

GRAVITY

ELEVATING SOLUTIONS

CONTROLLING ELECTRICAL HAZARD WHILE WORKING AT HEIGHT

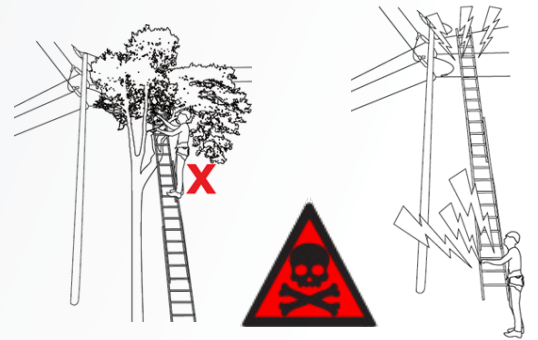
There has been an increase in incidents resulting in electrocution or severe burns caused by the installation of fibre at height, due to overhead powerlines. The consequences of inadvertently touching or working too close to these overhead power lines are severe and will result in serious injury, death or damage to property and the power line grid.

This safety bulletin is intended to give practical steps to minimize and control this electrocution risk by following the steps below when planning to perform work at height.

STEP 1: IDENTIFY THE HAZARD

The site supervisor must ask the following questions before the projects starts and then daily during the completion of the pre-task risk assessment. If the answer is "yes" then the work cannot continue until the work environment has been made safe by following step 2 to 5.

- Will the work area be closer than 15m horizontally to the electrical overhead power lines?
- Will the work area be closer than 6m vertically to the electrical overhead power lines?



***If line voltage is unknown, stop work until voltage has been confirmed.**

STEP 2:

ANNALISE AND EVALUATE THE HAZARD

- What is the voltage of the overhead power line?
- What will the result (consequences) be if a person or equipment enters this safety
- Clearance zone i.e what injuries will result and how severe will they be?

Note: use this voltage of the line to determine the required safety clearance see example below for a 12kV overhead power line.

Maximum r.m.s phase to phase voltage for which insulation is designed kV	To communication lines, other power lines or between power lines and cradles m	To buildings, poles and structures not forming part of power lines m
12 kV	0.8 m	3.0 m

WARNING

Where the clearances are likely to vary due to the flexibility of connections or the remoteness of fixed supports, the above mentioned clearances shall be increased to suit the conditions pertaining, allowing for swing due to wind etc. follow local standards eg SANS 10280 to determine the minimum clearances required.

STEP 3:

DEVELOP AND IMPLEMENT ADMINISTRATIVE CONTROLS BEFORE PROJECT STARTS

- Medical evaluation procedure
- Training program for working in proximity of overhead power lines
- Equipment management for the use near overhead power lines
- Recue and emergency procedure if an electrical incident occurs

STEP 4:

SEEK EXPERT ADVICE FOR SPECIFIC ACCESS METHOD

- Follow competent person- and manufacturer's recommendations, as per the type of access method and overhead power line voltage
- Access methods may include ladders, MEWPs, pole climbing shoes etc.

CONTACT

Gravity Training for the safe use of ladders during fibre installations in the telecommunication environment:

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STEP 5:

IMPLEMENT AND MONITOR CONTROLS

- All workers to wear the correct PPE, monitoring and or warning devices selected in step 4
- Develop and encourage stop work procedure if task or hazard changes and go back to step 1 and restart process

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