

Worker Beware[®]

Work Safely Around Electric and Gas Lines



Respect the Power of Electricity

- **When you arrive at a job site, always check for overhead power lines, poles and support wires, and point them out to your coworkers.**
- **Assume *all* overhead power lines are energized and potentially dangerous,** including service drops running between poles and buildings.
- **Check the site daily,** because conditions may change.



Beware of Overhead Power Lines

- **Always check for overhead power lines when parking vehicles with extensions, using a forklift or raising a dump truck bed.**
Determine the maximum safe lift height before you start the job.
- **Check for overhead lines before throwing tie-downs when securing a load.**
- **Carry ladders, pipes and long tools parallel to the ground to avoid hitting power lines.**





For Tools & Equipment Other Than Cranes & Derricks Used in Construction: Always Observe the 10-Foot Rule

- OSHA requires that you **keep yourself and your equipment *AT LEAST 10 feet away* from overhead power lines of 50 kV or less.**
- **Higher voltages require a larger safety zone.** If you have questions about power line voltages, contact PG&E at 1-800-743-5000.
- **If your job requires you to work closer than 10 feet from power lines,** contact PG&E well in advance to make safety arrangements.
- Electrical 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 Used in Construction

- **Keep the crane boom and load *AT LEAST 20 feet away*** from lines up to and including 350 kV and ***50 feet away*** from lines greater than 350 kV but at or less than 1,000 kV until the operator has taken specific safety measures. Consult Cal/OSHA for all requirements.
- **Always assume the line is energized** and allow nothing closer than the Cal/OSHA minimum distances unless you have confirmed with PG&E that the line has been de-energized.
 - 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 job site,** contact PG&E well in advance at 1-800-743-5000 so any necessary safety arrangements can be made.

Use a Dedicated Spotter

- **Always use a dedicated spotter on the ground** to safely judge distances between heavy equipment and power lines.
- **The spotter's only responsibility should be power line safety.** Don't divide the spotter's attention with other tasks.



If Heavy Equipment Contacts a Power Line

- **Stay on the equipment** until PG&E says it is safe to get off.
- **Warn others to stay away.** Anyone on the ground who touches the equipment may be seriously injured.
- **Call 911 immediately and then call PG&E at 1-800-743-5000.**
- **If you must exit the vehicle because of imminent risk from fire or other serious safety hazard:**
 - Remove loose items of clothing, jewelry, seat belts and anything else that could obstruct you.
 - Jump entirely clear of the vehicle and the line, as far away as possible.
 - As you jump, keep both feet together and land without touching the ground and equipment at the same time.
 - After you land, do not touch the vehicle or line.
 - Shuffle away with small steps, or hop away on two feet, keeping both feet close together at all times.



Call Before You Dig

- **Notify 811 at least two working days (not including the date of your request, weekends and legal holidays) before you dig.** The free service will notify operators to locate utilities so you can work safely.
 - Call **811** or request an online ticket at **california811.org**. Allow utilities two full working days to mark lines. Before you dig, confirm that all utilities have responded by checking Electronic Positive Response at 811.
- **Before you call, delineate your excavation area** with white paint, flags or stakes so locators can easily identify and mark affected utilities.
- **If you don't notify 811 and you hit an underground line,** you or your coworkers could be hurt or killed. You may also be held liable for damages.











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

Always contact your state 811 center before digging and for the most current requirements.

- **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 indicator marks and follow them when digging.
- **Dig with care.** The law requires you to hand excavate within 24 inches of each side of marked utilities.
- **Know the underground utility color code:**

AMERICAN PUBLIC WORKS ASSOCIATION 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

Always contact your state 811 center before digging and for the most current requirements.

Look for Pipeline Markers

- **Always be aware of pipeline markers** that indicate the need for extra care around a high-volume natural gas transmission line.
- **These markers specify the line's approximate location**, but not all pipelines follow a straight path between markers.
 - **Never use these markers as a substitute for notifying 811** before you dig or move earth in any way.
- **If your proposed excavation is within 10 feet of a natural gas transmission line 60 PSI or greater**, you will be notified that a meeting with PG&E at the job site is required.



Recognizing a Natural Gas Pipeline Leak

- **PG&E adds a highly recognizable sulfur-like odor to natural gas to assist in leak detection. But don't rely on your nose alone. Be alert for any of these gas leak warning signs:**
 - A sulfur-like or rotten-egg odor
 - Hissing, whistling or roaring sounds
 - Dirt spraying into the air
 - Dead or dying vegetation in a landscaped area over or near a pipeline
 - Continuous bubbling in water
 - Exposed pipeline after an earthquake, fire, flood or other disaster
 - Damaged connections to gas appliances



Responding to a Natural Gas Pipeline Leak

- **If you suspect a gas leak or if you contact a gas pipeline:**
 - **Leave equipment;** don't turn off engines or generators.
 - **Warn others and leave the area quickly.**
 - **Do not operate pipeline valves** or stop the flow of gas.
 - **Leave the excavation open.**
 - **Immediately call 911 and PG&E at 1-800-743-5000.** Call even if damage is a minor nick or scrape.
 - **Notify the Underground Safety Board at california811.org** within two hours.
 - **Do not light a match, start an engine or operate any electrical device—even a phone.**
 - **Stay away from the area** until utility workers say it is safe to return.





Utility 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 10 feet away** from all overhead power lines of 50 kV or less.
- Cranes and derricks used in construction require clearances of 20 feet or greater until the operator has taken specific safety measures.
- Always use a dedicated spotter.
- If a power line contact occurs, follow proper safety procedures and immediately call **911** and PG&E.
- Contact 811 before you dig.
- Know the warning signs of a natural gas leak.
- If you contact a natural gas pipeline, leave the area, avoid spark hazards and call **911** and PG&E.

Underground Service Alert Contact Information

- Notify **811** at least two working days (not including the date of notification) ahead of digging. Call **811** or use the online ticket entry system at california811.org.

Always contact your state 811 center before digging and for the most current requirements.



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



Report All Utility Contacts

- If you contact a gas pipeline or electric power line, call **911** and PG&E at **1-800-743-5000** immediately.
 - Report all utility contacts, even if damage appears minor.
- If you contact a gas pipeline or suspect a gas leak, also notify the Underground Safety Board at **california811.org** within two hours.
- For additional information, visit our website at **pgesafetyeducation.com/contractor**.

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Thank you for helping to keep you and your coworkers safe.

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