



066: Power Lines

Background

Electrocution is the second leading cause of death within the construction industry.

Contact with overhead power lines is the number one source of electrocutions among construction workers.

Many of these occur when people are using cranes, metal ladders, scaffolds, conveyors, front-end loaders, and dump trucks.

Proper planning and attention would eliminate nearly all of these electrocutions.

Keeping your distance

Consider every overhead line energized, until the utility verifies it is not energized and grounds it.

Remember the number ten. That is, keep yourself and equipment at least 10 feet away from power lines that are 50KV or less. Allow for line movement, due to wind. Keep in mind this clearance must include everything in your hands.

For lines of greater than 50KV, add a half-inch of clearance for each 1000V extra. That works out to an extra foot of clearance for each 24KV extra.

Be sure you can see the area above you before raising your bucket or other platform or climbing a ladder.

If you can't see how close horizontally you would get to the line, ask someone to watch while you work. To ensure this has the intended effect, this person should do nothing but watch you and your clearances. The communications between you should be instant, clear, and reliable.

Cautions

Use only tools and ladders that are nonconductive.

Use only tools designed to withstand the voltages around which you'll be working.

Use the PPE appropriate for the job. Insulated rubber gloves need to be rated for the voltage you might come into contact with, and you need to wear an appropriate hardhat.

Ensure first-aid and CPR are available onsite.

Ensure emergency communication is available onsite.

If possible, have transportation available on site. Normally, this is exactly what happens—the bucket truck itself can carry you to an emergency room if need be. If you have a choice of being dropped off at a location with a ladder and some tools or taking a truck, take the truck.

Related items

Don't put anything between your hardhat's shell and suspension system.

Pay attention to cold weather or hot weather safety as conditions warrant. Fatigue or heat stress can cause you to be inattentive.

Discussion leader duties for this session:

Obtain your company's policies on overhead power lines and be familiar with them.

What this Safety Talk covers:

Overhead power lines and the cautions to take around them.

Discussion notes :

