



Tool Box Safety Topic

Working in Close Proximity to Overhead Power Lines

Introduction:

Overhead power lines can cause death or serious injury if accidental contact is made. All employees must be aware of the hazards of working around overhead power lines and how to minimize the chance of contact.

Prevention:

- Identify all overhead power lines on the work site. Install signage and visual warning devices as necessary to ensure all employees are alerted to the hazard.
- Assume all power lines are energized and avoid contact at all times.
- Notify and work closely with the utility company during the project to eliminate or minimize the risk of contact with the lines.
- When operating equipment or working near overhead lines, whether in an elevated position or on the ground, the person or conductive object must not approach an unguarded and energized line closer than the following distances:

Very high voltages require distances greater than 10 feet.

- For voltages to ground 50kV or less = 10 feet
- For voltages to ground over 50kV = 10 feet plus 4 inches for every 10kV over 50 kV

- Know the height of your equipment and height of power lines.
 - Overhead clearances may change during the course of a project due to grade, environmental, and electrical demand variations, etc.
- A qualified spotter is required when it is difficult for the operator to judge and maintain proper distances and when passing under overhead power lines.
- Utilize “Stop Work” authority whenever equipment breaches the allowable clearances for work or for travel.
- All ladders being used around power lines must be made of non-conductive materials.

If Contact With Powerlines Is Made:

- Stop, shift into neutral, set parking brake, shut off machine and avoid touching metal inside of vehicle. Stay seated on the machine until a qualified power company representative tells you it is safe to do so.
- Notify the utility company immediately and call 911 if necessary. Secure the area and keep everyone out of the secured area.
- Do not attempt to make physical contact with the operator or equipment if you are on the ground. Contact with the equipment and ground at the same time could injure or kill you.
- If you must leave the equipment due to smoke, fire, or other danger:
 - You must leap as far from the equipment as possible while maintaining your balance and avoiding all contact with the machine.
 - You must land with both feet together on the ground simultaneously.
 - Keep your feet side-by-side while you scuffle away from the equipment towards safety.
 - Do not lift your feet, scuffle only.
 - Do not shuffle your feet more than 8 inches apart from each other.
 - Do not allow anyone to come to your aid until you are clear of the high voltage zone.
- Ensure equipment is inspected before further use.

Test Questions for Overhead Power Lines

1. All overhead power lines should be flagged, marked and signage installed before work begins.

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2. A spotter is required when a machine is working close to overhead power lines.

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3. Signage must be visible from only one direction on the ROW.

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4. If your machine hits an overhead power line and the line is knocked down, the operator should shut off the machine, get off and look at the damage immediately.

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5. Once the signage, flags and markers are up, you never have to inspect them.

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6. If the operator gets closer than the allowable working and travel distance, the spotter should not say anything. The operator knows best.

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7. If a machine comes into contact with power lines, it needs to be inspected before further use.

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ANSWERS:

1-T; 2-T; 3-F; 4-F; 5-F; 6-F; 7-T

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