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BIE SAFETY ADVISOR

Overhead Power Line Safety

Electrocution remains a major cause of deaths in construction. Part of the reason is that at home and on the job we take electricity for granted. This can lead to familiarity and a false sense of security. Relying on the benefits of electricity, we may forget its hazards. Historically, electrocution accounts for about 20% of all fatalities in construction. Some people think that only cranes are involved in overhead contacts with electrical power lines. But backhoes, dump trucks, and low-tech equipment like ladders and rolling scaffolds have also been involved.

All construction workers should be aware of electrical hazards on the jobsite. When it comes to electrical safety, there is no room for carelessness or complacency. It seems as if ALL jobsites have power lines running through them. Plus, workers are using metal extension ladders, boom lifts, and scaffolds – all tools that can come into contact with overhead power lines.

Precautions to Minimize the Risk of Electrocution to Your Employees:

Conduct initial and daily surveys of the worksite for overhead power lines.

LOOK UP!

Consider all overhead power lines as energized until the electric utility indicates otherwise or an electrician verifies that the line is not energized and has been grounded.

In construction work, an overhead power line safety component should be part of your company's overall safety and health program and safety training to help workers recognize and control the hazards of contact with overhead power lines.

If overhead lines are present, call the utility company and find out what voltage is on the lines. Ask if the utility company can shut down the lines while you are working near them.

If overhead lines cannot be shut down, ask the utility company if they can install insulation over the lines during the time you will be working near them.

Best safety practice: Never get closer than 10 feet to an overhead line

If the lines cannot be shut down and/or insulation applied, a minimum safe distance of 10 feet must be established. Have a brief job site meeting to discuss the planned work as it relates to the power lines. Discuss topics such as the use of long-handled tools and equipment (raised dump trucks, back hoes, etc.) that could come in contact with the lines.

Consider the need for a designated person to monitor activities around the lines.

Monthly Toolbox Talk

Overhead Power Line Work Safe Tips

Overhead Power Line Safety Basics

- Never get closer than 10 feet to a power line!
- Conduct initial and daily surveys of the worksite and implement control measures and training to address hazards at the site.
- Don't operate equipment around overhead power lines unless you are authorized and trained to do so—**Look Up!**
- If an object (scaffolds, crane, etc.) must be moved in the area of overhead power lines, appoint a competent worker whose sole responsibility is to observe the clearance between the power lines and the object—**Look Up!**
- Warn others if the minimum distance is not maintained.
- Never touch an overhead line if it has been brought down by machinery or has fallen.
- Never assume lines are dead.
- When a machine is in contact with an overhead line, DO NOT allow anyone to come near or touch the machine.
- Stay away from the machine and summon outside assistance.
- Never touch a person who is in contact with a live power line.
- Get certified in CPR; cardiopulmonary resuscitation.
- When working near overhead power lines, the use of non-conductive wooden or fiberglass ladders is recommended.
- Aluminum ladders and metal scaffolds or frames are conductors of electricity.
- Avoid storing materials underneath or near overhead power lines.

Contact with Vehicles

- If you should happen to be in a vehicle that is in contact with an overhead power line, DON'T LEAVE THE VEHICLE. As long as you stay inside and avoid touching metal on the vehicle, you may avoid an electrical hazard.
- If you need to get out to summon help or because of fire, jump out without touching any wires or the machine, keep your feet together, and hop to safety.
- When mechanical equipment is being operated near overhead power lines, employees standing on the ground should not contact the equipment unless it is located so that the required clearance cannot be violated even at the maximum reach of the equipment.

Tool Safety Considerations

- Always use tools that work properly.
- Tools must be inspected before use and, those found questionable, removed from service and properly tagged.
- Tools and other equipment should be regularly maintained.
- Inadequate maintenance can cause equipment to deteriorate, resulting in an unsafe condition.
- Tools using handle energized conductors must be designed and constructed to withstand the voltages and stresses to which they are exposed.
- Use the personal protective equipment appropriate for the job that is performed.
- PPE may consist of rubber insulating gloves, hoods, sleeves, matting, blankets, etc.
- Inspect before each use and test annually.