Climber

Company logo

Safe Operating Procedure

Activity description

Covers tree climbing and aerial pruning and dismantling. The activity cannot be undertaken alone, and requires the aid of the following personnel:

- **safety observer/rescuer** – to monitor the climber while they are in the tree
- **ground crew** – to remove branches and tree sections from the drop zone, and assist in rigging.

Required accreditations

Tree climbers who work outside the 'ordinary person' safe approach distances from live overhead powerlines (3 metres for powerlines up to 132 kV) must hold the following accreditations:

- arborist qualification and/or appropriate climbing and pruning competencies
- chainsaw competencies
- aerial rigging competencies appropriate to the work being undertaken
- first aid accreditation.

This SOP does not cover tree trimming around live overhead powerlines when working under the authority of an electricity network operator – that is, when working to specified safe approach distances that are inside the 'ordinary person' clearances.

Hazards and controls

Hazard	Control
Eye injuries	Wear safety glasses or face visor while using a cutting tool or undertaking any activity that may result in particles lodging in an eye
Cuts and lacerations	Wear cut-resistant pants when undertaking work that requires the use of chainsaws or other cutting tools
Slips and falls	Inspect the tree for hazards before commencing the climb – do not climb if the tree is dangerous – and continually re-assess the tree while climbing Wear approved climbing gear, including safety boots and suitable hi-vis clothing Use approved ropes, knots and equipment to ascend and descend the tree Inspect all ropes, attachments and climbing gear before, during and after use
Muscle strain and other injuries	Use approved climbing techniques at all times Use appropriate rigging systems to raise and lower loads Use approved cutting and rigging techniques to prune limbs, block down barrels and lower tree sections to the ground.

Noise	Wear hearing protection when using a chainsaw, pole saw or working near noisy machines
Impact from branches or other objects	Wear a climber's helmet while climbing and near overhead hazards Remain aware of nearby hazards, such as hanging limbs, dead wood, interlocked branches, or branches under stress, and take action as required
Impact to ground crew from falling objects	Ensure that all personnel are clear of the drop zone before cutting branches or tree sections, and communicate continuously with ground crew while aloft Use approved rigging techniques and ensure that all personnel involved are competent to perform their role in the rigging operation
Electrocution	Ensure that vegetation being worked on remains outside minimum clearance distances to live overhead powerlines at all times during work activities Keep all parts of the body, and any conductive materials in contact with the body (including uninsulated tools, equipment and tree branches) outside the 'ordinary person' safe approach distances to powerlines – 3 metres for powerlines up to 132 kV. Ensure that a safety observer is actively observing activities from the ground

Safety observer / rescuer

The safety observer/rescuer must be present throughout the operation to watch the climber and assist them to maintain safe clearances from overhead powerlines and avoid other hazards. The observer must not be distracted with other tasks while carrying out this function. They must also be competent in climbing, aerial rescue and first aid.

Equipment inspection

The climber must inspect and assess the condition of all items of climbing equipment before and after they are used each day. The items should also be assessed continuously throughout the day for any signs of excessive wear or damage.

In particular, the following items should be checked and removed from service if non-compliant with company safety standards or the manufacturer's recommendations:

- **harness, helmet and visor**: test date current, visible damage, powdering of webbing
- **lanyard**: deformed buckles, visible damage
- **climbing pants (cut-resistant)**: cuts, tears
- **climbing boots**: ankle support, laces, tread
- **high visibility clothing**: tears or loose pieces that might catch on branches
- **safety glasses, whistle**: signs of damage, cracks, working normally
- **knife**: sharp blade, opens normally
- **blood stopper pouch**: bandage still sealed and sterile

- **ropes**: damage, glazing, abrasions, discolouration, bumps (see checklist below)
- **throw line / bag**: tangles, loose stitching, damaged links
- **carabiners, micro-pulleys, hand/foot ascenders**: jammed parts, deformations, excessive wear
- **figure 8 (Belay)**: deformations, excessive wear (more than 10%)
- **webbing slings**: loose stitching, cuts, abrasions, discolouration
- **chainsaw and polesaw**: see Chainsaw SOP
- **hand saw and other cutting tools**: bent blade, dull cutting edges, loose handle

Rope inspection

Climbing ropes, safety lines and rigging ropes must be inspected before and after use each day. Ropes that show signs of excessive wear or damage must be withdrawn from service and either cut up or discarded.

Ropes should be inspected for the following types of wear, tear and damage:

- **melted or glazed fibres:** including fused fibres from heat, shock loads or high loads; extreme stiffness; charred or melted fibres
- **cut strands and abrasion**: cut strands; broken filaments or yarns; broken internal strands
- **pulled strands:** looped strands that have pulled away from the rest of the rope (if not cut or otherwise damaged, these should be worked back into the rope)
- **discolouration:** fused or discoloured fibres, often brittle and stiff, generally caused by chemical contamination
- **inconsistent diameter:** flat areas, lumps and bumps, generally caused by internal broken strands or shock loading
- **compression:** often appearing as a visible sheen with stiffness in the rope, particularly around the winch drum

Hazard tree inspection

The EWP operator must visually inspect each tree for hazards before commencing work on or near the tree. If the tree is considered unsafe, they must notify their supervisor and discuss alternative arrangements to carry out the tree works.

In particular, the operator should closely assess the condition of the following hazards when inspecting the tree:

- **dead wood in the crown**: particularly if it is extensive and the tree is dying or dead
- **branch stubs**: with cracks, decay, dead wood, poorly formed callus, etc
- **epicormic shoots**: especially if they have become extended branches
- **bark inclusions**: between co-dominant stems or tightly-angled branches
- **large splits or cracks**: especially if extending into the sapwood or heartwood
- **previous failure points**: including dead wood, abnormal growth, callus tissue, decay

- **excessive lean**: especially if the tree is exposed or has poor root anchorage
- **termites**: which may show up as mud runways or galleries in bark cracks
- **fungi and conks**: especially around the base of the tree
- **mistletoe**: hanging in the branches
- **insects or animals:** including beehives, wasps' nests, birds' nests, animal hollows
- **damaged roots**: including severed roots or extensive soil heave near the base of the tree
- **burnt-out trees or root systems**: especially burnt hollows and root voids

Sign-off

Climber: I have been taken through this SOP, and have been given a copy for my own reference. I agree to follow the SOP, SWMS and all other site procedures while at work.					
Name		**Signature**		**Date**	

Supervisor: I have taken the climber through this SOP, checked their understanding of the procedures, and assessed their ability to carry out the tasks under a range of conditions on-site.					
Name		**Signature**		**Date**	