



worker
beaware[®]

Working Safely Around Electric 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.
- **Look for overhead lines** hidden by trees or buildings.
- **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.
- **Check for overhead power lines** before raising equipment, moving any load, or repositioning ladders or materials.
- **Review your emergency plan** before work begins so everyone knows what to do in case of power line contact.



For Tools and Equipment Other than Cranes and Derricks Used in Construction, Observe the 10-Foot Rule

- **OSHA requires that you keep yourself and your equipment (other than cranes or derricks used in construction) *AT LEAST* 10 feet away from overhead power lines carrying up to 50 kV.**
- **Higher-voltage lines require greater clearances. Contact Dominion Energy for clearance information.**
- **If your job requires you to work closer than 10 feet from power lines, call Dominion Energy well in advance to make safety arrangements.**
- **Electrical safety distances given here are minimums.**
- **Always use the maximum possible clearance, and clearly mark boundaries to keep workers and equipment the required distance away.**

Cranes and Derricks in Construction

- **Cranes and derricks used in construction must remain a minimum of 20 feet away** from lines up to 350 kV and **50 feet away** from lines greater than 350 kV, if operated up to the equipment's maximum reaching radius. In addition to these minimum safe working distances, the operator must implement specific encroachment prevention precautions. For more information, consult [osha.gov](https://www.osha.gov).
- **As voltage increases, clearance distances also increase.** Consult the OSHA regulations at [osha.gov](https://www.osha.gov) for specific clearance requirements and encroachment prevention precautions. NOTE: Virginia, South Carolina and North Carolina have State Occupational Safety and Health Plans. For further information, visit the State OSHA Program website at [osha.gov/stateplans](https://www.osha.gov/stateplans), and click on your state. In Texas, follow federal regulations.
 - Once you have established the required clearance, clearly mark a boundary with tape, signs or barricades.
- **If any part of the equipment can get closer than 20 feet (for lines up to 350 kV) or 50 feet (for lines greater than 350 kV), or you must work closer than regulations allow,** contact Dominion Energy well in advance so any necessary facility protection arrangements can be made, and implement encroachment prevention precautions.

Encroachment Prevention Precautions

- **Conduct a planning meeting with the operator and other workers.**
- **Tag lines must be non-conductive (if used).**
- **Erect and maintain an elevated warning line, barricade or line of signs in view of the operator, at 10 feet from the power line.**
- **If the operator is unable to see the warning line, always use a dedicated, qualified spotter on the ground.**
- **In addition to the above precautions, the operator must implement one of the following:**
 - Use a proximity alarm, designed to give the operator sufficient warning to prevent encroachment.
 - Use a dedicated spotter who is in continuous contact with the operator.
 - Use a device that automatically warns the operator to stop (range control warning device).
 - Use a device that limits the range of movement, set to prevent encroachment.
 - Use an insulating link between the end of the load line and the load.

Use a Dedicated Spotter



- **Always use a dedicated, qualified spotter on the ground** to safely judge distances between hoisting equipment and power lines.
- **Crane and derrick operators:** You 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 Your Equipment Contacts a Power Line

- **Consider the equipment and the line energized.**
- **Move the equipment away from the line, if you can do so safely.**
- **Tell others to stay far away.**
- **Remain on the equipment.**
- **Have someone call 911 and Dominion Energy immediately.**
- **If fire or other imminent danger forces you off:**
 - Do NOT touch the equipment and the ground at the same time.
 - Jump clear and land with your feet together.
 - Shuffle at least 30 feet away, keeping your feet together and on the ground at all times. Do not allow any distance between your feet.
- **Never touch fallen power lines or anything they may be contacting.**
- **Do not return to the equipment until utility personnel tell you it is safe.**



Call 8-1-1 Before You Dig



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

- **Call 811 well in advance of digging** so lines can be marked and you can dig a safe distance away. Call 811, or use the online ticket-entry system:
 - **NC: nc811.org**
 - **VA: va811.com**
 - **SC: sc811.com**
 - **TX: texas811.org**
- **Before you call, pre-mark your proposed excavation area** with white paint, flags or stakes so locators can easily identify and mark affected utilities.
- **If you don't call 811, you risk hitting an underground line.** You or your coworkers could be hurt or killed. You may be held liable for any damages, as well as repairs and outage costs.

Wait the Required Time

- **Wait for utilities to mark their lines.** Do not dig until all utility owners have marked their lines or advised you that the area is clear to dig. Wait time for each state is as follows:
 - **NC, SC:** Wait **three full business days**, excluding the date you call 811, weekends and legal holidays
 - **VA:** Wait **48 hours** beginning at 7 a.m. the next business day
 - **TX:** Wait **48 hours**, excluding weekends and legal holidays
- **If you wait the required time and the locate is not completed, do not dig.** Notify the 811 service that your locate request has not been fulfilled.



Conduct a Visual Site Survey











- **Do not rely exclusively on the locate marks.** Look for visual indicators of underground facilities that have not been marked.
- **Check with property owners about any private underground lines** that would not have been marked by the locator.
- **Also check for signs of something buried after the locate was completed,** such as a fresh trench.

Respect the Marks and Dig with Care

- **Not all utilities are 811 members.** You are responsible for notifying non-member utilities about your project. Check with 811 for more information.
- **Respect the locator marks.** Maintain utility indicator marks, and follow them when digging.
- **Dig with care.** Hand dig to expose marked utility lines and verify their location. Exercise extreme caution when digging near buried utilities, and have a spotter present to observe the excavation whenever heavy equipment is used.
- **Know the underground utility color code:**

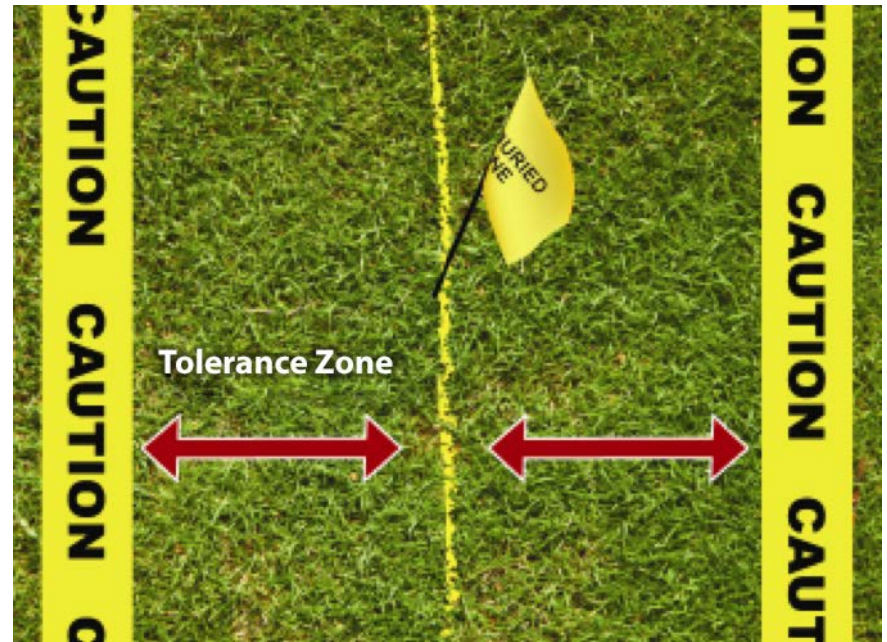
AMERICAN PUBLIC WORKS ASSOCIATION COLOR CODE FOR LOCATOR MARKS



	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
	Proposed excavation

Respect the Tolerance Zone

- Follow state laws for digging within the “tolerance zone,” a safety area that spans the width of a marked utility plus a specified distance from each indicated outside edge.
- The tolerance zone is a *minimum* safety clearance. Protect yourself by using the *maximum* possible distance.



Know When to Stop Digging



- **If there are no locate marks after you have waited the required time**, do NOT dig. Call 811, and wait until utility lines are marked or you have been notified that the area is clear of lines.
- **If you do not understand the locate marks**, do NOT dig. Ask your supervisor what you must do to work safely.
- **If you cannot visually verify the location of marked power lines by hand digging**, STOP digging and contact Dominion Energy immediately.
- **If you find unmarked, mismarked or seemingly abandoned facilities**, STOP digging. Assume all utility lines are in service, and report them to 811.
- **If you see signs of something buried after the locate was complete**, such as a fresh trench, STOP digging. Call 811.
- **If the marks fade or are destroyed**, STOP digging and call 811 to request a new ticket. Do not resume digging until the area is re-marked.

Utility Safety Review

- Identify all power lines and electrical equipment upon arrival at a job site. Recheck the site daily, and review your emergency plan.
- Keep yourself and all tools and equipment (other than cranes and derricks used in construction) **AT LEAST 10 feet away** from *all* overhead power lines carrying up to 50 kV. Always assume that lines are energized.
- Cranes and derricks used in construction must remain a minimum of **20 feet away** from lines up to 350 kV and **50 feet away** from lines greater than 350 kV, if operated up to the equipment's maximum reaching radius. In addition to these minimum safe working distances, the operator must implement specific encroachment prevention precautions. For more information, consult osha.gov.
- Always use a dedicated spotter.
- If a power line contact occurs, follow proper safety procedures, and immediately call **911** and Dominion Energy.
- Notify the underground utility locator service by calling 811 or using the online ticket-entry system before you dig.

811 Information

- **To reach your state's underground utility locator service, call 811 or use the online ticket-entry system:**
 - **NC:** nc811.org
 - **VA:** va811.com
 - **SC:** sc811.com
 - **TX:** texas811.org

- **Wait time for each state is as follows:**
 - **NC, SC:** Wait **three full business days**, excluding the date you call 811, weekends and legal holidays
 - **VA:** Wait **48 hours** beginning at 7 a.m. the next business day
 - **TX:** Wait **48 hours**, excluding weekends and legal holidays

Contact Information

- **In case of an electrical emergency, call 911 and Dominion Energy:**
 - **North Carolina and Virginia: 1-866-DOM-HELP (366-4357)**
 - **South Carolina: 888-333-4465**
 - **Texas: 911**

- **For additional information, visit Dominion Energy's website at domsafety.com/contractors**



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