

Most contact with overhead power lines is accidental but can result in severe injuries and even death. Fortunately most, if not all, electrical accidents can be prevented. Before you begin any job, whether installing a TV antenna on your roof or constructing a new building, it's important to be aware of power line locations and the necessary safety precautions.

## Working around electricity

Electricity always attempts to travel to the ground and will follow all paths to get there. If a conductor of electricity becomes available, the electricity will follow that path to ground. Tools and equipment you use, and even your own body, are excellent conductors. What does this mean? Let's say you're using a ladder to do some work around your house. If that ladder accidentally touches an overhead power line, the ladder (and you) could become the path for the electricity, sending electricity through the ladder and your body, which can cause severe injuries or even death.

## Minimum clearances

Always look up first for overhead power lines. If you see some in the area, there is a MINIMUM clearance of 10 feet which should be maintained. The minimum clearance increases as the voltage increases. Minimum clearances can also be affected by weather conditions, the type of work being performed, the equipment being used and other factors. Additional minimum clearances for various voltages are shown in this chart.

| Line voltage | Minimum clearances |
| :---: | :---: |
| Up to 50,000 volts | 10 feet |
| 50,000 to 200,000 volts | 15 feet |
| 200,000 to 350,000 volts | 20 feet |
| 350,000 to 500,000 volts | 25 feet |
| 500,000 to 750,000 volts | 35 feet |
| 750,000 to $1,000,000$ volts | 45 feet |

## Equipment and overhead lines

- Use a clean dry wood or fiberglass ladder if electric lines are anywhere in the area. They are less likely to conduct electricity than a metal ladder.
- When installing an antenna, position it at least 1.5 times its total length away from power lines. If it starts to fall, let it go and stay clear.
- Be certain to maintain a safe clearance when the bed of a dump truck is raised.
- Know the minimum distance a crane can operate safely near a power line. Keep all parts of the crane and its load outside this area. If your crane does come in contact with an overhead line, don't leave the cab, call 9-l-l and the power company immediately.
- Designate a worker responsible for signaling the crane operator when any part of the crane or its load approaches the minimum clearance limit. The worker should never touch the crane.
- Some jobs may require the line be de-energized to complete the task safely. The power company will work with you to determine if this is needed.
- Do not rely on proximity warning devices such as hook insulators or boom guards, because each has its limitations.
- Take time to plan any job and contact your local power company if you have any questions.

