



Working Together to Keep You Safe

A guide for contractors and excavators

Be safe, prevent downtime on the job, and avoid expensive penalties by following a few simple rules.



INTRODUCTION

Your safety is important to us

We work hard to deliver safe, reliable electric and natural gas service to our customers. And we want you to be safe while working around our facilities. This brochure provides information you need to stay safe while working near above- or below-ground facilities.

There are two main rules contractors and excavators should always keep in mind while working near electric and natural gas lines:

1. Call before you dig.



Following these two simple rules will help you avoid potentially dangerous situations and expensive mistakes.

2. Look up and look out.



CALL BEFORE YOU DIG

Call before you dig

To prevent a hazardous situation while digging, contact your local one-call system at least three business days before you plan to dig. Our representatives will mark the underground facilities for free.

Wisconsin Diggers Hotline: 811 or 800-242-8511

Michigan Miss Dig: 811 or 800-482-7171

Wisconsin State Statute, Section 182.0175, delineates many of the precautions to be taken by excavators and contractors. Go to diggershotline.com for a copy of the Wisconsin statute and to see specific legal requirements.

How we mark underground facilities

To ensure proper marking of underground facilities, outline the proposed excavation site(s) with white paint whenever possible. We mark our facilities with paint, flags or stakes. Facilities greater than 2 inches in diameter are labeled as such. When we can't place markers directly over buried facilities, we use offset markings, such as arrows and numbers on a stake or on nearby pavement, to mark the distance and direction to the buried facilities.

Yellow = Natural Gas and Steam

Red = Electric

Blue = Water

Clear = No buried facilities

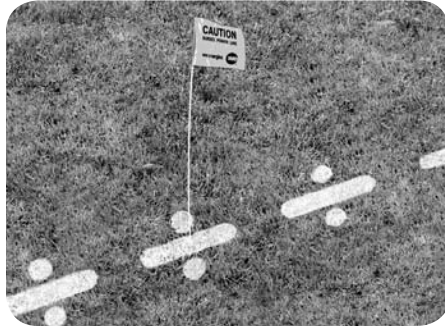


CALL BEFORE YOU DIG

Underground electric facilities

When two or more buried cables or circuits are present, each cable will be marked separately, even if they are close together or placed in the same trench. If flags are used, we will place one for each circuit.

When three-phase circuits are buried in a single trench, the ground mark will consist of a long center stripe with short dashes centered on each side. A single flag will be placed on the center stripe to indicate that this is a single circuit with three conductors. (See illustration right.)



Note: Multiple wire circuits in which the conductors are twisted or bundled together will be identified with a single mark.

Underground natural gas facilities

Excavators will encounter natural gas lines in a wide variety of sizes, colors and materials at various depths.

- Natural gas lines range in size from ½ inch to 30 inches in diameter.
- Pressures in the lines range from 15 pounds per square inch to 1,000 pounds per square inch.
- Materials used include polyethylene, steel and copper.

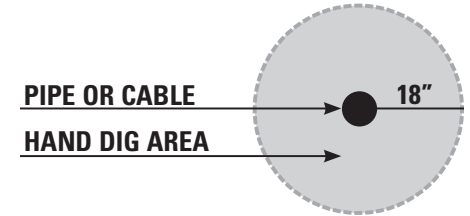


CALL BEFORE YOU DIG

Working around buried facilities

Main lines are generally found at least 24 inches deep, while service lines are generally found at least 18 inches deep. *Keep in mind: existing grades can change and the current depth of an electric or natural gas line may be different than when originally installed.* Use the clearance guidelines below when working around buried facilities.

- **Unexposed facilities:** Hand digging should begin 18 inches from each side of a buried facility.



- **Exposed facilities:** After facilities have been exposed by hand, powered digging equipment may be used up to 12 inches away, but you must exercise caution to avoid facility damage, and to ensure your safety.



- **Trenchless technology** (boring, directional drilling): Always expose facilities to verify their depth and location when using trenchless technology.



CALL BEFORE YOU DIG

Backfilling and support

When backfilling around underground facilities, keep these things in mind:

- Before backfilling begins, inspect all underground facilities exposed during excavation to see if any have been struck, damaged, dislocated or disrupted. Even a minor nick, cut or dent can result in future facility failure. If any of these incidents occurred, immediately notify us prior to backfilling so damage can be inspected and repaired if necessary.
- During backfilling, use well-compacted soil around underground facilities to protect them from immediate or future problems. Do not drop heavy rocks or materials with sharp edges onto the exposed facility. If necessary, provide reliable support with additional materials to prevent damage caused by settling, shearing or twisting.



CALL BEFORE YOU DIG

Damage to underground facilities

Damage to underground facilities can include a gouge, dent, nick, scratch or puncture. If damage is discovered or caused to any exposed utility facilities, you smell the strong odor of rotten eggs associated with natural gas, or you hear an unusual hissing sound and/or see debris, such as leaves or dirt, blowing in a localized area, follow these rules to ensure a safe environment:

- Stop work and contact us immediately. If anyone is injured, there is a public safety hazard or natural gas is leaking, call 911 immediately.
- Turn off all power equipment and remove any ignition sources including open flames, electrical sparks and cigarettes.
- Keep yourself and others a safe distance away from the damaged facility.
- Don't bury the damaged facility.



Keep these phone numbers handy in the event of an emergency:

Injury or fire: 911

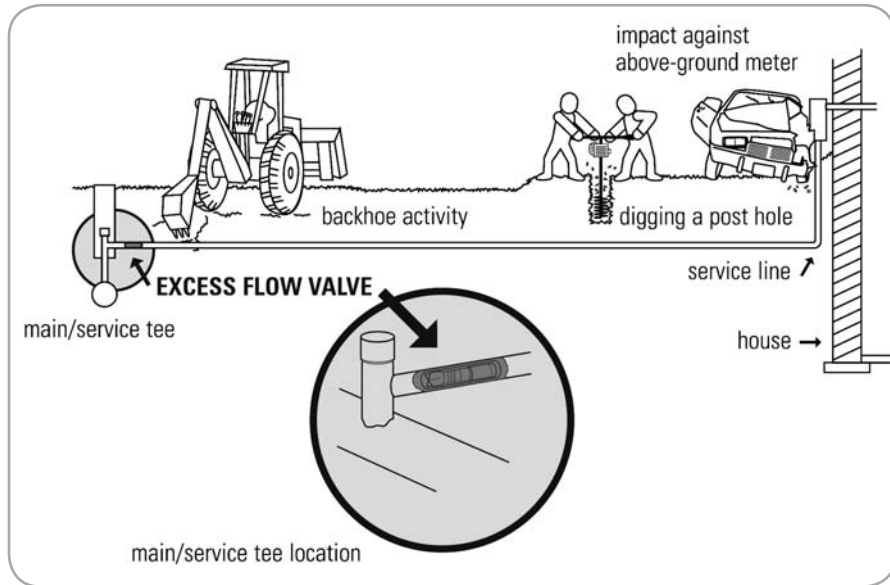
Electric facility damage: 800-662-4PWR (4797)

Natural gas facility damage: 800-261-LEAK (5325)

CALL BEFORE YOU DIG

Excess flow valve

An excess flow valve is a safety device installed on some natural gas service lines that senses when a service line breaks and restricts the flow of natural gas. Even if you do not notice natural gas leaking from a damaged line, it is important that you still call us immediately. We will inspect the line and make necessary repairs to prevent future hazards and damages.



LOOK UP AND OUT

Look up and look out

Whether you operate heavy equipment or use ladders and hand-held tools, when you work outside, you work around power lines. Always look up and look out.

Prior to beginning any work at the job site, survey the site to find overhead power lines, poles and guy wires. Be sure to look for lines that may be hidden by trees or buildings. Always assume all overhead lines are energized and dangerous – including the service drops that run from utility poles to buildings. Site conditions can easily change, so check the site daily.



Mark safety clearance boundaries

Use tape, signs or barricades to help keep yourself and your equipment a safe distance from overhead lines.

Federal law requires at least 10 feet of clearance from high-voltage lines. As voltage increases, clearance requirements also increase. Contact us for specific safety clearance information. And check state and local laws as they may be even more restrictive.

If you must work closer than 10 feet, contact us in advance of performing any work so safety arrangements can be made.

Use a spotter

As the equipment operator, it is often difficult to judge the distance from your equipment to overhead power lines. A designated spotter on the ground has a much better view and can help keep you and your equipment a safe distance from overhead power lines and other hazards.

LOOK UP AND OUT

When equipment contacts a power line

If you are operating equipment that comes in contact with a power line, take these safety steps:

- Have someone call 911 and contact us right away.
- If you can do so safely, move the equipment away from the line.
- Stay on the equipment until rescue workers say it's safe to get off.
- Warn others to stay away. Anyone on the ground who touches the equipment may be injured or killed.

If fire or other danger forces you off the equipment, jump clear without touching the ground and the equipment at the same time. Take small shuffling steps, always keeping both feet on the ground. Or hop away on two feet, keeping your feet together.

Remember: *The absence of arcing or sparking does not mean that the line is de-energized. The line may remain energized or become re-energized at any time.*



CONTACTS

Following these rules can help you stay safe, prevent downtime on the job and avoid expensive penalties. Together we can continue to provide safe, reliable energy service to all our customers.

Important contact information

Make the right call. Know these phone numbers for emergencies, or visit these Web sites for digging or electric and natural gas safety information.

Emergency

Injury or fire: 911

Electric facility damage: 800-662-4PWR (4797)

Natural gas facility damage: 800-261- LEAK (5325)

Digging

Wisconsin Diggers Hotline: 811 or 800-242-8511
diggershotline.com

Michigan Miss Dig: 811 or 800-482-7171
missdig.org

Safety Information

Customer Services: 800-242-9137
we-energies.com

