

# Powerline Safety

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Municipal employees often work in locations near power lines. Chances are high that employees who work with bucket trucks, dump trucks, ladder trucks, excavators, backhoes, scaffolds, ladders or other long reach equipment are also working dangerously close to overhead or underground power lines. Many times employees working in these situations believe they are “safe” because they don’t contact the power line. What these employees, as well as many people, fail to realize is that electricity can and will arc from the line to you or the piece of equipment you’re working with such as an excavator or ladder truck. The airspace around the power line is just as dangerous as the line itself. The safe distance away from the line is determined by the voltage of the line. The higher the voltage, the more likely it is for an arc to occur and the distance the electricity can travel is greater.



If you’re working around power lines, keep a safe distance from the lines. **If you’re not sure of the voltage, you should be at least 10 meters (33 feet) away from the lines and your equipment should be at least 6 meters (20 feet) away.** Use a spotter to make sure you’re maintaining this minimum safe distance. The spotter should stand at least 10 meters away from the vehicle in case an electrical contact occurs. **Contact with power lines carrying less than 750 volts can kill you, seriously injure you and result in loss of equipment or other property damage.**

- Before you start work, be sure you and your co-workers know where all the power lines are located **above and below** the ground. **Consider them energized and dangerous.**
- Keep at least 3 meters away from all power lines (or more, depending on the voltage see chart below).
- Call for a cable-locate before you dig to avoid contacting underground power lines.
- Call your local power provider when it’s necessary to have power lines insulated, de-energized or moved.
- Before moving ladders, rolling scaffolds or elevating work platforms, always check for overhead lines.
- Request training for working near power lines from your local power company annually.

<b>VOLTAGE PHASE TO PHASE</b>	<b>Minimum Safe Working Distance</b>	
	<b>Metres</b>	<b>Feet</b>
<b>0 to 50,000V</b>	<b>3</b>	<b>10</b>
<b>Over 50,000V to 200,000V</b>	<b>4.5</b>	<b>15</b>
<b>Over 200,000V to 350,000V</b>	<b>6</b>	<b>20</b>

Should you ever find yourself in a situation where your equipment has made contact with a power line, remain calm. If you make one wrong move, a serious injury or fatality is likely to occur. The equipment you are operating is now charged and the electricity is looking for a path to ground. **As long as there is not another hazardous situation that is threatening your life, it is much safer to remain in place until the line has been de-energized.**



- Remain calm and stay in place.
- Call or have someone call for help.
- Do not touch anything outside of the equipment. You might create another path to the ground for the electrical current.
- Warn others to stay at least 20 feet away from the equipment.

**If it is absolutely necessary to exit the machine due to fire or other hazards, you must do so without touching the equipment and the ground at the same time. To exit the equipment:**

- Jump as far out as possible and make sure you do not fall back against the machine.
- Land with both feet together and shuffle your feet a few inches at a time making sure to never break contact with the ground or cause separation between your feet.
- Don't walk or run. Get to a safe area at least twenty feet or more from the equipment.

**The best protection from this type of situation is training and awareness of power lines. Contact your local power company today for training to best protect your employees.**

