



ACCREDITED SAFETY TRAINING FOR EQUIPMENT OPERATORS

EWP HAZARDS AND CONTROLS

Following are *some* hazards that may be encountered while operating the EWP, and *some* of the possible control measures that may be used.

As a hazard is “*anything that could cause injury, damage, or loss of production*”, that means that everything on the planet is a hazard.

When applying control measures to deal with hazards, the OSH Regulations say that the person must firstly consider means other than the use of protective clothing and equipment. Then, if it is not possible to reduce the risk, consider reducing the risk by using protective clothing and equipment.

When applying hazard control measures, follow the *Hierarchy of Hazard Control*

- **Eliminate**
- **Substitute**
- **Isolate / Engineer**
- **Administration**
- **PPE (Personal Protective Equipment)**

Equipsafe Doc. Name	EWP HAZARDS and CONTROL		
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RISK MATRIX

LIKELIHOOD	CONSEQUENCE			
	MULTIPLE FATALITIES (20)	SINGLE FATALITY (10)	LOST TIME INJURY (4)	FIRST AID INJURY (1)
DAILY / WEEKLY (15)	300	150	60	15
MONTHLY (8)	160	80	32	8
YEARLY (5)	100	50	20	5
10 YEARLY (2)	40	20	8	2
100 YEARLY (1)	20	10	4	1

LIKLIHOOD X CONSEQUENCE = RISK SCORE

DAILY / WEEKLY	The event is expected to occur daily or weekly, in most circumstances
MONTHLY	The event is expected to occur about once a month in most circumstances
YEARLY	The event is likely to occur about once a year
10 YEARLY	The event could possibly happen about once every 10 years
100 YEARLY	The event may only occur in exceptional circumstances, about once in 100 years



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RESIDUAL RISK SCORE

- 50 and over = **High Risk:** detailed research, management planning required at senior levels
- 21 – 49 = **Moderate High:** management approval needed
- 6 – 20 = **Moderate Low:** responsibility must be specified
- 1 – 5 = **Low:** manage by routine procedures

	Hazard	Control Measure
1.	<ul style="list-style-type: none"> • Falls 	<ul style="list-style-type: none"> • Wear a harness correctly fitted and lanyard correctly attached (compulsory – PPE control) • Stand on the floor of the EWP at all times – do not sit or climb on the rails (Admin control) • Do not leave the EWP when it is elevated (Admin control) • Do not use the EWP as a means of access / egress (Admin control) • Plan your work, take care, and think about the job you are doing (Admin control)
2.	<ul style="list-style-type: none"> • Suspension Trauma 	<ul style="list-style-type: none"> • Always have a spotter available who can check on you every 5 minutes, and who knows how to lower the EWP using the ground controls (Admin control) • Have “stirrups” fitted to harnesses, and train the operators in how to use them (PPE control) • Plan your work, take care, and think about the job you are doing (Admin control)



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3.	<ul style="list-style-type: none"> Power lines 	<ul style="list-style-type: none"> Keep a safe distance – observe the “Danger Zone” corridor, and do not enter this area (Elimination and Admin control) Setup barriers, signpost the area (Isolation control) Have power supply isolated or switched off (Isolation control) Have power lines insulated with “tiger tales” (Engineering/Isolation control) Complete a risk assessment (Admin control) Use a spotter / s (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
4.	<ul style="list-style-type: none"> Soft ground Uneven ground 	<ul style="list-style-type: none"> Relocate if possible, Set up on a firm flat, level surface (Elimination and Admin control) Have the ground assessed by a competent person (Admin control) Use a suitable EWP – trailer mounts are lighter and distribute the weight over a larger area. Some mobile units have outriggers and can drive over soft and uneven ground (Substitution control) Use packing boards or steel plates (Engineering control) Plan your work, take care, and think about the job you are doing (Admin control)



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5.	<ul style="list-style-type: none"> Overhead service lines / obstructions 	<ul style="list-style-type: none"> Use a spotter / s (Admin control) Keep a good look out , Look up and live (Admin control) Watch the boom swing (Admin control) Check the flight path from the operator's manual (Admin control) Advise other workers in the area (Admin control) "Flag" the service line with tape, or paint it yellow and black (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
6.	<ul style="list-style-type: none"> Traffic 	<ul style="list-style-type: none"> Close the area off to traffic (Isolation) Get a permit if working over roadways, footpaths, or other public places (Admin control) Barricade area (Isolation control) Erect signs and use flashing lights (Admin control) Use a spotter / s (Admin control) Work during hours when traffic will be lightest (Admin control) Do not set up on a blind corner (Admin control) Wear high vis clothing (PPE control) Plan your work, take care, and think about the job you are doing (Admin control)



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	Hazard	Control Measure
7.	<ul style="list-style-type: none"> Pedestrians 	<ul style="list-style-type: none"> Close the area off to pedestrians (Isolation control) Barricade area or set up witches hats around the perimeter of the maximum possible boom swing (Isolation control) Get a permit if working over roadways, footpaths, or other public places (Admin control) Erect signs and use flashing lights (Engineering control / PPE) Use a spotter / s (Admin control) Work during hours when pedestrian traffic will be lightest (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
8.	<ul style="list-style-type: none"> Obstructions in area – buildings, ladders, other machinery or equipment 	<ul style="list-style-type: none"> Watch boom swing (Admin control) Check with the flight path from operator's manual (Admin control) Advise other workers (Admin control) Keep a good lookout (Admin control) Use a spotter / s (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
9.	<ul style="list-style-type: none"> Mechanical failure of the EWP 	<ul style="list-style-type: none"> Conduct pre-op check, Inspect security of all items (Admin control) Check log book to ensure service schedule is up to date (Admin control) Nobody to be under the EWP when it is raised (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)



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10.	<ul style="list-style-type: none"> Loose items falling from basket 	<ul style="list-style-type: none"> Remove all loose items, tools, rubbish etc from the basket when leaving the EWP (Elimination control) Keep tools etc in a box or container, or on a tool lanyard when using them (Engineering control) Do not leave tools etc lying on the floor of the basket (Admin control) Barricade area underneath maximum possible flight path (Isolation control) Plan your work, take care, and think about the job you are doing (Admin control)
11.	<ul style="list-style-type: none"> Underground services / sumps 	<ul style="list-style-type: none"> Do not work over underground services or sumps etc. the ground may look fine but it could be soft. This can cause a tip-over, or damage the underground service e.g. water pipe etc, or collapse a sump or enclosed pit. (Elimination control) Try to set up elsewhere – you may need to get a different EWP so you can reach. Set up on a firm flat, level surface (Substitution and Admin control) Dial 1100 before you dig – check site plans / maps (Admin control) Ensure adequate weight distribution – use packing boards or steel plates (Engineering control) Have the ground assessed by a competent person (Admin control) Use a suitable EWP – trailer mounts are lighter and distribute the weight over a larger area. Some mobile units have outriggers and can drive over soft and uneven ground (Substitution control) Plan your work, take care, and think about the job you are doing (Admin control)



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12.	<ul style="list-style-type: none"> Lightning 	<ul style="list-style-type: none"> Follow lightning procedure for your site (Admin control) Follow “Flash / Bang” rule – after you see lightning, count the seconds until you hear thunder. Every 3 second means the lightning is one kilometre away. E.g. 30 second gap means the lightning is 10 kilometres away. (Admin control). Do not use EWP if lightning is within a 15 km radius (45 second gap using “Flash / Bang” rule (Elimination control) Plan your work, take care, and think about the job you are doing (Admin control)
13.	<ul style="list-style-type: none"> Untrained or un-inducted operator 	<ul style="list-style-type: none"> All operators using EWP capable of reaching a platform height of 11 metres must hold National Licence Class WP issued by Worksafe, and must have been inducted on the EWP that they have to use (Admin control) Ongoing refresher training and onsite monitoring to ensure competency has been maintained by completing Task Observation checklists, or formal refresher courses (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)



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14.	<ul style="list-style-type: none"> Poor lighting / work at night 	<ul style="list-style-type: none"> Stop work if light is not adequate (be aware of sun glare and other factors that may restrict visibility of other traffic / workers) (Elimination control) Advise supervisor if lighting is not adequate, and do not work until artificial lighting has been set up, or until there is enough daylight (Admin / Elimination control) Set up floodlights or other lighting if you will be working at night or in darkened areas (Admin control) Signpost the area and advise other workers (Engineering / PPE controls) Wear hi-vis reflective PPE (PPE control) Plan your work, take care, and think about the job you are doing (Admin control)
15.	<ul style="list-style-type: none"> Heat / sunburn 	<ul style="list-style-type: none"> Work during the cool part of the day (Admin control) Wide brim for hat (PPE control) Plenty of drinking water (Admin control) PPE – including lightweight long sleeves and trousers (PPE control) Regular breaks (Admin control) Rotate work so you are not exposed for too long (Admin control) Sunscreen (PPE control) Plan your work, take care, and think about the job you are doing (Admin control)



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16.	<ul style="list-style-type: none"> Cold weather 	<ul style="list-style-type: none"> PPE – be aware of hypothermia (PPE control) Rotate work so you are not exposed for too long (Admin control) Regular breaks (Admin control) Be aware in extreme temperatures. Extreme cold can cause wire ropes to snap, and other problems with metal and machinery. Consult the operator's manual. (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
17.	<ul style="list-style-type: none"> Wind 	<ul style="list-style-type: none"> Do not work if it is too windy (Elimination control) Refer to data plate and wind scale, but if you are not comfortable, or do not feel good about the conditions, then CEASE WORK IMMEDIATELY (Admin / Elimination control) Monitor weather conditions – be aware of the possibility of wind gusts (Admin control) Take into account the load you may be working with eg. Roof sheets or signs will act like a sail (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
18.	<ul style="list-style-type: none"> Dust 	<ul style="list-style-type: none"> Do not work if it is too dusty (Elimination control) Monitor wind and weather conditions. Try to plan work so it is not taking part during periods of high dust activity (Admin control) PPE – goggles, dust masks, etc (PPE control) Rotate work so you are not exposed for too long (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)



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19.	<ul style="list-style-type: none"> Rain 	<ul style="list-style-type: none"> Do not work if it is too wet (Elimination control) Monitor wind and weather conditions. Try to plan work so it is not taking part during periods of wet weather (Admin control) PPE – raincoats etc (PPE control) Be aware of hypothermia – keep warm. Have towels and dry clothes available for when you finish - do not wait till you get home to have a warm shower. (Admin control) Rotate work so you are not exposed for too long (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
20.	<ul style="list-style-type: none"> Glare 	<ul style="list-style-type: none"> Do not work if there is too much glare (Elimination control) Ensure you have adequate vision when moving. You may need a spotter and suitable communication methods. (Admin control) Monitor weather conditions. Try to plan work so it is not taking part during periods of high glare (Admin control) PPE – tinted safety glasses etc (PPE control) Be aware of reflective sunburn and use precautions for sunburn (PPE control) Rotate work so you are not exposed for too long (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)



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21.	<ul style="list-style-type: none"> Insects, bees, wasps etc 	<ul style="list-style-type: none"> Relocate. Stop work and advise supervisor. Have harmful insects exterminated, or wait till they move on (Elimination control) Have a professional person advise on work around the hazard (Admin control) Use proper PPE (PPE control) Use insect repellent (PPE control) Ensure emergency procedure in place (Admin control) Ensure adequate first aid equipment available (PPE control) Ensure workers do not have allergies to the hazard that they may be exposed to (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)
22.	<ul style="list-style-type: none"> Overloading 	<ul style="list-style-type: none"> Know the SWL of the EWP, and do not exceed it (Admin control) Weigh, or estimate the total weight of people, safety harnesses etc, and any tools or equipment that is going to be in the basket. Over estimate rather than be conservative. (Engineering / Admin control) Plan your work, take care, and think about the job you are doing (Admin control)



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23.	<ul style="list-style-type: none"> Chemicals / hazardous substances 	<ul style="list-style-type: none"> Be trained to use the chemical or hazardous substance you are using (Admin control) Have a copy of the MSDS (Material Safety Data Sheet) with you (PPE control) Be aware of the requirements of the MSDS and follow the guidelines (Admin control) PPE as per MSDS and site requirements (PPE control) Work downwind from other people, open windows, air conditioning inlets etc. (Admin control) Work from downwind to upwind, so you are always moving away from the substance (Admin control) Plan your work, take care, and think about the job you are doing (Admin control)