

**worker
beware[®]**

Working Safely Around Electric and Natural Gas Lines



CPS Energy Is Committed to Your Safety

CPS Energy delivers natural gas and electricity to customers throughout greater San Antonio. Here are some of their many initiatives to protect public safety:

- **They conduct regular natural gas pipeline testing, inspection, and repairs**, and monitor their pipelines 24/7 for potential leaks.
- **They educate excavators and the public** about safe digging practices to prevent utility line damage, such as contacting **811** for locates.
- **They bring added safety features to natural gas pipelines** in urban, suburban, and other high-population areas.
- **They trim vegetation within their power line and pipeline rights-of-way** to prevent fires and outages, and to provide visibility for gas leak detection.

Despite CPS Energy's best efforts, electrical contacts may occur that could lead to serious injuries, and natural gas leaks may occur that could lead to fires or explosions.

CPS Energy asks for your help to prevent electrical shock incidents and reduce the risk of dangerous gas leaks.

Respect the Power of Electricity

- **Survey your job site every day** to find overhead power lines, poles, and guy wires, and point them out to 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

- You must keep yourself and your equipment (other than cranes or derricks used in construction) **AT LEAST 20 feet away** from ALL overhead power lines.
- Higher-voltage lines require greater distances. Contact CPS Energy at 210-353-3939 for clearance information.
- If your job requires you to work closer than the required distance from power lines, call CPS Energy well in advance to make safety arrangements.
- Electrical safety distances given here are minimums.
- Always use the maximum possible distance.
- Clearly mark boundaries with tape, signs, or barricades 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.
 - If voltage is unknown, contact CPS Energy before work begins.
- **As voltage increases, clearance distances also increase.** Contact CPS Energy and consult the OSHA regulations at 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 job site,** contact CPS Energy 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.

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.
- Remain on the equipment until utility workers signal you off.
- Warn others to stay away.
- Have someone **call 911** and CPS Energy immediately.
- If fire or other danger forces you off:
 - **DO NOT TOUCH** the equipment and the ground at the same time. Jump clear, land with your feet together, and shuffle away with small steps, keeping both feet close together and on the ground at all times.
 - Do not return to the equipment.



Call Before You Dig

- **Call 811** or use the online ticket system at texas811.org at least two full business days before you dig or move earth in any way. This free service will arrange to have underground utility lines marked so you can dig a safe distance away. Even small jobs require a call.
- **Before you call, pre-mark your proposed dig area with white paint, flags, or stakes** so locators can easily identify and mark affected utilities.
- **If you don't call and you hit an underground line**, you or your coworkers could be hurt or killed. You may be held liable for damages plus Railroad Commission fines.











**Know what's below.
Call 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.
- **Hand dig within the tolerance zone.** This safety area is 18" plus half the facility diameter outside each edge of the facility. If you must dig in this zone, hand dig only using non-mechanized tools or equipment, soft digging, or vacuum excavation.
- **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

Beware of Pipelines

High-visibility markers with the CPS Energy 24-hour emergency phone number indicate the need for extra care around all high-pressure gas transmission pipelines and some distribution lines.

- **These markers are usually found at roadways, railroad crossings, and other points along the pipeline route.**
- **These markers indicate the general location of natural gas transmission pipelines and some distribution lines. For security purposes, they do not show exact pipeline locations, path, or depth.** Nor do they show the number of pipelines in the area.
- **Never use pipeline markers or maps as a substitute for calling 811** to have all utility lines in your dig area located and marked.
- **You can also find high-pressure transmission pipelines through the National Pipeline Mapping System (NPMS) at <https://www.npms.phmsa.dot.gov>.**



Recognizing a Natural Gas Pipeline Leak

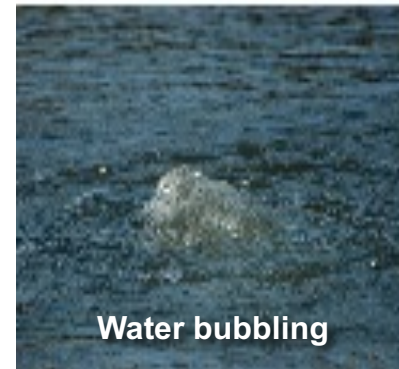
- If digging, grading, or excavation of any kind is happening on your job site, **be alert for the signs of a gas pipeline leak:**
 - **A distinctive, sulfur-like or rotten-egg odor**
 - **A hissing, whistling, or roaring sound**
 - **Dirt spraying or blowing into the air**
 - **Continuous bubbling in water**
 - **An exposed pipeline** after an earthquake, fire, flood, or other disaster
 - **A damaged connection** to a gas appliance
 - **Dead or dying vegetation** (in an otherwise moist area) over or near a pipeline



Dirt being blown into the air



Dead or dying vegetation



Water bubbling



Exposed pipeline

Responding to a Natural Gas Pipeline Leak

- **If you suspect a gas leak or if you contact a gas pipeline:**
 - **DO NOT attempt to make repairs** to a natural gas pipeline.
 - **Warn others and leave the area immediately.**
 - **DO NOT use matches, cell phones, radios, or lighters,** as even a tiny spark could ignite the gas.
 - **Leave the excavation open.** Do not operate any gas pipeline valves or bury the line.
 - If the body of the pipe or its coating is damaged but gas is not released, call 210-353-HELP (4357) immediately, then **contact 811** for a dig-up ticket within one hour.
 - If gas is released, in addition to the above you must **call 911** immediately and submit a report to the Texas Railroad Commission within 30 days.
- **Stay far away from the area** until utility workers say it is safe to return.
- **Review your emergency plan** before work begins, so everyone knows what to do in case of a natural gas pipeline contact.



Utility Safety Review

- Identify all power lines, natural gas lines and electrical equipment upon arrival at a job site. Recheck the site daily.
- Keep yourself and all tools and equipment other than cranes or derricks used in construction **AT LEAST 20 feet away** from *all* overhead power.
- Cranes and derricks used in construction may require clearances greater than 20 feet and encroachment prevention precautions.
- Always use a dedicated spotter.
- If a power line contact occurs, follow proper safety procedures and immediately **call 911** and CPS Energy.
- Notify the underground utility locator service by **dialing 811** or visiting Texas811.org at least two full business days (excluding weekends, federal holidays, and Texas state holidays) 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 CPS Energy immediately, then **contact 811**. If gas is released, in addition to the above **call 911** immediately and submit a report to the Texas Railroad Commission within 30 days.

Underground Utility Locator Contact Information

- To reach the underground utility locator service, dial **811** or visit **Texas811.org**.



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

Contact Information

- In case of emergency, call 911 and CPS Energy at **210-353-HELP (4357)**.
- For additional information, visit:
 - www.cpsenergy.com/safety
 - www.rrc.state.tx.us
 - www.phmsa.dot.gov

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Thank you.

