

Avoid the
DANGERZONE
Stay Clear...Stay Alive



Electrical Safety for Contractors and Homeowners

nationalgrid

This pamphlet contains a general overview of the responsibilities of contractors engaged in excavation including digging, drilling, blasting and demolition. Complete rules and procedures may be obtained from your state's One-Call Notification System.

General Procedures for Working Near Underground Electric or Gas Systems

First – Call Before You Dig

Working around underground pipes and cables can slow your job down. Hitting an underground electric line or gas pipe can cause:

- Electric shock – buried cables may carry up to 350,000 volts
- Escaping gas, including fire
- Lost time while repairs are made
- Lost money from job delays and repair costs

One-call notification systems are used to alert member facility owners about work involving excavation or demolition. Excavators must call their local one-call notification system and provide the exact location of the work site and planned work date before digging, drilling, blasting or demolition. The one-call notification system will alert every member facility operator to locate and mark their underground facilities.

Dig Safely New York serves participating utilities in New York State except New York City and Long Island. Call 1-800-962-7962 at least two, but not more than ten, working days before digging. Notification may also be made online at www.digsafelynewyork.com.

Dig Safe System, Inc., serves participating utilities in Massachusetts, Rhode Island, New Hampshire, Vermont and Maine. Call 1-888-DIGSAFE (344-7233) at least three, but not more than 30, working days before digging (In Rhode Island and Vermont, a minimum two-day notice is required). Notification may also be made online at www.digsafe.com.

It's Your Responsibility

Excavators are responsible for knowing the meaning of all markings, including those related to size and depth, color coding, center line or offset staking or marking and all other acceptable methods used to indicate the locations of underground facilities.

After physically locating underground facilities, use these procedures to help keep your job on schedule:

- Select appropriate equipment to maintain applicable clearance from underground facilities, including hand shoveling when required.
- Open cut or tunnel work must be braced, sheeted or shored to eliminate damage to cables and pipes.
- Follow all federal (including OSHA), state and local laws, regulations and ordinances. Where similar but different standards exist, follow the more stringent requirement.
- Access to manholes, handholes, valves, equipment boxes, vaults, etc., must be left open and usable.
- Cables and pipes are wrapped and coated to protect against corrosion. If you unexpectedly expose a cable or pipe, damage its protection or see deterioration, call the facility owner and do not backfill.
- Barricade excavations that expose cables or pipes. Use danger signal devices, such as lights or flashers, according to local codes.
- Earth shocks from pile driving can damage nearby buried utilities. For your protection, check your plans in advance with National Grid.

Gas valves and electrical switches are parts of complicated interconnected systems. They should be operated only by National Grid employees. If a gas valve is closed accidentally, leave it alone and call National Grid to check and correct the condition. If you hit an electrical line, the result can be deadly. Call National Grid for help immediately. Don't try to make repairs yourself; let us do it.

Avoid the **DANGER ZONE**

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Working Near Power Lines

There is a minimum **10-foot danger zone** around overhead power lines.

Transmission or high-voltage lines require an even greater clearance.



Homeowners

Overhead power lines may be coated to protect them from the weather, but that coating will **not protect you** from electric shock. If you contact an overhead line – with your body or indirectly through a ladder or tool – you may be seriously injured or even killed.

- Keep scaffolding and rigging away from electrical equipment and overhead lines. Scaffolding can sway into a power line, energizing the entire structure and endangering anyone who touches it.
- Stay clear of the 10-foot danger zone around wires connected to homes and commercial buildings.

Painters, Masons, Framers, Siding Contractors, Plumbers, Tree Trimmers

- Metal parts and moisture conduct electricity, so never use an aluminum ladder or a damp wooden ladder within 10 feet of power lines. Before erecting a ladder, always look up to be sure it will not contact – or even come near – any power lines. Never extend a tool to within 10 feet of power lines.
- Be especially careful when installing metal siding, gutters, antennas, etc., which can blow into a power line while being raised into place.

Communications Contractors

- Know the location of power lines and electrical equipment when climbing utility poles or working from a bucket truck – and stay out of the danger zone.
- Never attach or tie anything off to power lines or electrical equipment.

At the Job Site

- Keep all vehicles and heavy machinery – cranes, bucket and dump trucks, backhoes, front-end loaders and cement pumpers – out of the danger zone around power lines.
- If a machine's boom or bucket gets into the danger zone, or comes into contact with a power line, anyone touching the machine – or even standing nearby – is at risk.
- Designate at least one employee to observe and ensure that the minimum danger zone clearance around power lines is maintained, especially when raising dump trucks beds, booms and cranes.
- Always have a safety meeting at the site before work begins each day. Be sure all sub-contractors on the job are aware of safety issues and adhere to site safety rules.
- Overhead power lines are **NOT insulated** – if your body, tools, equipment or vehicle comes into contact with a power line, the results can be deadly.

If You're a Contractor

Call the local electric utility before working near **overhead power lines**.

In **New England**, when working within the National Grid service territory call:

Hazard Identification Hotline

1-888-625-3723

In **New York**, within the National Grid service territory, call:

Hazard Identification Hotline

1-800-642-4272