

DAMAGE PREVENTION & NATURAL GAS **Safety Information** For Excavators and Contractors

Work safe so you can go home safe!

Información en español
en el interior.



SOUTHWEST GAS

swgas.com/safety

As a company that may excavate in our service territory, federal regulations require us to share important natural gas safety information with you. The following messages are intended to provide essential reminders about staying safe while working with or around natural gas.

For more information about natural gas pipeline safety, visit us at swgas.com/safety

Although natural gas pipelines are considered one of the safest methods of energy transportation in the United States, damage to pipelines can occur due to improper excavation, corrosion, or natural disasters, which may result in the release of natural gas. A natural gas leak has the potential to lead to evacuations, service outages, fire or explosion, property damage, injury, or loss of life. Timely recognition and response help minimize the potential effects caused by escaping gas.

SIGNS

of a Natural Gas leak



SMELL

a distinct sulfur-like odor, similar to rotten eggs, even if it's faint or momentary.



HEAR

a hissing or roaring coming from the ground or aboveground pipeline.



SEE

dirt or water blowing into the air, unexplained dead or dying plants or grass, or standing water continuously bubbling.

FOR EVERYONE'S SAFETY...

...IF A LINE HAS BEEN DAMAGED OR IF YOU SUSPECT A LEAK:



Scan QR Code for Southwest Gas Safety Website

- **Leave the area immediately.**
- Move to a safe location and call **911** and Southwest Gas at **877-860-6020**, day or night. Remain at this location until fire department and Southwest Gas emergency crews arrive.
- Secure the area and keep all coworkers, bystanders, and traffic from entering.
- Don't enter the area where natural gas is escaping.
- Don't smoke or use lighters or matches.
- Eliminate nearby sources of ignition, such as sparks or flames.
- Don't move equipment, or turn it on or off, near the linebreak.
- Don't repair any damage or control the flow of natural gas.
- Don't extinguish a fire should ignition of escaping gas occur.

CALL 811 BEFORE YOU DIG—IT'S THE LAW

Natural gas pipelines can be buried anywhere. State law requires that excavators call a one-call center at least two working days before starting any digging project so that underground utilities can be marked. Calling **811** is the first step. They'll take your proposed excavation information and transmit it to Southwest Gas and other underground facility owners. We'll respond and mark each gas pipeline with yellow paint, yellow whiskers, yellow flags, or yellow stakes, and label the yellow marking with "SWG," so you'll know which markings are for our facilities. Additional markings are also provided including the size and material type and whether or not it's a distribution or high pressure-facility.

A quick phone call can prevent unnecessary damage to underground pipelines and avoid significant penalties or repair bills for the person digging into our pipeline. Remember to call **811** before you dig -- it's free, it's easy, it's the law.



SAFETY IS IN YOUR HANDS.
EVERY DIG. EVERY TIME.

5 STEPS TO SAFE EXCAVATION



1 DEFINE THE DIG
Mark the area where you'll be digging.

2 CALL 811 BEFORE YOU DIG
It's free. It's the law!

3 WAIT THE REQUIRED TIME
It pays to wait!

4 RESPECT THE MARKS
Don't destroy the marks...they're there for your safety!

5 EXCAVATE WITH CARE!
Careless or unsafe excavating could damage the pipeline. This could result in a natural gas leak which has the potential to lead to evacuations, service outages, fire or explosion, property damage, injury, or loss of life.

For more information, please call **800-654-2765** and ask about our free damage prevention workshops or visit **swgas.com/safety**.

DIGGING WITH CARE NEAR MARKED UTILITY LINES

- To avoid damaging a utility line, consider moving your project to a location where there is no utility locate marks.
- If your project cannot be moved, dig with care to prevent damage:
 - Carefully hand dig within two feet (the tolerance zone) of the locate marks.
 - Always use a rounded or blunt-edge shovel. Sharp tools like pickaxes, mattocks, pry bars, or pointed spades may gouge or puncture lines.
 - Begin by digging two feet off to the side and perpendicular to the locate marks.
 - Use a gentle, prying motion to break away soil as you approach the utility laterally.
 - Pay attention to changes in the digging conditions such as digging gets softer, you notice sand, or even trash, as this may indicate you are in close to the facility.
 - Determine the exact location and depth of the utility line, not just the tracer wire or warning tape.
 - Never assume depth of the utility line or rely past locate marks when digging.

Scan QR Code for Damage Prevention Training Information



Utility Line Markings

WHAT THE MARKINGS MEAN



YELLOW
Gas, oil, dangerous materials, products lines

RED
Electric power

ORANGE
Communications, cable TV Fiber optics (with F)

BLUE
Water systems, slurry pipelines

GREEN
Sanitary sewer systems

PURPLE
Reclaimed water

WHITE
Proposed excavation

PINK
Temporary survey



YELLOW
Gas, oil, steam, petroleum or gaseous materials

RED
Electric power lines, cables, conduit and lighting cables

ORANGE
Communication, alarm or signal lines, cables or conduit

BLUE
Potable water

GREEN
Sewer and drain lines

PURPLE
Reclaimed water systems, irrigation and slurry lines

WHITE
Proposed excavation

PINK
Temporary survey

Southwest Gas Markings

- Marking Methods
 - In paved/hard surface areas – yellow paint
 - In unpaved areas – yellow paint (when practical), stakes, flags, whisksers
 - ◊ When ground conditions are unsuitable, i.e., powdery sand, for marking and labeling the appropriate facility markers (whiskers, flags, etc.) may be used.
 - SCADA, cathodic protection, and cathodic protection failing systems, when present – red paint
- Pipelines will be marked/labeled with the following information:
 - Company: SWG
 - Pipe Material: plastic or steel (no abbreviations)
 - ◊ Additional descriptions may be used:
 - PE = Polyethylene
 - PVC = Polyvinyl Chloride
 - If known, facilities installed in casing/sleeving may be labeled.
 - Facility Type:
 - ◊ D = Distribution facility
 - ◊ HP = High-Pressure facility
 - ◊ Vault (only when substructure is larger than the opening)
 - Pipe Sizes with fractions: 3/4-inch, 1/2-inch, 1-1/4-inch etc. The word “inch or symbol (”) may be used.
 - When practical, marks will be placed directly over the facility.
 - “Offset” markings/staking may be used and will indicate the direction, distance, and path of the facility.
 - Arrows will be used to show the change in direction of the facility to indicate angle points and branch connections



Paint, Flags, and Whiskers – What do they mean?

- Utility companies mark the location and path of their buried utility lines (think water, electricity, natural gas, sewer) using paint, flags, and whiskers along with their company name after someone contacts 811 to request a locate ticket before digging.
- Paint, flags, and whiskers (locate marks) show the approximate location of buried utility lines but may not be exact.
- Utility lines may be located within two feet (the tolerance zone) of either side of the locate marks and do not show the depth of the utility line.
- Each utility company listed on the locate ticket will individually mark their utility lines or contact the owner of the locate ticket to notify that their company does not have utility lines in the area identified on the locate ticket.
- If a utility company does not respond to the locate ticket by the date listed on the locate ticket, contact the company or 811.
- Locate marks are to keep people safe from injury or death, costly repairs, or utility service outages that may result if a utility line is damaged.



Yellow Pipeline Markers

Since most natural gas pipelines are buried underground, line markers are used to indicate the approximate location of the pipeline.

Pipeline markers:

- Are yellow
- Are typically seen where a pipeline intersects a street, highway, railway, or open field
- Are NOT required for all pipeline facilities
- DO NOT indicate the pipeline's depth or exact location
- List emergency telephone numbers in case of a natural gas emergency

Make sure these markers are left undisturbed to help remind others that natural gas lines are in the area. Calling **811** is still required for marking the pipelines, even if the markers are present.

Additionally, below-ground markers, such as yellow warning tape or mesh, may be present to warn excavators of the presence of buried pipe. If this below ground marking tape is encountered, stop work immediately and call Southwest Gas.

Federal Law States

“Any person who willfully and knowingly defaces, damages, removes or destroys any pipeline sign or marker shall, upon conviction, be subject for offense to a fine of not more than \$5,000, imprisonment for a term not to exceed one year, or both.”



RULES TO ENSURE YOUR SAFETY

EXCAVATION OR INSTALLATION RULES

- Hand dig within 24" of the natural gas pipeline until it's exposed.
- Support pipelines during construction or excavation.
- Exposed pipelines need a 12" separation from all other utilities or sub-structures. If the 12" minimum cannot be maintained call Southwest Gas so other steps to protect the natural gas line can be taken.
- Backfill the excavation 6" below and 6" above the pipeline with 3/8" minus shading material. This material under and around the pipe must be compacted, but DO NOT compact directly over the pipeline.
- If performing work near a high-pressure pipeline, call Southwest Gas 24 hours in advance to schedule a technician to standby. If a high-pressure pipeline is exposed, call us 24 hours a day, 7 days a week, and we'll immediately dispatch personnel to inspect the pipeline.

NON-LEAKING DAMAGES TO PLASTIC PIPE OR PROTECTIVE COATING ON STEEL PIPE

- Stop excavating and call Southwest Gas immediately if steel or plastic pipe or protective coating on steel pipe (which may contain asbestos), has been scuffed, nicked, or damaged without leaking gas, or if the tracer wire on plastic pipe has been broken or damaged. Repairs must be made by Southwest Gas crews and usually you won't be charged.
- Some abandoned Southwest Gas steel pipe with asphaltic coating may contain asbestos. Please call Southwest Gas before you disturb the coating on any pipe that may be an abandoned Southwest Gas pipe so that we can inspect and, where appropriate, render the pipe safe for removal. This inspection and related remediation is usually done without charge to you. Improper handling of coating that contains asbestos can be harmful to your employees and the general public and can subject you to liability and to civil and criminal penalties.

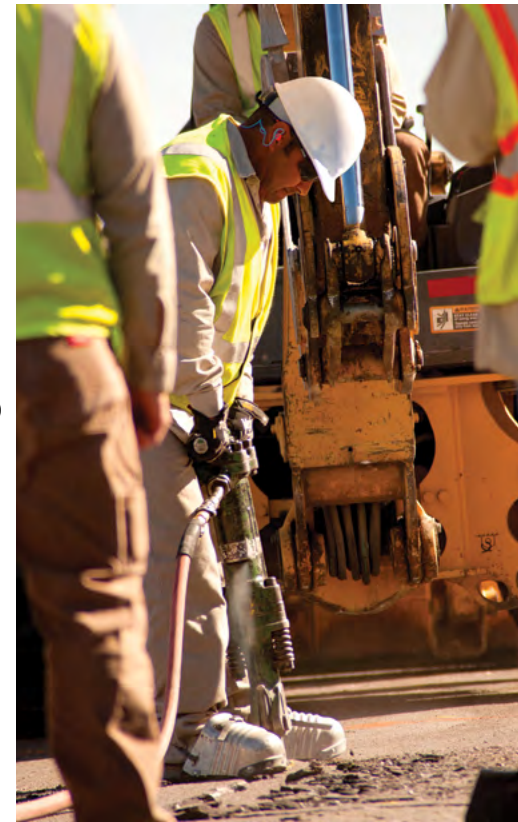


BORING UNDERGROUND AND BLASTING ALERTS

- The boring method merits its own special work practices around natural gas pipelines that differ from open trench installation. When you call **811** to request a line locate, be sure to tell the operator that boring is planned. This will help to ensure that the operator correctly completes your order.
- Potholing is required prior to boring near natural gas pipelines. Request that Southwest Gas personnel visually verify the exposed gas facilities prior to the bore operation. During the boring process, periodically inspect the pipeline facilities. Notify Southwest Gas immediately if you or others involved have any concerns or find any damage.
- **Call us before blasting if there are natural gas facilities in the area.** A leak survey must be conducted on all natural gas pipelines located within 250' before and after any blasting activity. While there are no charges for these services, one of our representatives must standby during blasting and boring activities.

EXCAVATING NEAR TRANSMISSION (HIGH-PRESSURE) PIPELINES

- Prior to performing any work in the vicinity of a high-pressure pipeline, call us 24 hours in advance to schedule a technician to standby while you're excavating around our high-pressure pipeline facilities.
- If at any time you've exposed a natural gas transmission (high-pressure) pipeline, it's important to call Southwest Gas at **877-860-6020** 24 hours a day, 7 days a week, and we'll immediately dispatch personnel to inspect the pipeline.



CROSS BORE INFORMATION FOR EXCAVATORS/PLUMBERS

Natural gas utilities across the country have discovered locations where natural gas pipes were inadvertently installed through sewer pipes. This doesn't create a safety hazard if the natural gas pipe is undamaged. However, damage to natural gas pipes can occur when equipment is used to unclog sewer pipes. This can lead to a natural gas leak that could result in a fire or explosion, possibly causing injury or death to those who unclog the sewer pipes and to those in structures attached to the sewer pipe.

CALL BEFORE YOU CLEAR - KNOW WHAT'S INSIDE

If you're called to an address with a possible blockage in an outdoor sewer pipe, please call Southwest Gas at **877-860-6020** and press "9" for immediate assistance, even if the address doesn't have gas. The intersecting natural gas line could be serving others in the neighborhood. Southwest Gas will respond promptly to mark the location of our underground pipe before you clean out the sewer pipe. There's no charge for this service.

SENSE A BUMP? CALL IT IN!

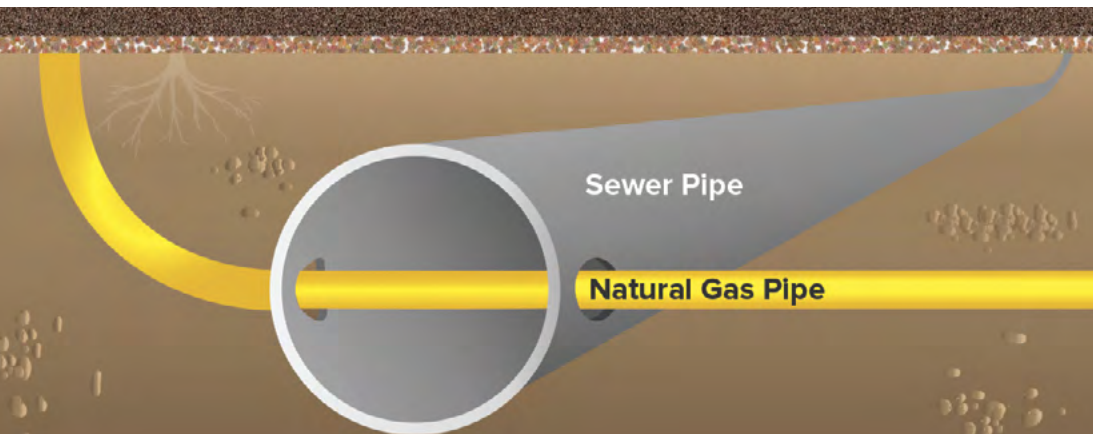
If you begin clearing a sewer pipe and sense or see, but haven't penetrated, an obstruction in the pipe, call Southwest Gas at **877-860-6020** and press "9" for immediate assistance. A Southwest Gas representative will be there as soon as possible to ensure that a gas pipe hasn't been damaged. There's no charge for this service.

TAKE IMMEDIATE ACTION IF YOU ENCOUNTER ANY OF THE FOLLOWING SIGNS WHEN YOU CLEAN OUT A SEWER LINE WITH A ROOTER DEVICE:

- A natural gas odor at the cleanout or inside the building served by the sewer line, even if it's faint or momentary.
- Bubbles rising through standing water or in the toilet bowl.

IF THESE SIGNS ARE PRESENT, STOP WHAT YOU'RE DOING, AND:

- **Exit the area or building immediately.** Tell others to evacuate and leave doors open.
- Don't use an automated door or turn on or off any electric switches, thermostats or appliance controls.
- From a safe place, call **911** and Southwest Gas at **877-860-6020** immediately, day or night. A Southwest Gas representative will be there as soon as possible.
- Don't smoke or use lighters or matches.



ADDITIONAL SAFETY INFORMATION

PURGING NATURAL GAS

Whenever you purge a natural gas line, don't rely on your sense of smell alone to detect the presence of natural gas.

An improperly performed purge may cause a fire or explosion, property damage, injury, or death. For more information, please consult the 2012 National Fuel Gas Code and the Southwest Gas Safety Data Sheets (SDS) at swgas.com/safety.

EXCESS FLOW VALVES

Southwest Gas installs devices in its service lines that automatically shut in the event of damage. Known as an Excess Flow Valve (EFV), these valves may activate if there's excavation damage or any other damage to an underground or aboveground gas facility. It's important to understand the EFV doesn't shut off the flow of gas completely. Some leakage may still occur and result in a hazardous condition. A person performing an excavation is responsible for immediately reporting any damage to gas facilities.

EMERGENCY PLANNING & TRAINING

Southwest Gas continually collaborates with local emergency response officials through regular meetings, participation in emergency response drills, and ongoing review of deployment practices. This allows each organization to refine safety procedures and coordinate how to respond with others involved in the event of a natural gas incident or emergency. Additionally, Southwest Gas provides pipeline safety training to employees and contractors. If you're interested in attending safety training, call **800-654-2765** for more information.

RIGHTS-OF-WAY ENCROACHMENT

A right-of-way is a strip of land where some of the property owner's legal rights have been granted to a utility company. They allow the pipeline operator to inspect, repair, maintain, or replace pipeline on property owned by others. Pipeline markers are often placed along the rights-of-way to indicate the pipeline's approximate location.

Encroachments into the rights-of-way can cause unsafe conditions. When a pipeline is accidentally damaged by excavation and other construction activities, outages, impaired access, excessive/dangerous loads on the pipeline, and evacuations can occur.

Safety of rights-of-way can be promoted by:

- Always calling **811** at least two working days before any digging, blasting, or boring project
- Using safe excavation practices
- Monitoring and reporting suspicious activity on a rights-of-way
- Keeping rights-of-way free from obstructions
- Following recommended practices on land use near rights-of-way

PROVIDING GAS SAFELY

Southwest Gas delivers natural gas safely and reliably through our pipeline systems. To ensure the continued integrity of these pipeline systems, we've implemented safe construction practices and procedures, as well as perform pipeline improvement projects and conduct routine safety inspections. To advance the safety of natural gas transmission high-pressure pipelines in populated areas, we've also developed and implemented a pipeline integrity management program. As a result of these efforts, Southwest Gas continues to meet or exceed all federal and state requirements for safe pipeline operation and maintenance.



Important Phone Numbers and Websites

FOR GAS EMERGENCIES AND ADDITIONAL INFORMATION:

- Southwest Gas Emergency Number **877-860-6020**
- For more information about natural gas safety visit **[swgas.com/safety](https://www.swgas.com/safety)** or call **877-860-6020**
- Safety Data Sheets (SDS) for odorized natural gas **[swgas.com/safety](https://www.swgas.com/safety)**
- U.S. Department of Transportation Pipeline Safety Community **[phmsa.dot.gov/pipeline](https://www.phmsa.dot.gov/pipeline)**
- Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety National Pipeline Mapping System **npms.phmsa.dot.gov**
- Occupational Safety and Health Administration (OSHA) **[osha.gov](https://www.osha.gov)**



SOUTHWEST GAS



SAFETY IS IN YOUR HANDS.
EVERY DIG. EVERY TIME.

Damage Prevention & Natural Gas **Safety Information**

Please share with others in your organization.

Información de seguridad.

Por favor comparte esta información con otros en su organización.



LA SEGURIDAD ESTÁ EN SUS MANOS.
CADA EXCAVACIÓN. CADA VEZ.