

Contractor Beware

Slide Show Presenter's Notes

Slide 1

Before darkening the room, offer a welcome and overview. If you are using the poster, point it out to participants and encourage them to refer to it when they need to review this material later.

Begin by introducing the program and its topic:

- *Today's training session focuses on working safely around overhead and underground electric power lines and near natural gas pipelines. By following the procedures we'll cover here today, you can keep yourself and your co-workers safe and on the job. On the other hand, if you cut corners where utility 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.

- *Always follow some simple best practices before starting work.*

Click for first bullet.

- *The first thing to do at any job site is survey the area and note the location of all power lines and electrical equipment such as transformers. Point them out to your co-workers and review proper safety procedures.*

Click for second bullet.

- *Treat all power lines as energized. Some service drop 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.

- *Remember that conditions at the job site can change from day to day. Always survey the site before beginning the day's work.*

Click for the next slide.

Slide 3

Begin when the title appears.

- *The minimum safe distance from power lines is at least 10 feet away.*

Click for first bullet.

- *OSHA requires a minimum distance of 10 feet away from overhead power lines for all personnel, tools, and heavy equipment. Be aware that wind can move cranes and other equipment; so build in some extra distance in case of an unexpected shift.*

Click for second bullet.

- *10 feet is a minimum safety clearance from power lines. OSHA regulations require greater distances for lines of more than 50,000 volts. Contact PG&E for specific safety clearances, and remember: 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 be closer than 10 feet from ANY power lines, call PG&E well in advance of beginning work. They will take steps to help you work safely. Again, cutting corners and failing to call could have life-threatening and livelihood-threatening consequences.*

Click for the next slide.

Slide 4

Begin when the title appears.

- *When working with heavy equipment around overhead lines, remember to designate a spotter.*

Click for first bullet.

- *The spotter should be on the ground where he or she will have the clearest vantage point and be able to judge distances correctly.*

Click for second bullet.

- *The spotter's ONLY job should be to monitor the distances between heavy equipment and power lines. Don't have the spotter doing double duty. To be effective, the spotter's attention must be on the equipment and the power lines at all times.*

Click for the next slide.

Slide 5

Begin when the title appears.

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

Click for first bullet.

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

Click for second bullet.

- *Anyone on the equipment is safe from shock as long as they remain on the equipment.*

Click for third bullet.

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

Click for fourth bullet.

- *Have someone call 911 and PG&E 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 fifth bullet.

- *In some cases, imminent danger such as fire makes it impossible to stay on the energized equipment. When that happens, anyone on the equipment will have to get off.*

Click for first sub-bullet.

- *The proper procedure is to jump completely clear of the equipment before any part of your body touches the ground. 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.

- *Once both feet are on the ground, keep them together and on the ground at all times. Shuffle away from the equipment. 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 6

Begin when title appears.

- *Underground power and natural gas lines can pose an unseen but very real danger.*

Click for first bullet.

- *If your work involves any digging or excavating, call Underground Service Alert, or USA, at least two working days before you begin so utility lines can be marked. Be sure to leave adequate time in your job schedule.*

Click for second bullet.

- *Remember to white line your excavation route before you call so locators can easily identify and mark affected utilities.*

Click for third bullet.

- *Not calling can result in substantial losses of property and/or life as well as potential fines and liability. Anyone who has seen an electrocution or natural gas explosion knows how deadly and destructive utility-line contacts can be. Don't risk it. Call before you dig.*

Click for the next slide.

Slide 7

Begin when the title appears.

- *Once you make the call, USA will arrange for each utility to send someone out to mark underground lines.*

Click for first bullet.

- *But remember that calling for a locate is just the first step. This system only works if you respect the indicator marks, and follow them whenever you dig in the vicinity of underground utilities.*

Click for second bullet.

- *Use hand tools ONLY to dig within 24 inches of each side of the marks. (Local law may require wider clearances.) Too many accidental utility contacts have occurred when someone dug with a backhoe instead of a shovel.*

Click for third bullet.

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

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

- *Electric power lines: red*
- *Gas, oil, and steam pipelines: yellow*
- *Communications lines: orange*
- *Drinking water: blue*
- *Irrigation and slurry lines: purple*
- *Wastewater lines: green*
- *Survey markings: pink*
- *Your proposed areas of excavation: white*

Click for the next slide.

Slide 8

Begin when the title appears.

- *It is important to learn the warning signs of natural gas pipeline leak.*

Click for first bullet.

- *Whenever you are digging or excavating, you should be alert for any of the following telltale signs.*

Click for each item and read off as they appear.

- *These include the familiar rotten-egg smell*
- *A hissing sound*
- *Spraying dirt*
- *Continual bubbling in a pond or creek*
- *And plants that are dead or dying for no apparent reason*

Click for the next slide.

Slide 9

Begin when the title appears.

- *It's important to know the proper dos AND don'ts for dealing with a natural gas leak.*

Click for first bullet.

- *Anytime you suspect a leak or if your equipment contacts a natural gas pipeline, even if a leak is not obvious, assume there's a danger. The single greatest risk from natural gas leaks is explosion. Even the smallest spark can ignite the gas, and sparks can come from some unexpected sources.*

Click for first sub-bullet.

- *Engines and generators present the greatest spark hazard when they are being turned on or off. Leave these devices as they are. Leave your equipment behind, and avoid changing the power status in the vicinity of the gas leak. Evacuate the area, and keep others from approaching the site. Do not approach the area until utility personnel give the all clear.*

Click for second sub-bullet.

- *Leave the excavation open. Never attempt to operate pipeline valves or bury a contacted pipeline.*

Click for third sub-bullet. Photos will appear automatically.

- *Do not use matches, cell phones, radios, lighters, or other possible ignition sources around a gas leak.*

Click for fourth sub-bullet.

- *Call 911 and PG&E as soon as the area is clear.*

Click for the review slide.

Slide 10

Begin when the title appears.

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

Click for first bullet.

- *When you arrive at a job site, identify all overhead electric lines and alert your co-workers. Remember that circumstances can change daily so repeat this check each day before work begins.*

Click for second bullet.

- *Always observe the 10-foot rule and assume that all lines are energized.*

Click for third bullet.

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

Click for fourth bullet.

- *If a power line contact does occur, follow the safety procedures covered in this presentation, and immediately call PG&E.*

Click for fifth bullet.

- *Call for an underground utility locate at least two full working days in advance of any digging or other earth-moving operations.*

Click for sixth bullet.

- *Learn to recognize and be alert for the warning signs of a natural gas leak.*

Click for last bullet.

- *Even if a gas leak is not obvious, if you suspect one or if your equipment contacts a pipeline, follow the safety procedures presented here and call 911 and PG&E.*

Click for the next slide.

Slide 11

Begin when the slide appears.

- *If you'd like more information about working safely near electric power lines or natural gas pipelines, you can visit the PG&E website or call PG&E.*

Click for the final slide.

Slide 12

- *Thank you for your attention.*

Take questions and begin discussion. If you are using the trainer's guide, in it you will find more detail about how electricity works, when to contact PG&E, what sort of materials and objects conduct electricity, correct jump-off procedures, and other information.

Discuss how this information conflicts with what your audience believed about utilities and 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.

Consider some of the suggested simulations or use your own.