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ELECTRICAL SAFETY FACT SHEET

FARMING AROUND POWER LINES

The rush to harvest can yield higher numbers of electrocution, shock and burn injuries. Nationwide, an average of 64 agricultural workers are electrocuted and hundreds more injured in farm electrical accidents each year. Farm workers can avoid tragic accidents by taking note of farm activities that take place around power lines.

“Equipment contacting overhead power lines is the leading cause of farm electrocution accidents in the Midwest,” says Bob Aherin, University of Illinois Agricultural Safety Specialist. “Many of these accidents occur near grain bins, when augers make contact with power lines”

Many types of farm equipment can come in contact with overhead power lines, creating a direct path for electricity. Tractors with front-end loaders, portable grain augers, fold-up cultivators, and equipment with antennas can easily become electrical hazards and must be operated with care. Remember the 10 feet 360 degree rule – keep equipment below, to the side and above power lines.

Here are some safety considerations for farm workers:

- Always lower portable augers or elevators to their lowest possible level - under 14 feet - before moving or transporting; use care when raising them.
- Be aware of total height when loading and transporting larger tractors with high antennas.
- Always use a spotter or someone to help make certain that contact is not made with a line when moving large equipment or high loads.
- Do not use metal poles when breaking up bridged grain inside and around bins.
- As in any outdoor work, be careful not to raise any equipment such as ladders, poles or rods into power lines. Remember, non-metallic materials such as lumber, tree limbs, tires, ropes, and hay may also conduct electricity under certain conditions.
- Use qualified electricians for work on drying equipment & other farm electrical systems.
- Apply decals to all equipment that may pose electrical hazards and explain decals to workers who use the equipment.
- Inspect farm equipment for transport height and determine clearance with any power lines under which the equipment must pass.
- Review the option of underground utility supplies for new or replacement power lines.
- Review location, operation, and importance of your standby power system with workers.
- Train seasonal employees to be aware of risks for potential electrical shock on the farm even if they only work temporarily.
- Never attempt to raise or move a power line to clear a path.

“It’s also important for operators of farm equipment or vehicles to know what to do if the vehicle comes in contact with a power line,” Hall says. “It’s almost always best to stay in the cab and call for help. Warn others who may be nearby to stay away and wait until the electric utility arrives to make sure power to the line is cut off.”

“If the power line is energized and you step outside, your body becomes the path and electrocution is the result,” Aherin said. “Even if a power line has landed on the ground, the potential for the area nearby to be energized still exists. Stay inside the vehicle unless there’s fire or imminent risk of fire.” In that case, the proper action is to jump – not step – with both feet hitting the ground at the same time. Do not allow any part of your body to touch the equipment and the ground at the same time. Continue to hop or shuffle to safety, keeping both feet together as you leave the area.

Once you get away from the equipment, never attempt to get back on or even touch the equipment. Many electrocutions happen when the operator dismounts and, realizing nothing has happened, tries to get back on the equipment.

It is very important that all farm workers and seasonal employees are informed of electrical hazards and trained in proper procedures to avoid injury.

The overhead electric wires aren’t the only electrical contact that can result in a serious incident. **Pole guy wires are grounded to the neutral; but, when one of the guy wires is broken, it can cause an electric current disruption. This can make those neutral wires anything but harmless.** If you hit a guy wire and break it, call the utility to fix it. Don’t do it yourself. When dealing with electrical poles and wires, always call the electric utility.

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Farmers may want to consider moving or burying power lines around buildings or busy pathways where many farm activities take place. If planning a new out building or farm structure, contact your power supplier for information on minimum safe clearances from overhead and underground power lines.