



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.



*Energy you can depend on*

## General Excavator Guidelines

- Call Diggers Hotline at least three business days before you plan to dig to have buried facilities marked.
- State law requires the cutting edge of power equipment to stay 18 inches away from unexposed facilities.
- State law requires the cutting edge of power equipment to stay 12 inches away from exposed facilities.
- Hand dig when working in close proximity to a known buried facility. This includes periodically verifying a facility location when directional boring.
- When directional boring, you must adequately expose the facility and protect it during the boring operation.
- Support any exposed facility to avoid settlement damage prior to, during, or after backfill.
- Backfill using material which will not damage the facility.
- If damage is caused or found on any exposed facility, notify facility owner as soon as possible.
- If you are unsure, call the facility owner to differentiate between "live" and "abandoned" facilities.



**We Energies is available 24 hours a day, seven days a week.**

**Program these phone numbers into your cell phone so you have them in the event of an emergency:**

**Natural gas leak/emergency: 800-261-5325    Electric emergency: 800-662-4797**

## 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.



#### 2. Look up and look out.



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

## 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 websites for digging or electric and natural gas safety information.

#### Emergency

**Injury, fire or leaking natural gas:** 911

**Electric facility damage:** 800-662-4797

**Natural gas facility damage:** 800-261-5325

#### Digging

**Wisconsin Diggers Hotline:** 811 or 800-242-8511

**diggershotline.com**

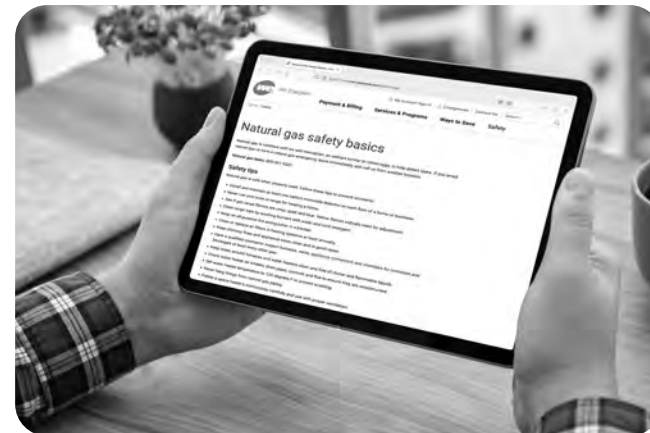
**Michigan Miss Dig:** 811 or 800-482-7171

**missdig.org**

#### Safety Information

**Customer Services:** 800-242-9137

**we-energies.com**



## 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 a line is de-energized. The line may remain energized or become re-energized at any time.



## 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 utility-owned 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](http://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

**Clear =** No buried facilities





## CALL BEFORE YOU DIG

### Underground electric facilities

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

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



**Note:** Multiple wire circuits in which the conductors are twisted or bundled together are 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.



## 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.

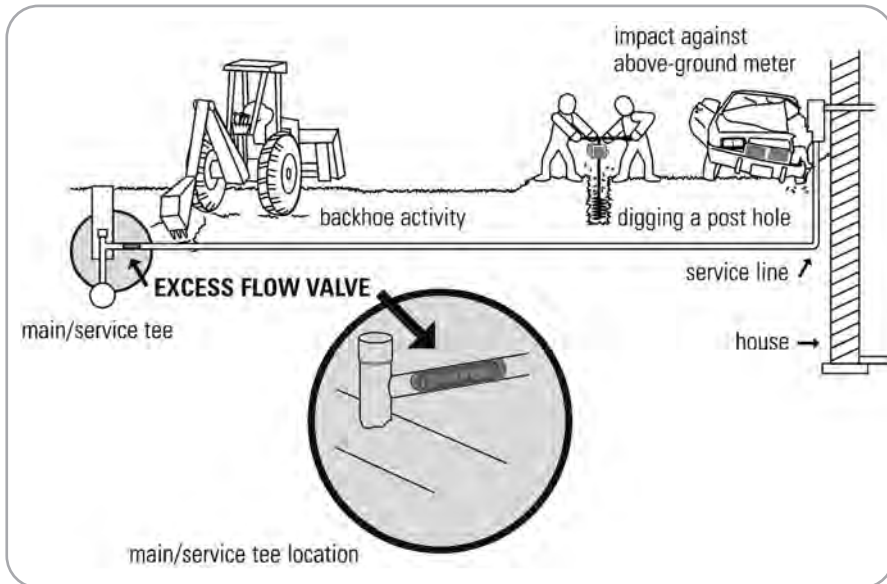
### Use a spotter

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.

## 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.



## CALL BEFORE YOU DIG

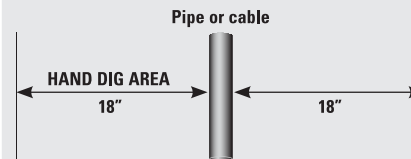
### Working around buried facilities

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.

#### WISCONSIN digging clearance requirements

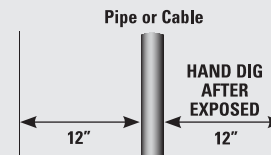
##### Unexposed facilities

Hand digging should begin 18 inches from each side of a buried facility.



##### Exposed facilities

After facilities have been exposed by hand, power digging equipment may be used up to 12 inches away, but please exercise caution to avoid facility damage.



#### Trenchless technology (boring, directional drilling)

Always expose facilities where the bore crosses to verify their depth and location when using trenchless technology.

#### MICHIGAN digging clearance requirements

##### Unexposed facilities

Hand digging should be performed within 48 inches of either side of facility markings.



##### Exposed facilities

After facilities have been exposed by hand and exact facility location is established, power digging equipment may be used to complete excavation. Please exercise caution to avoid facility damage.

#### Trenchless technology (boring, directional drilling)

Always expose facilities where the bore crosses 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 exposed facilities. 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.



Program these phone numbers into your cell phone so you have them when you need them:



**Injury, fire or leaking natural gas: 911**

**Electric facility damage: 800-662-4797**

**Natural gas facility damage: 800-261-5325**

## Natural Gas Emergency Actions

### for excavators and contractors during all natural gas emergencies

- Move people out of the area.
- Remove all ignition sources.
- Don't bury the leak.
- Call 911 and notify We Energies of the situation. Be specific about the nature of the emergency.

## Specific Natural Gas Emergency Procedures



### Outside

*blowing or leaking natural gas*

- Keep people away and stay upwind of the leak.
- Keep ignition sources away - if equipment can be moved safely, do so. Turn off power equipment.
- Call We Energies at **800-261-5325**.
- Don't bury the leak. This may cause the hazard to spread.
- Evacuate nearby buildings.

### Inside

*natural gas leaking inside or entering building*

- Clear the building of occupants.
- Eliminate all ignition sources - do not use light switches or the phone.
- Notify We Energies.
- If practical, ventilate by leaving doors open as you leave.



Natural gas will not burn by itself. However, if mixed with the right amount of air, natural gas can ignite. Natural gas is nontoxic but in an enclosed area, it may displace oxygen in the air, which can lead to suffocation.

If natural gas ignites, the safest way to put out the fire is to **shut off the source**. If the fire is extinguished before the natural gas is shut off, an accumulation of natural gas may occur, which could make the situation even more hazardous.