



Contractor Beware

Electrical Safety Slide Show Presenter's Notes

Slide 1

Before darkening the room, offer a welcome and overview. Begin by introducing the program and its topic:

- *Today's training session focuses on working safely around overhead and underground electric power lines. By following the procedures we'll cover here today, you can help keep yourself and your co-workers safe and on the job. On the other hand, if you cut corners where power lines are concerned, you put yourself and your co-workers at risk of serious injury and even death. Please pay careful attention and ask questions if you don't understand.*

Darken the room.

Click for the second slide.

Slide 2

Begin when the title appears.

- *Respect the power of electricity. Follow some simple best practices before starting work.*

Click for first bullet.

- *When you arrive at a job site, always identify power lines and high-voltage equipment and point them out to your co-workers. Review proper safety procedures before beginning work.*

Click for second bullet.

- *Assume all overhead power lines are energized, including service drops running between poles and buildings. These wires may look insulated, but any coating you see is designed to protect the lines from weather, not to protect you from shock. Contact can still be deadly, so keep your distance.*

Click for last bullet.

- *Check the site daily, because conditions may change. Always survey the site before beginning the day's work.*

Click for next slide.

Slide 3

Begin when the title appears.

- *For tools and equipment other than cranes and derricks, always observe the 10-foot rule. (Cranes and derricks on construction sites may require greater clearances, which we will discuss on the next slide.)*

Click for first bullet.

- *OSHA requires that you keep yourself and your equipment at least 10 feet away from overhead power lines. This applies to all personnel, tools, and equipment other than cranes and derricks. Be aware that wind can move long or tall equipment, so build in some extra distance in case of an unexpected shift.*

Click for second bullet.

- *Higher-voltage lines require greater clearances. Contact Westar Energy for clearance information. Remember that your best practice is always to stay as far away as possible from power lines.*

Click for third bullet.

- *If your job requires you to work closer than 10 feet from power lines, call Westar Energy well in advance to make safety arrangements. They will take steps to help you work safely. Cutting corners and failing to call could have life-threatening and livelihood-threatening consequences.*

Click for fourth bullet.

- *Electrical safety distances given here are minimums.*

Click for last bullet.

- *Always use the maximum possible distance, and clearly mark boundaries with tape, signs, or barricades to keep workers and equipment the required distance away.*

Click for next slide.

Slide 4

Begin when the title appears.

- *Cranes and derricks used in construction require different safety precautions than other equipment, due to an OSHA rule effective November 2010.*

Click for first bullet.

- *Keep the crane boom and load at least 20 feet away from the line if the voltage is unknown. Always assume the line is energized, and allow nothing closer than 20 feet unless you have confirmed with the utility owner or operator that the line has been deenergized.*

Click for second bullet.

- *As voltage increases, clearance distances also increase. Consult Westar Energy and the OSHA regulations at www.osha.gov for specific clearance requirements and encroachment prevention precautions.*
 - *Once you have established the required clearance, clearly mark an obvious boundary to keep workers and equipment the required distance away.*

Click for third bullet.

- *If you are in doubt about line voltages, clearance requirements, or how to work safely near power lines, contact Westar Energy.*

Click for the next slide.

Slide 5

Begin when the title appears.

- *Use a dedicated spotter when working near overhead lines.*

Click for first bullet.

- *Always use a dedicated, qualified spotter on the ground to safely judge distances between hoisting equipment and power lines. From the ground, he or she will have the clearest vantage point and be best able to judge distances correctly.*

Click for second bullet.

- *Crane and derrick operators: Maintain continuous contact with a dedicated spotter to comply with electric line clearance requirements.*

Click for third bullet.

- *The spotter's only responsibility should be power line safety. Don't divide the spotter's attention with other tasks. To be effective, the spotter must make spotting and clear communication with the equipment operator the top priority.*

Click for next slide.

Slide 6

Begin when the title and graphic appear.

- *Call before you dig. Underground power lines can pose an unseen but very real danger.*

Click for first bullet.

- *Call the underground utility locator service at 811 or the toll-free number at least two working days before you dig or move earth in any way. They will arrange to mark underground utility lines so you can dig safely. Be sure to leave adequate time in your job schedule. The service is free, but the costs of not calling can be very high. Building in a few extra days for the job costs less in the long run than spending months or years recovering physically and financially from a power-line accident. And remember, it's the law.*

Click for second bullet.

- *Before you call, white line your excavation route so locators can easily identify and mark affected utilities.*

Click for last bullet.

- *If you don't call and you hit an underground line, you or your co-workers could be hurt or killed. You may also be held liable for damages. Don't risk it. Call before you dig.*

Click for next slide.

Slide 7

Begin when the title appears.

- *Dig safely. After you call, the underground utility locator service will arrange for each utility to send someone out to mark underground lines.*

Click for first bullet.

- *Talk to the property owner. Ask about any private underground lines that may not belong to a utility and so would not be marked by the locator.*

Click for second bullet.

- *Respect the marks. Maintain utility locator marks and follow them when digging. Remember that calling for a locate is just the first step. This system works only if you follow the locator marks whenever you dig in the vicinity of underground utilities.*

Click for third bullet.

- *Dig with care. Hand dig within **24** inches of each side of the marks. Local law may require a wider clearance. Use hand tools **ONLY** within this safety zone. Too many accidental utility contacts have occurred when someone dug with a backhoe instead of a shovel.*

Click for fourth bullet.

- *Know the underground utility code. Utilities use these colors to mark their lines. Learn the code to stay safe.*

Click for chart and point as you speak. The explanation of each color will appear automatically.

- *Red: electric power lines.*
- *Yellow: gas, oil, or steam pipelines.*
- *Orange: communications lines, cables, or conduit.*
- *Blue: potable water.*
- *Purple: reclaimed water, irrigation, and slurry lines.*
- *Green: sewers and drain lines.*
- *Pink: temporary survey markings.*
- *White: Your proposed excavation.*

Click for next slide.

Slide 8

Begin when the title appears.

- *If heavy equipment contacts a power line, it's critical to follow proper safety procedures.*

Click for first bullet and photo.

- *Both the equipment and the line should be considered energized.*

Click for second bullet.

- *If you can do so safely, move the equipment away from the line.*

Click for third bullet.

- *Stay on the equipment. Anyone on the equipment is safe from shock as long as they stay put.*

Click for fourth bullet.

- *Warn others to stay away. In a power-line-contact situation, people on the ground are in the greatest danger of shock.*

Click for fifth bullet.

- *Call 911 and Westar Energy immediately. Their personnel will respond quickly, switch off the power, and tell you when it is safe to leave or move the equipment. Wait for their instructions.*

Click for sixth bullet.

- *If fire or other danger forces you off the equipment, follow the proper jump-off procedure.*

Click for first sub-bullet.

- *Jump clear, keeping both feet together and without touching the equipment and the ground at the same time. If you touch the equipment and the ground at the same time, you could be shocked. Make every attempt to land on both feet at the same time.*

Click for second sub-bullet.

- *Then shuffle away with small steps, keeping both feet together and on the ground at all times, or hop away on two feet, keeping both feet together. Resist the temptation to run or take long steps because this puts you at risk for shock.*

Demonstrate the jump-off procedure.

Click for the next slide.

Slide 9

Begin when the title appears.

- *So let's review the key points of this presentation.*

Click for first bullet.

- *Identify all power lines and electrical equipment upon arrival at a job site. Recheck the site daily. Always alert your co-workers to the presence of power lines and electrical equipment.*

Click for second bullet.

- *Keep yourself and all tools and equipment (other than cranes and derricks) AT LEAST 10 feet away from all overhead power lines. Always assume that lines are energized.*

Click for third bullet.

- *Cranes and derricks used in construction may require clearances greater than 10 feet and encroachment prevention precautions.*

Click for fourth bullet.

- *Build in extra safety distances. Remember that wind can move equipment.*

Click for fifth bullet.

- *Always use a dedicated spotter to monitor distances between equipment and overhead power lines.*

Click for sixth bullet.

- *Call the underground utility locator service at 811 or the toll-free number before you dig. Be sure to call at least two working days before any digging or other earth-moving operations, and respect the marks. Hand dig within 24 inches of marked utilities.*

Click for last bullet.

- *If a power line contact occurs, follow proper safety procedures and immediately call 911 and Westar Energy .*

Click for the title slide. Bring up the lights.

Slide 10

Begin when the title appears.

- *To reach the underground utility locator service, call 811 or Westar Energy Customer Contact Center at 800-383-1183.*

Slide 11

Begin when the title appears.

- *In case of emergency, call Westar Energy Customer Contact Center at 800-383-1183.*
- *For additional information, visit Westar Energy's website at www.westarenergy.com/safety*

Click for the final slide.

Slide 12

Begin when the title appears.

- *Thank you for your attention.*

Take questions and begin discussion.

The trainer's guide includes more detail about how electricity works, when to contact Westar Energy, what sort of materials and objects conduct electricity, and other information.

Discuss how this information conflicts with what your audience believed about electricity, and ask how they may have put themselves or others at risk in the past. Ask what they would have done differently had they had this training before.

Westar Energy thanks you for helping to keep workers safe.