

## Safe Work Instruction - Measuring Clearance to Overhead Power Lines

**DO NOT** use this plant\* or complete this task unless you have been inducted in its safe use and operation by an Authorised Experienced Operator

This SWI may not cover all possible hazards and risks and should be referred to as a control measure in the risk assessment process. Additional training may be required for high risk plant/work. Site and task may change required PPE.

### PERSONAL PROTECTIVE EQUIPMENT



Foot protection must be worn



High visibility clothing must worn

### POTENTIAL HAZARDS AND RISKS

- ⓘ Electrical Shock or Burn**  
Electrical shock or burn from plant contact with live electrical conductors
- ⓘ Slip, Trips, Falls**  
Slip, trip, fall due to uneven or slippery work surfaces  
Slip, trip, fall due to steep working surfaces

### PRE-OPERATIONAL SAFETY CHECKS

- ✓ Complete site specific risk assessment
- ✓ Complete visual plant check before operation
- ✓ Assess the environmental conditions:
  - Power lines are made of metal and are subject to expansion and contraction when heated and cooled. Power lines will sag more on a hot day than a cold day
  - Wind can cause the power lines to swing from side to side
- ✓ Assess the local conditions:
  - During construction works, material may be stockpiled beneath power lines, reducing the distance between the conductors and the ground
- ✓ Check the telescopic pole for any damage such as cracking (Do not use pole if wet)
- ✓ Ensure approved height measuring rods are marked with a current test date and due test date
- ✓ Before use, height measuring rods should be cleaned and wiped thoroughly with a silicon cleaning cloth
- ✓ Allocate a safety observer to be onsite during measuring

### OPERATING PROCEDURES

- ✓ Only approved electronic measuring devices or height measuring rods shall be used
- ✓ Height measuring rods shall not be used above their rated voltage as indicated on their test sticker
- ✓ Check site conditions
- ✓ Position the telescopic pole at the approximate sag/middle of, and 1.0 to 2.0m away from the power line. This should give the lowest clearance and allow the pole to be outside the reach of any swing in the power lines
- ✓ Establish and maintain a firm footing
- ✓ Grip the telescopic pole firmly and extend the telescopic sections until the approximate height of the power lines has been reached.
- ✓ Read and record the height measurement
- ✓ Retract the telescopic pole

- ✓ Relocate to the next section of the power lines and repeat

### ENDING OPERATIONS

- ✓ Ensure telescopic pole is cleaned after use
- ✓ Ensure plant is in good working order and stored in the appropriate location

### DO NOT

- ✗ Do not use if plant is faulty. Attach an Out of Service tag and report fault to your supervisor
- ✗ Do not use telescopic pole if wet
- ✗ Do not touch the power lines with the telescopic measuring pole; it is possible for an 11kV power line to arc over a distance of approximately 1.00 mt.
- ✗ Do not attempt to measure during rain or storm conditions, water can still conduct electricity down the outside of the insulated fibreglass pole resulting in electric shock or electrocution
- ✗ Do not use mobile phone while operating plant

\*Plant in this SWI refers to any machinery, equipment, appliance, container, implement and tool.