

CHECK OUT THE **SAFEEXCAVATOR APP** – DETAILS INSIDE

DIGGING

COMES IN MANY FORMS.

They all require safety.




**National
Excavator
Initiative**

Safety always.

www.safeexcavator.com

Know What's Below.

Contact **MISSDIG811** Before You Dig.

eep.missdig811.org

SHARE THIS INFORMATION AT SAFETY MEETINGS & WITH YOUR COMPANY

Excavation

(or digging) is one of the leading causes of damage to pipelines and other underground facilities; however, following basic safety procedures can help prevent this damage.

Every day in America, an underground network of pipelines, cables, and wires carries or transports water, electricity, telecommunication services, sewage, natural gas, petroleum products, and chemicals to manufacturing centers and customers who rely on them. Pipelines are the most reliable way of transporting energy resources.

You play an important role in ensuring your own safety while also helping utilities and pipeline companies protect the safety and integrity of their operations.



Potential Consequences of Hitting Underground Facilities:

- Risk of injury, electrocution, or death
- Fire or explosion
- Environmental damage
- Loss of service
- Fines and penalties

This Brochure Will Help You To:

- ▼ Identify pipelines and other underground facilities
- ▼ Prevent damage to underground facilities
- ▼ Recognize, react, and protect yourself in the event of a pipeline-related emergency
- ▼ Report an emergency or suspicious activity

Understanding that excavators work across multiple states, we encourage you to learn more about digging safely by visiting: www.safeexcavator.com.



Contact Information: National Excavator Initiative

1011 San Jacinto, Suite 411 • Austin, TX 78701 • www.safeexcavator.com

The National Excavator Initiative is a collaborative effort aimed at promoting awareness, increasing communication and providing resources for stakeholders involved in excavation. Members include excavator-related associations, oil and gas companies (large and small), utilities, 811 call centers and others interested in supporting underground facility awareness, damage prevention and safe digging. To learn more visit: www.safeexcavator.com.

How to Identify Underground Facilities

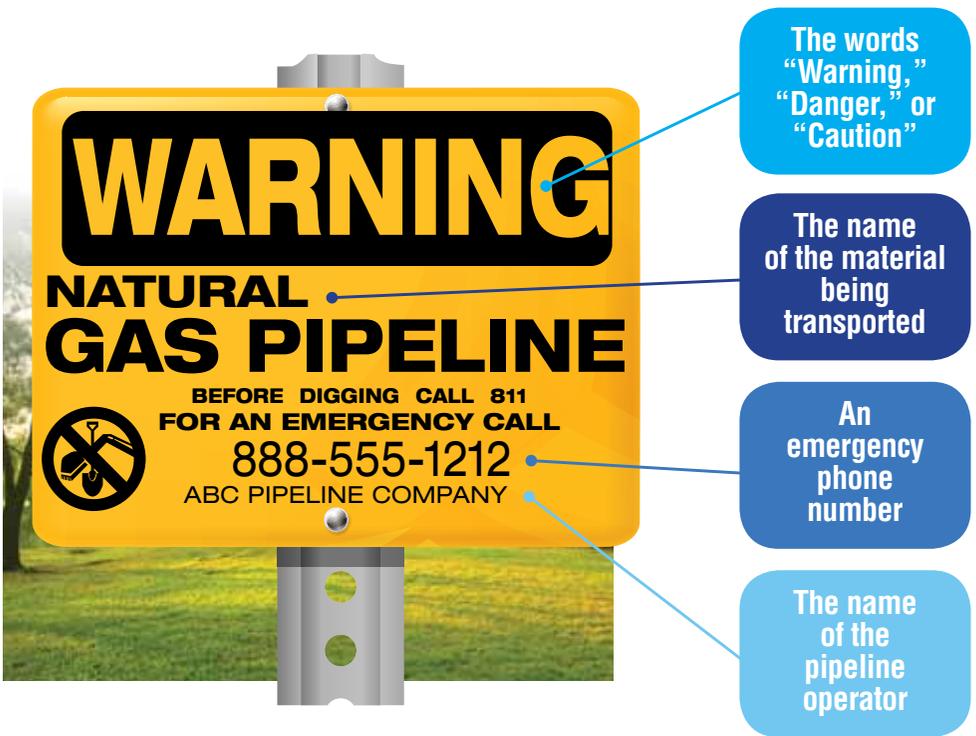
Underground Facility Markers are used to designate the general route of pipelines and other underground facilities. Markers are found where pipelines and utilities cross a street, railroad, or waterway, as well as areas where they emerge from the ground.

Be Aware: Underground facility markers **DO NOT:**

- ▼ Indicate an exact location
- ▼ Designate a straight line between markers
- ▼ Specify facility depth
- ▼ Signal the number of pipelines or utilities in an area

Warning: *Underground utilities owned by the customer or those located in dense population areas may not be marked, and additional steps may be necessary before any digging occurs. For more information, please contact 811.*

Facility Markers Come In Different Shapes And Sizes, But Will Always Include:



The words "Warning," "Danger," or "Caution"

The name of the material being transported

An emergency phone number

The name of the pipeline operator

WARNING

NATURAL GAS PIPELINE

BEFORE DIGGING CALL 811
FOR AN EMERGENCY CALL
888-555-1212
ABC PIPELINE COMPANY



Types of Pipelines:

Gathering lines collect oil and gas from areas of production.

Transmission pipelines transport material to and from storage, refining facilities, manufacturing centers, and places of distribution.

Distribution pipelines deliver natural gas to people's homes or businesses.

For more information on pipelines, visit: www.safeexcavator.com.



Before you move any dirt, dig, excavate, or till, you must contact MISS DIG 811 to have pipelines and utility lines marked in order to keep people, the community, the environment, and yourself safe.

This service is free and required by law.

Advance Notice:

Wait time: Three (3) business days after ticket is submitted

Request for assistance: Three (3) hours during business hours

Re-marking: 24 hours

**Timeframes exclude weekends and holidays observed by MISS DIG 811.*

Pre-Marking Reminder:

If your project cannot be sufficiently described on a one call ticket, the area must be whitelined prior to contacting MISS DIG 811 to clarify the scope of the excavation area.

Ticket Life:

21 Days

Caution Zone:

48 Inches

The **caution or tolerance zone** is an additional safety buffer for an underground facility, which is at least 48 inches on either side of the facility markings. However, underground facility operators may have more stringent requirements.

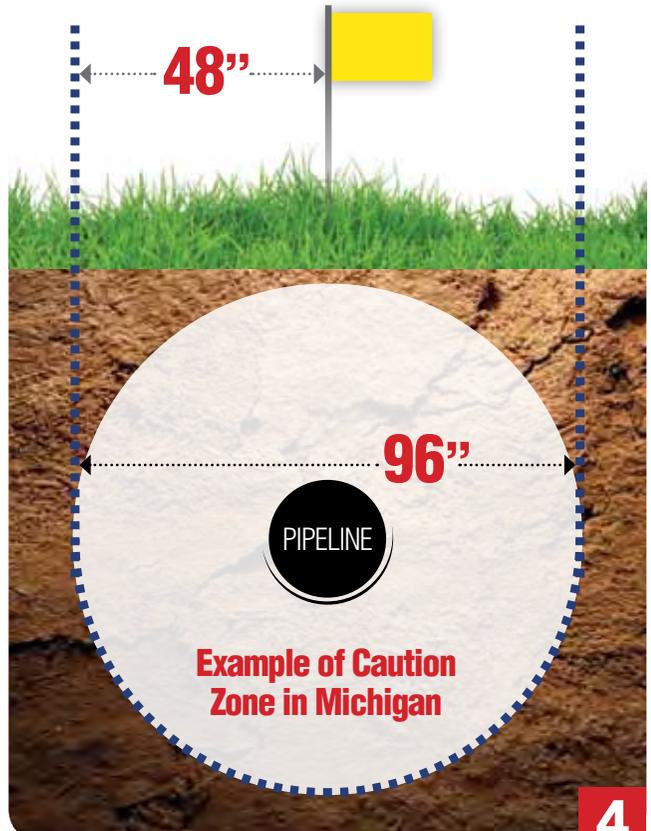
Soft excavation must be used to expose all facilities within the caution or tolerance zone. In the event soft excavation is unpractical, the excavator will consult the underground facility operator to determine how to protect the facility.

Remember: *Every digging project requires contacting MISS DIG 811, even if you have contacted MISS DIG 811 previously for a similar project.*

What Happens When You Contact MISS DIG 811?

- ▼ A ticket is generated and underground facility operators near your planned excavation are notified.
- ▼ Color-coded markings (appearing as paint, flags, or both) will be placed to designate the location of the underground facility.
- ▼ The facility operator must provide a Positive Response to the notification system confirming that marks have been placed at the excavation site or that the area is "all clear."
- ▼ If the facility operator is unable to respond in the required time, the facility operator will contact the excavator to establish a new schedule and timeframe that is mutually agreeable.
- ▼ No digging can occur until all lines have been marked or underground facility operators give an "all clear."

Markers for underground facilities may not be placed exactly over the facility.



Example of Caution Zone in Michigan

You Must Contact MISS DIG 811 Again If:



- ▼ The markings are destroyed or covered.
- ▼ Excavation does not begin within 14 days of the start date on the ticket.
- ▼ There is evidence of a facility with no visible marks.
- ▼ No Positive Response has been received.
- ▼ There is Positive Response from a facility owner or the operator that indicates the presence of a facility with no visible marks.
- ▼ The location of a marked facility within the approximate location cannot be determined.
- ▼ Excavation activity is not complete within 21 days from the start of excavation or blasting unless the ticket indicates that work will not be completed within 21 days.

**Plan Accordingly — the owners of the facilities have at least 72 hours to renew a ticket and 24 hours for a request to re-mark an existing ticket (both of those times not including weekends and holidays).*

Know the Marks... the uniform color code chart is used to mark the location of underground facilities. The markings appear as paint, flags, and stakes.



**PROPOSED
EXCAVATION**



**POTABLE
WATER**



**SEWERS AND
DRAIN LINES**



**TEMPORARY
SURVEY MARKINGS**



**ELECTRIC
POWER LINES,
CABLES, CONDUIT,
AND LIGHTING
CABLES**



**GAS, OIL,
STEAM,
PETROLEUM,
OR GASEOUS
MATERIALS**



**RECLAIMED
WATER,
IRRIGATION,
AND SLURRY
LINES**



**COMMUNICATION,
ALARM OR
SIGNAL LINES,
CABLES, OR
CONDUIT**

Additional Resources:

One Call Notification Center in Michigan:

MISS DIG 811 (MISS DIG System, Inc.): Dial 811 or
1-800-482-7171 • www.missdig811.org

Enforcement Agencies & Resources:

Michigan Public Service Commission:

1-517-284-8100 • www.michigan.gov/mpsc

Pipeline & Hazardous Materials

Safety Administration (PHMSA): www.phmsa.dot.gov

Fines & Penalties:

Penalties may be issued up to a maximum fine of \$5,000 per violation as well as mandatory additional training to ensure future compliance.



The National Pipeline Mapping System (NPMS)

provides information regarding the general location of transmission pipelines (which carry larger quantities of energy resources such as oil and natural gas longer distances), as well as contact information for transmission pipeline operators in your area.

Step 1... Visit: www.npms.phmsa.dot.gov

Step 2... Click on: **“Use Public Map Viewer”**

Step 3... Scroll to the **“State”** box. Select your state; next select your county.

NPMS is for reference purposes only and should not be used as a substitute for compliance with state One Call laws for safe excavation practices. You still need to call MISS DIG 811 before starting any projects that involve digging.

If a Facility is Hit or Damaged:

- ▼ Immediately contact 911 if a hazardous liquid or gas is released from a pipeline.
- ▼ Report any damage to an underground facility to the facility operator.

Never Bury a Damaged Facility:

Any damage, even if it appears to be minor, including a gouge, nick, scrape, cut, dent, break, or crease needs to be reported to the facility owner immediately.

If not evaluated or promptly repaired, this could potentially result in a future rupture, leak, service outage, explosion, accident, injury, or death.

Information Requested by 811 Varies by State but will Generally Include:

- ▼ Name and employer of the individual providing notification
- ▼ Name and contact information for a representative of the excavator
- ▼ Location of proposed excavation
- ▼ Start date and duration of project
- ▼ Machinery to be used
- ▼ Person or entity for whom the work is to be done
- ▼ Type of work to be done
- ▼ Approximate depth of the excavation



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

Safe Excavator App and Website:

Visit safeexcavator.com and download the **Safe Excavator** app for more extensive information including state-specific digging requirements for all 50 states, as well as:

- ▼ Safe digging app and checklist
- ▼ Leak recognition and emergency response information
- ▼ How to report damage
- ▼ Access to state excavation laws
- ▼ Information on local 811 call center(s) and enforcement agencies
- ▼ Additional prevention measures undertaken by pipelines



How To Recognize a Pipeline Leak

A pipeline release can pose dangerous hazards to the health and safety of those around the leak, as well as cause environmental damage. It is important to recognize the signs of a potential pipeline leak and know how to react.

Use Your Senses

Note: Not all signs must be present to indicate a leak!

Petroleum Liquids

(Crude oil, gasoline, diesel fuel, jet fuel, aviation gasoline, kerosene, and other refined products)

Natural Gas

HVLs
(Highly volatile liquids including natural gas liquids such as propane, butane, ethylene, and condensates)

Carbon Dioxide (CO₂)

(CO₂ is a naturally occurring, tasteless and odorless gas that can be transported in either a gas or liquid state)

Do You See?

Dead or discolored vegetation	X	X	X	
A sheen on the surface of water	X		X	
Pooling of liquids on the ground	X			
Bubbling in pools of water		X	X	X
A white vapor cloud that may look like smoke			X	
Dirt blowing from a hole in the ground		X	X	X
Fire coming out of or on top of the ground	X	X	X	
An area of frozen ground in summer		X	X	X
An unusual area of melted snow in winter		X	X	X

Do You Smell?

An odor like petroleum liquids or gasoline	X		X	
An odor like rotten eggs or a burnt match		X*	X	

Do You Hear?

A hissing or whistling noise		X	X	X
A loud roaring sound like a jet engine		X	X	

*Natural gas is odorless in its natural state. However, it can have an added smell that if released into the atmosphere may give off an acidic or unpleasant smell. Some gas gathering pipelines contain a condensate, or "petroleum-like odor."



Vapor Cloud



Oil Sheen On Water



Pooling Of Liquids On The Ground



Dead Vegetation

If You Suspect a Leak:

DO

- ▼ Leave the area on foot immediately in an upwind or crosswind direction; move as far away from the leak as possible
- Evacuate others in the area by word of mouth
- ▼ **First call 911 from a safe distance away to report the emergency**
- ▼ **After 911, contact the facility operator** using their emergency phone number
- ▼ Let emergency responders determine when it is safe to return to the area

DO NOT

- ▼ Use a cell phone (or any phone) near a suspected leak
- ▼ Investigate the area further
 - Touch, get near, or attempt to stop the flow of any escaping material
 - Turn any pipeline valves
 - Try to extinguish or control a fire
- ▼ Create a potential source of ignition (e.g. use electronics or phones, turn an electrical switch, light a match, or start a vehicle)

Questions You May Be Asked When Reporting An Emergency:

Be prepared to provide the following information:

1. Your name and contact information
2. Confirmation that you are in a safe location away from the emergency
3. Facts related to the emergency:
 - Description of the emergency
 - The people involved
 - Injuries (if known)
 - Any response that is occurring
 - Details about pipeline(s) or underground utilities in the area
4. The name of the person handling emergency response coordination
5. Current weather conditions
6. Other information as appropriate that may be helpful to the 911 dispatcher or facility operator

Facility operators are prepared to respond to emergencies in coordination with local police, fire departments, and other emergency responders.

Potential Hazards:

Some pipelines transport products that may be harmful if inhaled, may cause eye and skin irritation, or may result in difficulty breathing. Be aware of health hazards and potentially flammable or explosive conditions, as well as situations that may result in injury, electrocution, or loss of life if an underground facility is hit.

Disclaimer: *This material is meant to serve as a guide. The reader is ultimately responsible for determining the requirements applicable to their activities. To learn more about digging requirements in your state and in others, visit: www.safeexcavator.com.*


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