



**worker  
beware<sup>®</sup>**

# Working Safely Around Power Lines

# Respect the Power of Electricity

- **When you arrive at a job site, always identify power lines and high-voltage equipment, and point them out to your coworkers.**
- **Assume *all* overhead power lines are energized, including service drops running between poles and buildings.**
- **Check the site daily, because conditions may change.**
- **Review your emergency plan before work begins, so everyone knows what to do in case of power line contact.**



# For Tools & Equipment Other than Cranes & Derricks Used in Construction:

## Always Observe the 20-Foot Rule

- Keep yourself and your equipment (other than cranes or derricks used in construction) **AT LEAST 20 feet away** from overhead power lines carrying up to 50 kV.
- Higher-voltage lines require greater clearances. **Utility Name** to verify line voltage if needed, and consult the OSHA regulations at [www.osha.gov](http://www.osha.gov) for clearance requirements and encroachment prevention precautions.
- If your job requires you to work closer than **20 feet** from power lines, call **Utility Name** well in advance to make safety arrangements.
- Electric safety distances given here are minimums.
- Always use the maximum possible distance, and clearly mark boundaries to keep workers and equipment the required distance away.

# Cranes & Derricks in Construction

- Keep the crane boom and load **at least 20 feet away** from lines up to 350 kV and **50 feet away** from lines greater than 350 kV but at or less than 1,000 kV. Always assume the line is energized, and allow nothing closer unless you have confirmed with the utility owner/operator that the line has been de-energized.
- **Contact Utility Name to verify line voltage if needed**, and consult the OSHA regulations at [www.osha.gov](http://www.osha.gov) for specific clearance requirements and encroachment prevention precautions.
  - Once you have established the required clearance, clearly mark a boundary with tape, signs, or barricades.
- **Whenever cranes or derricks are used in construction on your jobsite**, contact **Utility Name** well in advance so any necessary facility protection arrangements can be made.

# Use a Dedicated Spotter



- **Always use a dedicated spotter on the ground** to safely judge distances between hoisting equipment and power lines.
- **Crane and derrick operators** must maintain continuous contact with a dedicated spotter to comply with electric line clearance requirements.
- **The spotter's only responsibility should be power line safety.** Don't divide the spotter's attention with other tasks.

# Notify 811 Before You Dig

- Notify the **Pennsylvania One Call System** by dialing 811 or using the **Web Ticket Entry tool** at [www.pa1call.org](http://www.pa1call.org) at least **three business days before you dig or move earth in any way**. This free service will arrange for facility owners to mark power lines and other buried utilities so you can work safely.
- **Before you call, WHITE LINE your excavation route**, so locators can easily identify and mark affected utilities.
- **Be sure to check the KARL responses for your One Call ticket before beginning** work to ensure all facility owners have responded. If you see evidence of underground facilities in your dig area but no markings, do NOT dig. Call 811 and notify the ticket.
- **If you don't notify 811 before digging, you risk hitting an underground line.** You, your coworkers, and others could be hurt or killed, and you may be held liable for any resulting damages and repair costs. Don't risk it. Call before you dig.











**Know what's below.  
811 before you dig.**

# Dig Safely

- **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.
- **Respect the locator marks.** Maintain utility locator marks and follow them when digging.
- **Dig with care.** The law requires you to use prudent digging techniques within the “tolerance zone,” which spans the width of a marked utility line, plus 18 inches beyond each indicated outside edge of the utility line. Use only hand tools, vacuum excavation or similar devices within this zone.
- **Know the underground utility color code:**

## American Public Works Association and Common Ground Alliance Color Code for Locator Marks



	Electric power lines
	Gas, oil, or steam pipelines
	Communications lines, cables, or conduit
	Potable water
	Reclaimed water, irrigation, and slurry lines
	Sewers and drain lines
	Temporary survey markings
	Your proposed excavation

# If Heavy Equipment Contacts a Power Line

- Both the equipment and the line should be considered energized.
- If you can do so safely, move the equipment away from the line.
- Stay on the equipment.
- Warn others to stay away.
- Call 911 and and Utility Name at 800-000-0000 immediately to report the emergency.
- If fire or other danger forces you off:
  - Jump clear, keeping both feet together, and **without touching the equipment and the ground at the same time.**
  - Then shuffle away with small movements, keeping both feet close together and on the ground at all times.
  - Do not return to the equipment.





# Electrical Safety Review

- **Identify all power lines** and electrical equipment upon arrival at a job site. Recheck the site daily.
- **Keep yourself and all tools and equipment** **AT LEAST 20 feet away** from *all* overhead power lines carrying up to 50 kV. Contact **Utility Name** for line voltage verification.
- **Cranes and derricks in construction:** Contact **Utility Name** to verify line voltage if needed, and consult the OSHA regulations at [www.osha.gov](http://www.osha.gov) for clearance requirements and encroachment prevention precautions.
- **Build in extra safety distances.**
- **Always use a dedicated spotter.**
- **Notify the Pennsylvania One Call System at 811** or via [www.pa1call.org](http://www.pa1call.org) at least three business days before you dig.
- **If a power line contact occurs**, follow proper safety procedures and immediately **call 911** and **Utility Name** at **800-000-0000** to report the emergency.

# Underground Utility Locator Contact Information

- To reach the **Pennsylvania One Call System**, dial **811** or use the Web Ticket Entry tool at [www.pa1call.org](http://www.pa1call.org)



Know what's **below.**  
**811** before you dig.

# Contact Information

- In case of emergency, call 911 and **Utility Name** at **800-000-0000**.
- For additional information, visit our website at **[www.e-smartworkers.com](http://www.e-smartworkers.com)**



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