EWP must be consulted about potential hazards, as there is a shared responsibility for ensuring that the EWP is safe and without risk to health and safety.

Anyone hiring or leasing an EWP to others has duties as both a supplier of the EWP and as a person with management or control of the EWP at the workplace. They must check the EWP is safe to use and properly maintained and provide specific information including safe operation instructions.

### Secondary guarding devices

When selecting an EWP, you should consider if the machine has any secondary guarding devices. Secondary guarding devices can be used to minimise the risk of the work platform colliding with another object or structure, leading to crush injuries. The device may be included when the machine is being manufactured, or as a separate addition. A secondary guarding device may include a physical barrier above the work platform, a triggering device or sensors around the work platform or the control box and proximity switches.

Different secondary guarding systems have different triggering mechanisms. For example, it may activate if the EWP operator is pushed onto the device, or when it senses proximity of the work platform to a structure. Once activated the secondary system may give an alarm,

slow, stop or alter movements. The operator and other workers involved should understand how the system works and how it may alter the functions of the machine and what to do if it activates.

If the work being planned is to be undertaken in or through an enclosed space, near overhead structures or anywhere where a crush risk has been identified then an EWP with a secondary guarding devices should be considered in addition to other control measures.

If you plan to install a secondary guarding device to an existing EWP, an engineering risk assessment should be undertaken. The risk assessment should include consultation with the designer, manufacturer and supplier to identify if there are any impacts on design registration, any new safety hazards or any impact to the operation of the EWP.

Secondary guarding devices may not be available for all EWP types. Typically, these are available for boom-lifts and scissor lifts. You should contact your equipment provider for information on the availability of relevant secondary guarding devices.

## 4.2. Registering an EWP

Boom-type EWPs must be registered before they can be used in the workplace. Registrable EWP designs must be design registered before being supplied and before being commissioned for use. The EWP manufacturer or supplier must provide the design registration number with the EWP.

The EWP design registration certificate number must be readily accessible in the vicinity of the EWP at all times. If a person modifies an EWP, they then have the responsibilities of a manufacturer and are to ensure the modified EWP is safe and the new design is design registered.

## 4.3. Preventing collisions

When planning work involving EWPs, you should consider how and where the EWP will need to be moved throughout the workplace. You must eliminate or minimise the risk of an EWP colliding with any person, plant or structure. Consider where the EWP will need to operate, including any potential work that will be undertaken below or near overhead structures.

Controls to reduce the risk of collisions include:

- physical barriers, such as a protective barrier that is attached to the guardrail and provides overhead protection of the operator and minimises the risk of crush injuries
- presence sensing devices that stops the movement of the EWP if it detects the platform is or is about to collide with something, and
- the use of a spotter.

Inadvertent activation of the machine can occur when people or objects accidentally collide with the controls, leading to a crush injury. The risk of inadvertent operation of the controls can be minimised with the use of mechanical guards to protect the joystick from being pushed or pulled or the use of 'deadman' switches. Additionally, some EWPs can be fitted with joysticks that require centralisation, or a trigger or foot pedal to be pressed before it will allow movement. Some machines also have a timeout process, where operation of the machine times out after activating the trigger for a pre-set amount of time.

## 4.4. Pre-use safety checks

The person with management or control of the EWP in the workplace must ensure, so far as is reasonably practicable, that the EWP is specifically designed for the purpose for which it is being used.

The work being undertaken, who will be involved and the conditions of the site should be planned and discussed prior to deciding what type of EWP will be used. The discussions should include EWP operators and, where relevant, suppliers, designers, local councils or government authorities, and other trades and site managers.

Other factors to consider include:

- the condition of the EWP, for example, its age and maintenance history
- the location of the EWP, for example any impact on the design and layout of the workplace and the workers' ability to access the EWP without risk of slips, trips or falls,
- any abnormal situations, for example misuse or variation in operating conditions you can foresee, and
- the position of an EWP, particularly where there are overhead power lines or when outriggers are used.

Considerations for the stability of an EWP include surface slopes, ground cavities and the condition of the ground. The ground (including concrete, roadway, paving, earth or rubble) needs to have sufficient capacity for the weight of the EWP. The positioning should ensure that access to the emergency controls is maintained. Deciding where to site an EWP should occur during the planning phase after considering relevant factors, such as:

- the risk of the EWP overturning or collapsing due to the foundations or supporting structure giving way, overloading the machine, heavy winds and uneven ground
- the risk of the EWP colliding with or being struck by other plant, structures or objects at the workplace, and
- the paths of the EWP when travelling, including the ground the machine will be travelling over and
- the lift path of the work platform.

If there are any issues with the machine, do not use it. Tag the equipment to ensure it is not used by others. For further information, see Appendix A: Pre-operational Checklist.

# 5. Safe operation of an EWP

## 5.1. EWP controls

There must be systems in place to ensure safe operation of the EWP controls. The operator controls can vary for each type and brand of machine so careful consideration should be taken to ensure the operator training and procedures are relevant to the specific type of EWP and controls being used. Controls must be identified on the EWP with their nature, function and direction of operation.

Incorrect use of the controls can occur when there is inadvertent activation of the controls, or operator error. If workers are unfamiliar with the controls, not adequately trained or there is incorrect orientation of the control box, it is more likely that mistakes will be made.

Take particular care if there are multiple types of EWPs with different controls in use across a workplace. Where possible, put control measures in place to prevent workers switching between machines with different controls. If this is not possible, ensure workers understand any differences prior to use. The manufacturer's instructions must be accessible to operators to facilitate correct use of the EWP.

Portable controls are often used in EWPs to allow operators additional flexibility to move around the work platform. There may be a higher risk of incorrect use with portable or remote controls, often due to mis-orientation of the controls with the movement of the EWP. There should be processes in place that specify the orientation of the control box, which is particularly relevant for the use of remote controls. It is recommended that the controls are placed on the front of the machine. The remote controls and the machine should have clear visual prompts that identify the orientation of the controls so it is easy to identify which way the machine will move when using the controls.

You must train operators and ensure they are familiar with operating the controls. Ensure the instructions for lowering the platform in an emergency are clear. When positioning the EWP, ensure the emergency controls remain accessible from the ground.

## 5.2. Spotters

Lack of reliable communication between the people at a work site and the EWP operator may lead to unsafe EWP operations, such as collision with other plant and structures which can lead to injuries or fatalities.

A spotter is a person who communicates directly with the EWP operator from the ground. A spotter can minimise crush and collision risks by alerting the EWP operator of any surrounding hazards or obstacles. Spotters can also assist and raise an alarm in the case of an emergency.

Spotters should be used where an EWP operator is unable to judge distances, see the pathway of the EWP or there are structures or plant in the vicinity of the work being carried out, such as power lines and overhead structures. A spotter should be adequately trained in the use of the ground controls, emergency procedures and potential hazards related to the EWP.

The spotter should understand the task to be completed, the hazards involved and any other planned activity on the worksite including the movement of other machinery. They should be aware of the functionality and limitations of the EWP and be capable of

retrieving the work platform in an emergency and be familiar with the controls and emergency systems of the EWP being used.

You should undertake a risk assessment before deciding to use spotters. You should consider any additional risks introduced by this control measure. For instance, the spotter may be at risk of being struck by falling objects or the EWP overturning or otherwise making contact. When moving, ensure the machine, ensure the spotter is visible and not at risk of being struck by the EWP. Never continue moving if the spotter is not visible.

## 5.3. Operating procedures

Documenting operating procedures can help define responsibilities and manage EWP activities in a logical and systematic way. In conjunction with manufacturer's instructions, operating procedures ensure the EWP operation is more likely to be carried out safely. Procedures should be prepared to suit the EWP, the work and the working conditions.

Documented EWP procedures may include:

- hazards and risk controls to be applied
- the type of EWP to be used
- the positions of the EWP, a diagram showing a view of the site may be used
- driving guidelines if the EWP is to be driven
- the maximum wind speed the EWP can be used in
- the radius range with confirmation that the platform will be moved within the EWP's capacity at the maximum radius
- the height of the work
- site and environmental conditions, including weather and ground conditions, if outdoors and other work being undertaken in the area
- if lighting is required, such as work being carried out at night
- what approvals are required, if any
- if the use of a spotter is required, and
- the tasks required, who is responsible for performing them and what communication system is to be used.

### Overturn of the machine

Minimising the risk of overturn can be achieved by ensuring the ground is stable, flat and appropriate supports are used if needed. The type of EWP being used should be appropriate for the work and worksite conditions. Overloading the platform or using it to lift heavy loads when the machine is not designed for it can cause the EWP to overturn.

If designed to be used outdoors, ensure the EWP is being used within its wind speed limits. Additionally, consider how windy conditions may affect large objects, leading to a 'sail' effect. The EWP should not be used for pushing or pulling objects outside the work platform unless it is specifically designed to do so. It should not exceed the allowable manual force stated on the manufacturers compliance plate.

Ensure the weight of the EWP does not exceed ground bearing capacity. Ground conditions should be stable when using the machine, movement of earth could cause the machine to destabilise. Slope of the ground may also impact stability, ensure the machine is suitable for the slope of the ground.

If outriggers are used, ensure they are clear of excavations, soft or filled ground, or other obstacles. Outriggers should be regularly checked to ensure stability.

## Moving the elevating work platform

Moving an EWP increases the risk of destabilising and overturning the machine as well as risks of collisions with other plant, structures or people. Extra precaution should be used if travelling through smaller spaces or near any overhead structures, such as doorways, or over ground level objects, such as gutters or pit covers. Using a spotter and operating the machine through the portable or remote controls can assist with improving visibility of surroundings and preventing collisions. EWPs should not be moved with the outriggers extended.

The following safety measures should be applied when moving an EWP:

- retract the boom and lower the platform, if possible
- consider the use of a spotter to alert the machine operator of any possible collisions
- workers on the platform wear a harness that is attached to the anchor point
- ensure the travel path is free of people, objects, plant and structures
- extra caution must be taken if moving across a slope. If moving on a slope, travel with the platform pointing up the hill and ensure the slope does not exceed the machines slope capabilities
- if travelling up a slope ensure there is enough clearance space under any overhead structures
- if travelling over a longer distance, have the boom fully retracted and as close as possible to the ground, and
- drive slowly and steer as smoothly as possible.

If it is not possible to retract the platform and the EWP is to travel with an elevated platform:

- ensure the EWP is designed to do so
- ensure the rated capacity of the machine is not exceeded, and keep any tools or equipment on the platform secured
- be aware of power lines, surrounding structures and other overhead obstructions
- travel slowly and with caution, using a spotter if possible. Travel on flat, smooth surfaces and avoid slopes and soft, uneven or unstable ground, and
- if the EWP is truck mounted, ensure the tyres are inflated to the correct pressure.

## EWP tilt

If the EWP starts to tilt to one side:

- Work should stop immediately and the platform should be lowered or retracted.
- If safe to do so, workers should get out of the platform and attempt to find the cause of the tilt, such as uneven, soft ground or an error with the tyres or machine.
- If unable to determine the cause of the problem, or how to rectify it, advice should be sought from a competent person.
- Work should not be started again until the problem is fully resolved. The EWP may need to be re-located to more stable ground.
- For machine faults, the EWP should be locked and tagged out and assessed by a competent person before returning to service.

## 5.4. Exclusion zones

You should consider setting up exclusion zones when using an EWP in the workplace. Use physical barriers, such as barricades to ensure that people are kept separate from the machine. Where possible, limit the people in the vicinity of the EWPs to the operators and people directly involved with the work. Signage, barriers and markings should be used to guide people and vehicles around the EWP work area where needed.

Loads should not be lifted over public access areas including footpaths, roads, highways, railways, waterways and buildings.

If there is a risk of people being hit by falling objects exclusion zones should be used and barricades should be positioned to keep people, plant and vehicles at a safe distance.

Caution must be taken when loading/unloading an EWP onto a transport vehicle. The transport driver must ensure that there is suitable isolation from passing traffic, that the EWP and transport vehicle are visible.

## 5.5. Falls from a height

Falls from a height are a major risk when using an EWP. Where possible, work should be organised so that people are not working above or below each other. A SWMS is required if the EWP is used in a construction activity where a person could fall more than two metres.

To minimise the risk of workers falling from a height, control measures may include:

- edge protection systems, and
- fall-arrest harness systems

EWPs should have either solid walls or guard rails that are securely attached to the platform and are in good condition. Ensure the gates are locked when not in use. Workers should only enter and exit the EWP using the gate. Workers should not use ladders or climb on railings to gain additional height.

Full safety harnesses, secured to the anchor point, are to be worn by people on the platform of a boom-type EWP. As there is a risk of a free fall, a fall-arrest harness designed for attachment to a lanyard, including a personal energy absorber, should be worn by the people on the EWP. The lanyard should be as short as possible and should only be attached to the designated anchor point.

If a risk assessment determines it is needed, you should ensure workers wear harnesses on other EWP types.

Workers should be aware of the hazards associated with working at heights and trained in the safe operating procedures that are in place to prevent falls. Workers should be able to conduct a visual inspection of the handrails, gate/entry bar and other protective barriers on the EWP to ensure they are in good condition and operating correctly. Harnesses should be worn, correctly fitted, maintained and anchored.

You must ensure that workers have access to first aiders and first aid equipment in the event of a fall.

For further information, see the [Code of Practice: Managing the risks of falls at workplaces](#).

## Accessing and egressing from a raised EWP platform

Under the WHS Regulations, you have specific obligations to manage the risk of a person falling from one level to another. This includes requirements to provide safe means of

access to and exit from an area from which a person could fall, such as accessing or egressing from a raised EWP platform.

It is recommended that EWPs are only used as a working platform and not as a means of entering and exiting a work area. If it is not possible to eliminate the use of an EWP to access or egress a workplace, then you should follow the conditions set out in *AS 2550.10–2006: Cranes, hoists and winches – Safe use – Mobile elevating work platforms* are met.

Where possible, the need for accessing and egressing from a raised work platform should be eliminated. For example, use scaffolding or complete work on the ground.

Where a worker is required to move to and from a raised platform, ensure the edge of the platform is not more than 10cm away from the edge of the structure or work area. In addition, you should:

- ensure a falls arrest system is used with double lanyards,
- ensure there is suitable means to attach the fall arrest system on the structure or work area
- provide edge protection where there is an unprotected edge,
- ensure, where possible, grab rails are used and ensure it is clear where the workers will be stepping
- ensure the platform can be lowered in the event of an emergency
- ensure the raised platform and work area are stable, and
- put tags on the base controls of the EWP so that it is clear that the machine is in use.

## Suspension intolerance

Suspension intolerance, also known as suspension trauma, is a serious illness that can occur if a worker is suspended by their harness for prolonged periods of time (5 to 30 minutes).

You must establish emergency and rescue procedures if falls arrest systems, such as harnesses, are used.

Ensure workers using a harness as fall protection are not working alone and the harness allows for movement of their legs to a horizontal position where possible.

Workers should be trained in rescue procedures. In the event of a fall resulting in suspension, emergency services should be contacted and rescue procedures should start immediately. The rescue attempt must not put other workers at risk.

Suitable rescue equipment should be provided and kept in close proximity to the work area. If the rescue is likely to take more than five minutes, the suspended worker should raise their legs to near horizontal or use footholds where possible.

Immediate first aid should be provided to a person who was suspended from the platform and experiencing any symptoms of suspension trauma, including:

- fainting
- shortness of breath
- nausea
- dizziness
- paleness
- low blood pressure
- loss of consciousness

Once the person is rescued, they should be moved to safe area, if possible, and kept calm and still. First aid should be applied to any other injuries sustained and the harness should be removed or loosened.

See the Australian Resuscitation Council's guideline for harness suspension trauma for more information.

## 5.6. Telehandlers

Telehandlers, or multipurpose tool carriers are machines that have different attachments allowing it to be used for different purposes. While they are most commonly used as forklifts, they can be also used as an EWP.

Telehandlers have similar risks to EWPs, including risk of overturn, falls and colliding with other plant, people, objects or structures.

If using a telehandler with an EWP attachment, you should use the same safety controls as if you were using an EWP. This includes maintaining safe distance from power lines, not overloading the machine and ensuring operators are trained in the use of the machine, including emergency controls. A high risk work licence is required to operate a telehandler with a boom length greater than 11 meters.

When using telehandlers, you should only use the work platform that is specific to the model of the telehandler, fork mounted work platforms should not be used. Be aware of the rated capacity and wind speed capacity as well as any relevant ground conditions and slopes. Operating instructions should be updated to reflect the use of the machine. You must use the attachment that is suitable for the work being carried out.

## 5.7. Hazardous substances

If the EWP is being used for work involving the use of hazardous substances, such as chemicals, the following should be considered:

- avoid having different classes of hazardous substances on the platform at the same time
- review the material safety data sheets (MSDS) to determine the safety measures and other information about that substance
- apply appropriate PPE, the MSDS will identify which PPE is required
- ensure that the solvents or chemicals do not enter any windows or air-conditioning intake registers, and
- mix the chemicals on the ground and only take the required amount in a sealed container.

## 6. Working near electric lines

Electric lines can have significant risks including electrocution, arcing, explosion or fire causing burns, unpredictable cable whiplash and other objects being electrified like signs, poles, trees or branches. Contact with energised overhead or underground electric lines can be fatal regardless of the voltage they carry. It is not necessary to touch an overhead electric line to be electrocuted. A 'flashover' or 'arc' can electrocute people when close to a line conductor.

Ensure, so far as is reasonably practicable, no person or EWP at the workplace comes within an unsafe distance of an overhead or underground electric line.

If this is not reasonably practicable, carry out a risk assessment and implement control measures to manage the risks. The control measures must be consistent with requirements of the relevant electricity supply authority.

A safety observer should be used when the EWP, or anyone working from the EWP are in motion and likely to enter a restricted work zone established around electric lines.

Most risks can be controlled by observing safe working distances for people and EWPs working near electric lines. Safe working distances will depend on the type of work and the voltage of the electric lines. Contact the relevant electricity supply authority to determine the type of control measures required. This may include isolating the electric line for the duration of the work.

Contact with energised overhead electric lines may have an impact on parts of the EWP, for example tyres, hydraulic and electrical systems. If contact occurs, the EWP should be immediately placed out-of-service until it has been inspected by a competent person and proven to be safe to use. If the EWP has inflatable tyres and there is a risk of tyre explosion, the machine should be placed in an appropriate exclusion zone for at least 24 hours after the incident.

Further information can be found in the [General guide for working in the vicinity of overhead and underground electric lines](#).

### 6.1. Approach distances

It can be difficult for EWP operators to see overhead electric lines or judge their height. Prior to starting work, you should determine what approach distances and work zones (see Figure 1) are required for the safe operation of EWPs and the safety of EWP operators and other workers.

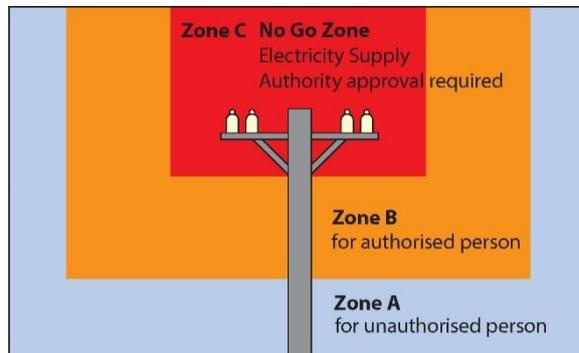
The approach distance for each work zone will vary depending on the voltage of the overhead electric line and the level of authorisation of each person doing the work. As the risk increases a greater approach distance is required.

There are three work zones (see figure 1 below):

- **Zone C** is a No Go Zone closest to and surrounding the electric line where Electricity Supply Authority approval is required. A 'permit to work' may be required.
- **Zone B** surrounds the electric line and is further away than Zone C. It is for authorised people. Authorised people are workers who have successfully completed a recognised training course in overhead line electrical hazards so are permitted to work in Zone B.
- **Zone A** is furthest away from the electric line and is for unauthorised people. Unauthorised people are workers who have not received training in overhead line

electrical hazards and do not have sufficient training or experience to enable them to avoid the dangers from overhead electric lines and associated electrical equipment.

Figure 1 Work zones in the vicinity of overhead electric lines



## 6.2. Controlling risks

Where it is reasonably practicable, the hazard must be eliminated, for example by removing energised electric lines from work areas. Consider:

- de-energising the electric line, or
- isolating and earthing the line for the duration of the work, or
- re-routing the electric line away from the work area.

Where elimination is not reasonably practicable, the risks must be minimised. Consider substituting the hazard or work practice with something safer, for example by:

- using alternative plant that cannot enter an unsafe zone
- using non-conductive tools, or
- using ultrasonic measuring devices to measure the height of overhead lines.

Consider isolating the hazard from people by erecting a physical barrier to prevent any part of the EWP, equipment, person, or anything held or attached to a person, entering Zone B (see figure 1).

Consider using engineering controls like:

- limiting movement of plant with mechanical stops, and
- fitting plant with programmable zone limiting devices.

If a risk still remains, you must use administrative controls like:

- fitting proximity sensors and a warning device to the EWP to alert operators when they are about to enter Zone B.
- making hazards more visible e.g. use warning signs
- managing and supervising the work
- defining areas where plant should not enter e.g. rigid tape barriers or high visibility bunting, and
- avoid working in wet conditions, if possible.

If any risks remain, suitable personal protective equipment must be used, including:

- electrically tested insulating gloves, rubber soled boots and safety helmets
- rubber insulating mat or on an equipotential conductive mat to stand on, and
- dry clothes especially in wet or humid conditions.

A combination of the above controls may be used if a single control is not enough to minimise the risks.

## 6.3. Approach distances for vehicles

Specific approach distances apply to vehicles and mobile plant stowed for transit and driven under overhead electric lines. Consider the voltage of the electric line and:

- the design and transit envelope
- the work activities e.g. person working from the top of the vehicle
- where the distance between the overhead electric line and ground may decrease, and
- the risk assessment factors for operating the vehicle.

Approach distances and work zones in each state and territory vary for people, plant and vehicles depending on the voltage of the overhead electric line, whether the electric lines are insulated or bare, and in some states with or without consultation with the person in control of the energised overhead electric line or exposed part.

For more information contact your state or territory electricity supply authority or [Electricity regulator](#).

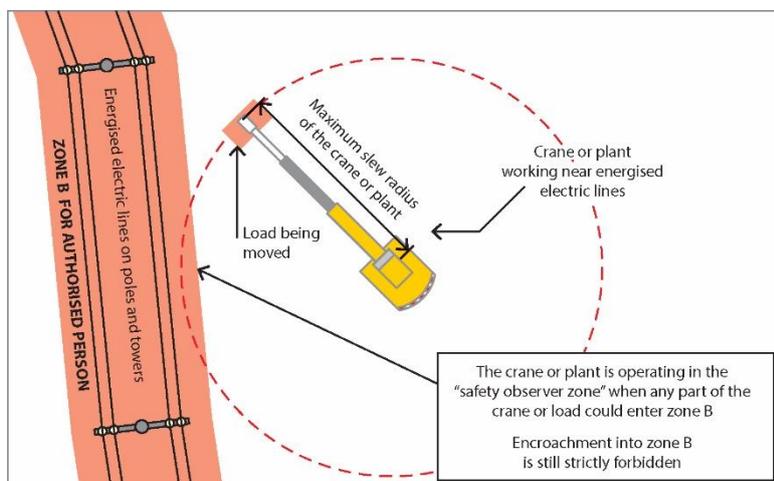
## 6.4. The safety observer zone

An EWP is in a safety observer zone when it is possible that a part of the EWP, a person using an EWP or any equipment or tools being used or held by the person using the EWP could enter zone B operations.

An EWP is not operating in a safety observer zone when:

- high voltage electric lines have been de-energised, isolated or earthed
- limiting devices are used to warn the operator or prevent any part of the EWP from entering Zone B—as long as the limiting device is effective under stress conditions and is regularly inspected by a competent person, or
- physical barriers stop any part of the EWP entering Zone B.

**Figure 2** Safety observer zone for overhead electric lines on poles and towers



## 6.5. Safety observer

A safety observer should be used when the EWP or anyone working from the EWP are in motion and are likely to enter Zone B. The safety observer should:

- mark the border of Zone B with suitable markers e.g. red warning tape easily seen by the EWP operator
- warn the operator if a part of the EWP is about to enter Zone B
- stop unauthorised people entering Zone B
- not be required to observe more than one operating EWP at a time
- communicate effectively at all times with EWP operators and warn them about an approach to Zone B
- be provided with specialist communication equipment where there is a barrier to communication
- be trained to perform the role, and
- have the authority to stop the work at any time.

## 6.6. Training and competence

Authorised people who work closer than Zone B and safety observers who observe the work should successfully complete a relevant training course provided by a registered training authority. They should be assessed as competent to carry out their work tasks in the vicinity of energised electric lines and exposed parts, and written certification should be verified.

Safety observers must be competent to implement control measures in an emergency and to rescue and resuscitate a worker if necessary. Authorised people and safety observers must be re-assessed annually to ensure their on-going competency to rescue and resuscitate and should also be re-assessed to ensure their competency to work in the vicinity of overhead electric lines.

## 6.7. Contact with power lines

If contact with power lines is made:

- stay calm
- do not attempt to climb out of or touch the EWP until a competent person says it is safe to do in case the EWP is 'live'
- if you must leave the EWP, for example in the event of an imminent hazard such as fire, lower it as much as possible before exiting and ensure there is no contact with the EWP and the ground at the same time
- if exiting jump clear to the ground. Do not remain in contact with the EWP when you land on the ground. Shuffle or jump with both feet together away from the EWP as the ground may be charged.
- keep the area clear of people, including workers and pedestrians
- notify the site manager/supervisor and call the relevant authorities immediately
- if possible, follow a competent person's advice and attempt to break contact with the powerline
- if a competent person says it is safe to do so, exit the machine. The machine should be checked for arcing and other damage. Inform the local power authority so they can check and repair the power lines, and
- keep a safe distance from the EWP and the powerlines until help arrives.

See the [Working in vicinity of underground and overhead electricals lines guidance material for further information.](#)

# Appendix A: Pre-operational checklist

<b>Before using the EWP, you should carry out visual inspections and function tests in accordance with the manufacturers instructions or those of a competent person to ensure it is safe. The inspection and testing should be relevant to your type of machine and workplace, which may include but is not limited to the list below.</b>			
<b>Before operating, check:</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
<ul style="list-style-type: none"> <li>the travel warning devices and any other visual and audible alarms are operational</li> </ul>			
<ul style="list-style-type: none"> <li>the load bearing parts of the boom arm are not bent or damaged. If the boom is insulated, ensure it is not compromised by foreign matter</li> </ul>			
<ul style="list-style-type: none"> <li>the logbook has been completed, is up to date and any service requirements have been met (if overdue for a service, do not use).</li> </ul>			
<ul style="list-style-type: none"> <li>the descent equipment, including emergency descent equipment, is operating correctly and the safety release clips are in place and can be removed by hand</li> </ul>			
<ul style="list-style-type: none"> <li>the ground-level operating controls are free of damage, the emergency lowering controls can be operated. Instruction decals for these controls can be easily read.</li> </ul>			
<ul style="list-style-type: none"> <li>platform controls are in good working order. The decals indicating the operation of the controls can be easily read.</li> </ul>			
<ul style="list-style-type: none"> <li>the hydraulic fluids are not leaking and are at an appropriate level. All hydraulic hoses and fittings are securely attached and free from leaks.</li> </ul>			
<ul style="list-style-type: none"> <li>the outriggers are in good working order, with no leaks or damage.</li> </ul>			
<ul style="list-style-type: none"> <li>the brakes are in good working order.</li> </ul>			
<ul style="list-style-type: none"> <li>the platform is clear and free of damage or obstructions, the platform mounting pins are secure and in good condition and the</li> </ul>			

handrails are secure and not bent or damaged.			
<ul style="list-style-type: none"> <li>the rated capacity sign and all safety signs and placards are clearly visible and legible.</li> </ul>			
<ul style="list-style-type: none"> <li>the platform gate or entry bar works correctly and it shuts and catches automatically.</li> </ul>			
<ul style="list-style-type: none"> <li>the manufacturers plate has the: manufacturer's name, year of manufacture, model and serial number, rated capacity, maximum number of occupants, maximum allowable wind speed, supply voltage ratings, weight of EWP, allowable manual forces and cautions and restrictions.</li> </ul>			
<ul style="list-style-type: none"> <li>the knuckle joints for signs of wear or damage. Boom overloading can result in flaking paint or distortion of the knuckle, which can be a sign of damage.</li> </ul>			
<ul style="list-style-type: none"> <li>the tyres are in good condition, with correct pressure according to the manufacturer's specifications. EWPs fitted with pneumatic tyres must only be able to elevate with activated stabilisers.</li> </ul>			
<ul style="list-style-type: none"> <li>the personal protective equipment required is available and in good condition. Any harnesses are connected to the correct anchor points and workers are training in using them correctly.</li> </ul>			
<ul style="list-style-type: none"> <li>all workers involved with the work are familiar with emergency controls and how to lower the machine in an emergency.</li> </ul>			
<ul style="list-style-type: none"> <li>the operator is trained and competent in safely operating the machine, including how to use the controls and holds the relevant high risk work licences.</li> </ul>			
<ul style="list-style-type: none"> <li>the functionality of all safety switches, interlocks and speed limiting devices has been tested.</li> <li>the functionality of all drive and speed functions has been tested.</li> </ul>			