



SOUTHWEST GAS

Natural Gas
SAFETY

For Excavators

Información en
español en el
interior.



2014
NATURAL GAS
SAFETY FOR
EXCAVATORS
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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.



SIGNS▶▶▶▶

of a Natural Gas leak



For information about
natural gas pipeline
safety, visit us at
swgas.com/safety, or call
1-877-860-6020



**Southwest Gas 24-Hour
Emergency Phone Number:**

1-877-860-6020

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 1-800-654-2765 for more information.

Recognition & Response

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. 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. Timely recognition and response help minimize the potential effects caused by escaping gas.

» SMELL

an odor similar to rotten eggs, even if it's faint or momentary.

» HEAR

a hissing or roaring coming from the ground or above-ground pipeline.

» SEE

dirt or water blowing into the air, discolored vegetation surrounding a pipeline, or standing water continuously bubbling.

FOR EVERYONE'S SAFETY...

...if a line has been damaged or if you suspect a leak:

- Leave the area immediately.
- Move to a safe location and call **911** and Southwest Gas at **1-877-860-6020**, 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 natural 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.



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

5 STEPS

to safe excavation



For more information, please call 1-800-654-2765 and ask about our free damage prevention workshops or visit www.swgas.com/safety.

1. White Line Proposed Excavation

Define where you're 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.

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.

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 **1-877-860-6020** 24 hours a day, 7 days a week, and we'll immediately dispatch personnel to inspect the pipeline.

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 to the presence of buried pipe. If this belowground 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.”

UTILITY LINE MARKINGS

and what they mean



Arizona

YELLOW

Gas distribution and transmission, oil product distribution and transmission, dangerous materials

RED

Electric power distribution and transmission

ORANGE

Telephone and telegraph system, cable television

THE LETTER "F" IN SAFETY ALERT

ORANGE

Fiber optics communication lines

BLUE

Water systems, slurry pipelines

GREEN

Sanitary sewer systems

PURPLE

Reclaimed water systems

WHITE

Proposed excavation

California & Nevada

YELLOW

Gas, oil, steam, petroleum, gaseous or dangerous materials

RED

Electric power lines, cables, conduit and lighting cables

ORANGE

Communication, alarm or signal lines; cables or conduit systems

BLUE

Potable water

GREEN

Sewer and drain lines

PURPLE

Reclaimed water systems, irrigation and slurry lines

WHITE

Proposed excavation

Sewer Lateral Information for Excavators/Plumbers

Natural gas utilities across the country have discovered locations where natural gas pipes were accidentally 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 unlog 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 unlog the sewer pipes and to those in structures attached to the sewer pipe.

Call 811 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 811 and follow the instructions for sewer clearing, 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 1-877-860-6020 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.



Know How to Recognize and Respond to a Gas Emergency While Performing Sewer Work

Take immediate action if you encounter any of the following signs when you clean out a sewer line with a roter 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:

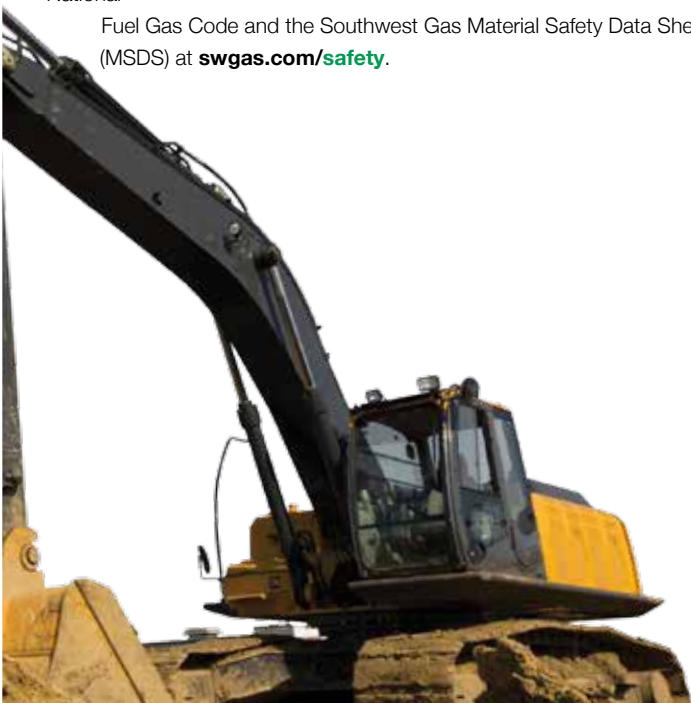
- Leave the area immediately.
- Don't use an automated door or turn on or off any electric switches, thermostats or appliance controls.
- From a safe place, call **911** and Southwest Gas at **1-877-860-6020** immediately, day or night. A Southwest Gas representative will be there as soon as possible.
- Don't smoke or use lighters or matches.

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 Material Safety Data Sheet (MSDS) at swgas.com/safety.





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

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.



IMPORTANT PHONE NUMBERS AND WEBSITES

For Gas Emergencies and Additional Information:

- Southwest Gas Emergency Number
1-877-860-6020
- For more information about natural gas safety visit **swgas.com/safety** or call **1-877-860-6020**
- Natural Gas MSDS **swgas.com/safety**
- U.S. Department of Transportation Pipeline Safety Community
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**

