Staying Safe
WHEN DIGGING NEAR PIPELINES

In an emergency, call us at
1-866-322-8667

811
Know what’s below. Call before you dig.
Atmos Energy wants to help you dig safely near buried natural gas pipelines. The damage prevention tips below show you best practices and industry standards to prevent damaging gas pipelines and other underground utilities. Following these simple steps can help protect you, other workers and the public from getting hurt. Doing so also can limit costly liabilities and fines if damages do occur.

**10 STEPS for Safer Digging**

1. **Know what’s below.** Call 811 before you dig.

2. **Wait until all utilities are marked.**

3. **Use multiple ways to detect natural gas.**

4. **Call Atmos Energy before crossing a transmission pipeline.**

5. **Watch for damages like scratches, cuts, nicks or broken tracer wires.**

6. **If you hit a pipeline and think it’s leaking, call 911 and 811.**

7. **Know the hazards of natural gas.**

8. **Dig by hand in tolerance zones.**

9. **If you smell gas, leave immediately and then call 911.**

10. **Protect pipeline rights of way by keeping them clear of everything.**

**If you need our help at the jobsite, call 1-888-286-6700**

Know what’s below. Call before you dig.
Damage prevention is a shared responsibility. We will work to mark our lines accurately and promptly. We will meet with you at the worksite if needed, so that your project near our facilities can proceed smoothly and safely.

In return, we ask that you to follow the law by contacting the 811 One-Call center the required number of days before you dig. We also expect you to use safe practices, to observe all line-locate markings and to dig by hand inside tolerance zones.

If you cut or nick our pipe, federal law requires that you call us immediately, so that we can fix the problem before work resumes. Also, if you cut a tracer wire, you must notify Atmos Energy. We use tracer wires to locate our lines.

Because of cooperation between excavators and utilities, the number of pipeline damages and serious incidents has steadily declined.

Atmos Energy trains its own employees to prevent, detect and fix natural gas pipeline leaks. We coordinate with fire departments, law enforcement agencies and other public officials to ensure that our facilities are safe. And, we take seriously our commitment to inform excavators, customers and the public about preventing underground damage.

Please take a few moments to read the following information. You expect you to use safe practices, to observe all line-locate markings and to dig by hand inside tolerance zones.

Outline the excavation area with white lines.
Before calling 811, it’s best to mark the area for the excavation with white paint, flags, stakes or a combination of these to define the dig site. White lining, as it’s called, shows line locators where you plan to dig.

Hold a pre-excavation meeting.
Coordinate your digging plans with Atmos Energy and other underground facility owners well in advance to protect life and property and to avoid costly damages. On large projects, as well as on ones involving unusual situations or work near critical or high-priority facilities, hold a site meeting with all the parties to review your excavation plans. Document in writing any agreements or special requirements about the work and send a copy to everyone involved.

Never take anything for granted.
Check the excavation site to be sure that any buried utility lines have been marked. Be sure that you have received a “positive response” from any utility that has not marked the digging area. A positive response is a notification to an excavator by markings left at an excavation site or by fax, phone, e-mail, pager or written correspondence that allows an excavator to know before beginning to dig that underground pipelines have been located and marked or that there are no underground pipelines in the vicinity of the excavation.

Always call 811 before digging.
Call 811 to have all underground utilities located at the work site. It’s fast, convenient and free. It’s also required by law in every state! Studies show that 99 out of 100 excavation incidents could be prevented simply by calling 811. There is no cost to you for the 811 line-locating service or advice about safe digging.

Allow time for buried lines to be marked.
State laws typically require waiting at least two or three working days from when you request a line locate until the lines are marked and it’s safe to dig. Saturdays, Sundays and legal holidays are not counted as working days. See page 5 for the specific law in your state.

What can happen if someone digs carelessly?
Some excavators say they are too busy to call 811. Others fear losing a job from delay or they think they can break the law because they’ve not been caught before.

These attitudes can put an excavator out of business or even in jail. Buried natural gas pipelines, electric power lines, telecommunications and cable TV conduits, and water and sewer lines run everywhere. Careless digging that damages one of these lines can cause severe consequences, such as the following:

- Serious injury or loss of life and the loss to your family of your support
- OSHA and DOT investigations and wrongful-death lawsuits
- Long-term medical expenses from injuries and higher insurance rates
- Negligence lawsuits filed by property owners for losses caused by an explosion, fire, flooding, collapse, cave-in, foundation damage, or the like
- Cancellation of a project and being barred from bidding on future work
- Low productivity due to injuries or loss of essential construction equipment
- Fines for state or federal regulatory violations
- Higher rates for workers’ compensation insurance, liability insurance and surety bonds
- Liability claims for business interruptions
Dig by hand near gas pipelines.
Dig by hand to expose natural gas pipelines inside state-specified tolerance zones. Barricade all excavations wherever a gas pipeline is exposed.

Besides using color-coded paint and flags to indicate the type of facility, such as yellow for natural gas lines, a line locator might mark additional information about the underground facility with abbreviations for the facility operator’s name, the type of facility and the infrastructure material.

For example, the marking AE\G\D\4” PLA indicates that the facility operator is Atmos Energy; the facility is a natural gas pipeline; it is for distribution; and it is made of plastic pipe.

Check the excavation before backfilling.
- Do not backfill if a potential hazard exists, such as a broken tracer wire on plastic pipe, a chipped or damaged coating on a steel pipe or an unsupported pipeline at the side of the trench, etc.
- Do not backfill with rocks or sharp material packed against a natural gas pipeline.
- Use granular materials, such as sand or dirt, when backfilling.
- Backfilling should always be properly compacted.
- Do not drop or dump loads of backfill material on top of a natural gas pipeline.

Call us before crossing one of our transmission pipelines.
Please call us to discuss your plans if you intend to cross one of our transmission or high-pressure pipelines. If you are paralleling or crossing any natural gas pipeline, you must maintain a minimum separation of 12 inches. If you expose a gas pipeline, you must take extra precautions to avoid damaging the pipe’s coating by scratching or denting its outer surface. If you need our help at the jobsite, we will come out promptly to assist you.

Watch for possible damages around natural gas lines.
- Dented, bent or scratched pipe
- Coating impairment, scrapes or punctures
- Broken tracer wires
- Separated coupling between lines
- Line collapse from voids created by improper backfilling
- Damage to cathodic protection anodes

If you detect any of these problems, call Atmos Energy before continuing to work.

Never assume a pipeline is “dead.”
Current pipeline construction practices install excess flow valves (EFV) on some service lines to limit natural gas flow if the service line has been damaged. However, never assume that an activated EFV has released all the gas from the damaged pipeline. Immediately leave the area and from a safe location call 911 and Atmos Energy’s emergency number.

If you hit a natural gas pipeline and gas is escaping, call BOTH 911 and 811.
First, get everyone out of the area to a safe distance away from the gas release. Many states require an excavator to warn people nearby to leave the area. Then, call 911 and 811, if required by law, as well as Atmos Energy’s emergency number at 1-866-322-8667. Secure the area to keep out all unnecessary workers, property owners, the media and onlookers.

Escaping natural gas typically dissipates into the atmosphere, because natural gas is lighter than air. However, if trapped, natural gas can migrate through underground voids and sewer lines into nearby buildings. Make sure everyone is far away from any natural gas release. Atmos Energy technicians and first responders will control the situation.

If you disturb or damage a natural gas pipeline, including the pipe coating, federal law requires that you contact the pipeline operator immediately. Do not attempt to repair the line. Atmos Energy technicians will respond promptly and will make any needed repairs.

From the federal PIPELINE INSPECTION, PROTECTION, ENFORCEMENT, AND SAFETY (PIPES) ACT OF 2006, PUBLIC LAW 109-468—DEC. 29, 2006

SEC. 2. PIPELINE SAFETY AND DAMAGE PREVENTION
“(d) PROHIBITION APPLICABLE TO EXCAVATORS—A person who engages in demolition, excavation, tunneling, or construction—

“(3) and who causes damage to a pipeline facility that may endanger life or cause serious bodily harm or damage property—

“(A) may not fail to promptly report the damage to the owner or operator of the facility; and

“(B) if the damage results in the escape of any flammable, toxic, or corrosive gas or liquid, may not fail to promptly report to other appropriate authorities by calling the 911 emergency telephone number.”

Eliminate all ignition sources near a natural gas release.
- Prohibit all smoking or open flames.
- Remove all cellphones, pagers, two-way radios and bullhorns.
- If mechanical equipment or a vehicle is running, leave it on; if it is off, leave it off and do not attempt to move it.
- Knock to warn residents to leave the area; do not ring doorbells.

Know the hazards of natural gas.
An uncontrolled natural gas release can pose many potential hazards.
- Escaping natural gas is highly flammable and can easily ignite.
- Natural gas can flow into underground voids and openings, such as sewer lines and nearby structures.
- Natural gas that has collected in an area can explode if a spark or other ignition source occurs.
- Rupturing a natural gas pipeline also can cause an explosion.
- Natural gas displaces oxygen in a confined space and can cause asphyxiation.
- Natural gas in most transmission pipelines is not odorized; not only can you not smell it, you cannot see it because it is colorless.
Do not turn any natural gas valves. Never close or open any valve on a natural gas main, regulator station or transmission pipeline. Doing so can cause pressure problems and worsen the situation. Only Atmos Energy’s technicians should operate these valves, especially if a pipeline has been damaged.

Watch for pipeline marker signs.
A pipeline’s route, called a right of way (ROW), is marked with warning signs. Markers for natural gas pipelines are bright yellow. Marker signs display the product in the pipeline, the pipeline operator’s name and its emergency telephone number.

![Marker sign](image)

Markers do not show a pipeline’s exact location or depth. The location of pipeline warning markers cannot be relied upon to guide excavation. Only a professional line locator can accurately mark underground lines.

Find pipeline rights of way and operator information online.
You can view a map of the approximate routes of all natural gas and hazardous liquids transmission pipelines in an area and find the operators of those lines on the government’s National Pipeline Mapping System at [www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov). The NPMS, however, does not show natural gas distribution mains and service lines or any other underground utility lines for electric, water, sewer and telecommunications services.

Know the three ways to detect a natural gas release.
You can detect leaking natural gas by smell, sound or sight.
- **Smell** the distinctive, rotten-egg odor that makes natural gas detectable.
- **Listen** for a hissing or whistling sound near a natural gas facility or a roaring sound near a gas pipeline.
- **Look** for a dense fog, blowing dirt, a bubbling creek or pond, dry spots in moist areas or dead vegetation above a gas line.

Natural gas in its raw state has no smell or color. That’s why we add an odorant to the gas we distribute to make you aware if it is leaking. An odorant helps ensure that “the gas is readily detectable by a person with a normal sense of smell.” However, most natural gas transmissions pipelines are not required to odorize gas, and the gas that they typically transport is not odorized. This makes it harder to detect a pipeline leak simply by smell.

Use all your senses to detect a gas leak.
The sense of smell for most people is a highly reliable indicator of a natural gas release. However, a continued exposure to mercaptan, the most typical odorant added to natural gas, can desensitize the sense of smell. Therefore, if anyone smells natural gas, do not wait! Evacuate the area immediately, and then call 911 and Atmos Energy.

Workers suffering from anosmia, olfactory fatigue or recurrent ailments, such as colds, sinus conditions or allergies, can have a diminished capability to detect leaking natural gas. Use of tobacco, alcohol, medications or narcotics can lessen the ability to smell odorized gas. Diesel fumes, hot asphalt, paints, pungent chemicals used in some lines of work and off-gassing of new building materials can also mask the odor of mercaptan.

If a medical ailment, working condition or lifestyle might prevent you or your workers from smelling natural gas, use all your senses—smell, listen and look—to check for telltale signs of a leak.

If you smell gas, leave immediately and then call 911.
If you ever smell a natural gas leak, leave the area immediately and tell others to leave, too. If evacuating a building, leave any doors open.

- **Do not turn on or off any electric switch because this could cause a spark, igniting the gas.**
- **Do not use a cellphone, telephone, garage door opener or even a flashlight.**
- **Do not smoke, use a lighter or strike a match.**
- **Do not ring a doorbell to notify others; knock on the door.**
- **Do not start or stop vehicles or machinery.**
- **Do not attempt to shut off a natural gas valve.**

Once everyone is safely out of the area, call 911 and Atmos Energy at 1-866-322-8667. We will send a trained technician immediately to investigate. Remain close by to explain what happened when our technicians or the first responders arrive.

Protect all pipeline rights of way near a worksite.
Before excavating near a pipeline that has been located and marked, hold a tailgate or safety meeting with your entire crew to clearly identify the right of way and to explain the following safety precautions:
- The pipeline right of way must remain clear of all obstacles for public safety. The pipeline operator must be able to inspect the route visually for leaks and to make repairs quickly if needed. Therefore, never—even temporarily—put on a right of way any obstruction, such as a vehicle or machinery, a trailer or portable building, a tool or storage shed, refueling station, gravel, sand, building materials, or brush and debris.
- Never burn waste or attempt a controlled burn, hazard reduction burning, field burning or swailing on or near a pipeline right of way.
- When excavating near a pipeline right of way, keep in mind that work such as drilling wells or boreholes, pile driving, blasting, dispensing fuel or storing flammable materials, cutting trees, removing stumps or pulling heavy loads could affect the pipeline.

If your excavation is near one of our high-pressure pipelines or you plan to cross one of our transmission pipelines, our personnel will need to be onsite. Please contact us well in advance of beginning excavation.

Help us keep pipeline rights of way clear.
Please advise any customer who wants to build or place obstructions on a pipeline right of way that it is against the law. Trees, bushes, gardens, patios, carports, sheds, swing sets, above-ground swimming pools, portable buildings, brush or debris cannot be put on a right of way. If you are asked to do so, call us. We will be happy to explain the prohibitions to the property owner or tenant without involving you.

![Buried high-pressure natural gas pipelines have wide rights of way that are cleared of all structures and trees, and the pipeline route is indicated by yellow pipeline warning signs.](image)
Recognize standard line-marking colors.
From experience, most professional excavators, construction tradesmen and commercial landscapers know the color code that line locators use to mark underground facilities. Be sure all of your employees are trained to be able to identify what the colored flags and paint indicate.

Prevent cross bores inside sewers.
In some locations where horizontal or trenchless boring has been used to install buried natural gas lines, utilities have occasionally discovered the gas line was unknowingly bored through an existing sewer line.

If a sewer blockage occurs, a municipality, plumber, drain cleaner or property owner might try to clear the blockage using mechanical cutting equipment. If a cross-bored natural gas line is cut or nicked while unlogging a sewer, it can create a serious hazard. Damaging a gas line can cause a fire or explosion and can lead to serious property damage or injury to those working on the sewer line and to people in nearby structures.

Therefore, when doing horizontal or trenchless boring, inform the 811 One-Call center of the entire excavation path that needs to be marked. Do not begin trenchless excavation without making every effort to locate and expose all underground utilities to verify there is no conflict.

After installing a pipe or cable with trenchless technology, check to be sure the new line has completely cleared any existing line. Inspect the installation either by exposing the existing sewer line by hand or by running a remote video camera through the existing line to check its integrity and to guarantee against a cross bore.

Check before clearing sewer lines.
If you are clearing a blocked sewer line, examine the inside of the line for cross-bored utility lines using a remote video camera before inserting any power equipment.

A cross-bored utility line can be a ticking time bomb. Even a minor nick in a cross-bored natural gas line can allow gas to leak and migrate through the sewer line into a nearby structure. A cross-bored electric line can cause a deadly electrical shock from a ground fault. Whether crossing a sewer line or clearing one, always check for a cross-bored line.

Use acceptable preconstruction verification methods.
- Visually inspect by exposing the facility to be certain that trenchless equipment has crossed the exposed facility without conflict.
- Determine that the facility is not in the excavation path by using locate information, probing, manhole inspection, measurements, etc.
- Verify that no conflict exists, using camera sonde locating technology that is run through the existing line.

When trenchless excavation is used to install natural gas lines in areas where conflicts with sewer facilities cannot be positively ruled out using preconstruction verification methods, use post-construction video camera inspection of all sewer mains and lateral facilities in the area. Make these inspections as soon as practical after installing the new facilities.

Follow best practices for damage prevention.
The Common Ground Alliance has developed best practices for damage prevention. Besides the key points already noted, these additional best practices can help you complete your excavation project safely.

- Individual locate requests. Construction projects sometimes require several excavators to work in the same area. Yet, each contractor’s scope of work and schedule differ. So, it is important that you contact the 811 One-Call center yourself about your own work. Relying on other excavators to call 811 to request a line locate or to explain your work plan is dangerous.

- One-Call locate-ticket number at the jobsite. Having a valid locate ticket at the jobsite ensures that a request was made for the proper excavation area. Many state One-Call laws require that the excavator be able to produce the locate request if an incident occurs. This lets authorities verify that the excavator did, in fact, have a valid ticket number and helps when checking the line locator’s work. If you find that you do not have a valid locate ticket, stop all excavation work, contact 811 and request a line locate.
• **Contact names and numbers.** Pipeline operators sometimes need to contact an excavator about a construction project, or a line locator may have questions about the locate request. Therefore, be sure to provide the correct contact name and a cellphone or office phone number to ensure good lines of communication.

• **Mismarked or unmarked facilities.** If underground facilities in the area have been mismarked or not marked, stop all digging and notify the utility operator by calling 811.

• **Locate-request updates.** Line locate markings use temporary paint on the ground and colored flags. These markings can fade as well as be destroyed during excavation or by other sources, such as a mowing crew and the weather. If the marks are not visible, call 811 to request a new line locate. You can also call 811 to have the locate marks refreshed to prevent delaying your project. There is no charge for this service.

• **Excavation observer.** A skilled observer watching as your excavation proceeds lowers the likelihood of damaging underground facilities. The observer acts as a spotter to warn the construction equipment operator of any buried facilities that could be damaged.

• **Excavation in the tolerance zone.** When excavating within the specified tolerance zone, exercise all reasonable care to protect any underground facility in or near the excavation area. The methods to consider, based on the climate or geographical conditions, include hand digging when practical (potholing), soft digging, vacuum excavation methods, pneumatic hand tools, other mechanical methods with the approval of the facility owner or operator, or other technologies that are appropriate. Hand digging and noninvasive methods are not required for pavement removal.

• **Exposed facility protection.** Exposed facilities are as vulnerable to damage as buried facilities. Removing the excess from a buried line can destabilize the support that the soil provides. If the pipe shifts, its integrity can be weakened, putting it at risk to leak. When working around exposed pipe, do not climb on it, strike it or move it.

  Natural gas facilities rely on various methods to protect the integrity of pipelines. For example, some steel pipe has a wrapped coating for cathodic protection. If you scrape this coating during your project, the unprotected pipe can be at risk to rust and leak. If you ever damage one of our pipelines or its coating, stop work and immediately call Atmos Energy. Wait to resume until we inspect and repair the exposed pipe.

• **Test pit.** Because a facility’s depth is not indicated by the line locate, digging a test pit, potholing or daylighting of the underground facility to determine its depth and location is the best practice to minimize damage. Digging test pits around the facility in the path of a horizontal boring project allows the excavator to accurately set depths of the directional drilling head and lets the excavator observe the boring head and back reamer to be sure they clear the facility without damage.

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**Know the regulatory requirements in your state.**

Information about state damage prevention regulations is listed below.

- **Colorado** Colorado Department of Regulatory Agencies–Public Utilities Commission
  - [www.colorado.gov/pacific/dora/digsafely](http://www.colorado.gov/pacific/dora/digsafely)
  - [colorado811.org/web/guest/resources](http://colorado811.org/web/guest/resources)
  - Advance Notice: Two days, not to include the day of notice
  - Marks Valid: 30 days from the date of the locate or until no longer visible, whichever comes first. A new locate request must be sought after this time has expired.
  - Tolerance Zone: 18 inches

- **Indiana** Indiana Utility Regulatory Commission
  - [www.in.gov/ourc/2632.htm](http://www.in.gov/ourc/2632.htm)
  - Advance Notice: Two working days
  - Marks Valid: 20 working days
  - Tolerance Zone: 24 inches

- **Kansas** Kansas Corporation Commission
  - [www.kansasonecall.com/static/pdf/KUUDPA_04.03.2010.pdf](http://www.kansasonecall.com/static/pdf/KUUDPA_04.03.2010.pdf)
  - Advance Notice: Two working days
  - Marks Valid: 21 calendar days
  - Tolerance Zone: The area not less than 24 inches of the outside dimensions in all horizontal directions of an underground facility

- **Kentucky** Kentucky Public Service Commission
  - Advance Notice: Two working days
  - Marks Valid: 21 calendar days from the day of the initial request
  - Tolerance Zone: A distance not to exceed the combined width of the underground facility plus 18 inches measured from the outer edge of each side of the underground facility

- **Louisiana** Louisiana Department of Public Safety and Corrections
  - [www.sos.la.gov/OurOffice/CallBeforeYouDig/Pages/default.aspx](http://www.sos.la.gov/OurOffice/CallBeforeYouDig/Pages/default.aspx)
  - Advance Notice: 48 to 120 hours
  - Marks Valid: 20 calendar days or as long as marks are still visible
  - Tolerance Zone: 18 inches

- **Mississippi** Mississippi Public Service Commission
  - [ms1call.org/one-call-law](http://ms1call.org/one-call-law)
  - Advance Notice: Two working days
  - Marks Valid: 14 calendar days
  - Tolerance Zone: 18 inches

- **Tennessee** Tennessee Regulatory Authority
  - Advance Notice: Not less than three working days and not more than 10 working days
  - Marks Valid: 15 calendar days
  - Tolerance Zone: 24 inches

- **Texas** Railroad Commission of Texas
  - [www.rrc.state.tx.us/pipeline-safety/pipeline-damage-prevention-program/](http://www.rrc.state.tx.us/pipeline-safety/pipeline-damage-prevention-program/)
  - Advance Notice: Two working days, but not more than 14 days
  - Marks Valid: 14 working days
  - Tolerance Zone: 18 inches plus half the nominal diameter of the pipeline from the outside edge of either side of the pipeline

- **Virginia** State Corporation Commission of Virginia
  - Advance Notice: Two working days, excluding the day of the call
  - Marks Valid: 15 working days
  - Tolerance Zone: 24 inches

State damage prevention organizations sponsor training seminars, field demonstrations and industry meetings about excavating safely. For more information or to attend one of these sessions, contact Atmos Energy.
What? You don't think that you should pay attention to a little yellow flag? Well, I'm the best thing to keep your crew safe. Call 811 before digging, and Atmos Energy will plant me and my pals wherever natural gas lines are buried. Trust me, if I'm around you'll want to pay close attention.