

Farming Safely Near Electrical Lines

Working around electrical power lines and wires can cause serious injury or death if proper precautions are not taken. Accidental electrical contacts have, over the years, taken the lives or seriously injured a number of farmers, farm family members, and farm employees.

ELECTRICAL FACTS AND PRINCIPLES

Understanding a few important facts can be difference between life and serious injury or death.

- Most overhead power lines have no protective insulation. Any physical or equipment contact with them could be dangerous.
- Non-metallic materials, such as lumber, tree limbs, tires, ropes, straw and hay, can conduct electricity, depending on moisture content and surface contamination.
- When people or any objects touch or come too close to a power line, arcing could occur causing an instant flow of electricity through them to ground.
- The flow of electricity through the human body can burn, severely injure, or cause death. Less than one ampere of electricity can kill.
- The flow of electricity into the ground around equipment or around a person in accidental contact with a power line, or surrounding a fallen power line itself, can be dangerous to bystanders. The electricity can flow through the ground and electrocute those who come close.
- The clearance under the electrical transmission lines can drop 10-15 feet when under electrical load. In the summer when demand is high there is a higher load of electricity transmitted through the

line. This, along with high temperatures, causes the lines to sag and be lower to the ground. Therefore farmers must look at the lines and determine transmission line heights because the height can change.

LEARNING FROM OTHERS' MISTAKES

Farmers, family members and farm employees have been seriously injured or killed while performing the following outside activities:

- Moving farm machinery, hoppers, bins, sprayer booms, cultivator wings, grain augers, bale elevators, scaffolds and portable buildings into power lines.
- Touching power lines with tools.
- Clearing storm-damaged trees, limbs or other debris that are touching power lines or are close to fallen power lines.
- Cutting down trees or pruning limbs that fall into power lines.
- Trying to move or relocate fallen electric wires.
- Lifting power lines by hand or with lumber or farm tools when moving high loads or buildings.
- Raising or carrying ladders, poles, rods, irrigation pipes or eaves troughing into power lines.
- Raising dump truck boxes, front end loaders, well digging equipment or farm equipment into power lines.
- Touching or standing close to equipment or its load that is in contact with power lines.

- Working at elevated positions such as haystacks, equipment or trailers.
- Digging into underground power lines.
- Attempting to rescue a person in contact with live wires or equipment that is touching power lines.

PREVENT ELECTRICAL CONTACT ACCIDENTS

Take a good look around your operation. Note the location of all overhead power lines. Review your operation's activities and work practices near these lines. Remember, if you come in contact with a power line, a serious injury could occur. Even allowing equipment to come too close to power lines is dangerous, as it may result in a flashover with the same effects as direct contact. If equipment or objects must be moved in the vicinity of overhead power lines, use extreme care. Watch the wires carefully and get someone to guide you if possible. Move equipment slowly and carefully, maintaining a safe distance of at least 10 feet from the power line.

If you come across power lines that are too low or need to be moved, contact your local power company service provider.

If you are planning to dig, first locate any underground utility lines. For assistance, call 811 to reach your state's "Dig Safe" or "Underground Alert" hotlines.

For more information, contact your Zenith Safety & Health Consultant.