



SOCALGAS' APPROACH TO PIPELINE INTEGRITY

Southern California Gas Company (SoCalGas®) is committed to providing clean, safe and reliable natural gas to its customers and takes important steps to validate the integrity and safety of natural gas transportation through its pipelines. SoCalGas remains committed, through the allocation of significant resources, to the improvement of pipeline safety for its customers.

SoCalGas System and Pipeline 101

SoCalGas is the nation's largest gas distribution utility, providing safe and reliable energy to 20.9 million consumers connected through nearly 5.8 million meters in more than 500 communities. SoCalGas operates more than 101,000 miles of natural gas pipelines. These pipelines are regulated by the California Public Utilities Commission (CPUC)

The company's service territory encompasses approximately 20,000 square miles throughout central and Southern California from Visalia to the Mexican border. SoCalGas pipelines transport natural gas received from interstate pipelines and natural gas from California producers to its customers through a complex network of pipelines. Large transmission lines, some as large as 36 inches in diameter and ranging in pressure generally from 200 to 1,000 psig (pounds per square inch above atmospheric pressure), transport natural gas into the population centers where they connect to distribution lines ranging in size from one inch to 20 inches and generally operating at lower pressures. Service lines of one-half to one inch in diameter branch off of the distribution pipes delivering natural gas to homes at less than one-third psig.

The Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) defines natural gas pipelines under two categories, "Transmission" and "Distribution." Transmission pipelines are primarily used to receive gas from suppliers and move it to distribution load centers or to storage facilities. Distribution lines are used to deliver gas to customers. These categories are separated primarily by the stress level at which they operate. The Distribution category is further divided into two subcategories: High Pressure Distribution mains, which have a maximum allowance operating pressure greater than 60 psig; and, Distribution mains and services, which have a maximum allowable operating pressure of 60 psig or less. SoCalGas' system ends at the outlet of the meter. The pipes that connect the meter to customer gas appliances and equipment's burner tip are typically referred to as the "house lines" and are not owned or operated by SoCalGas.

What SoCalGas Does to Protect You

SoCalGas is responsible for the inspection of all its natural gas pipelines. The CPUC conducts audits of the design, construction, maintenance and operation practices of SoCalGas to verify that SoCalGas is in compliance with state and federal laws. SoCalGas maintains and operates its pipelines in accordance with the safety regulations, including implementation of the following measures:

- **Distinctive Gas Odor***: SoCalGas adds a distinctive odor to natural gas to help alert you to gas. The odor level is monitored at least monthly at representative locations for verification of odorization adequacy.
- **Leak Surveys**: SoCalGas conducts leak surveys of its pipelines, typically using combustible gas detectors, at specified frequencies. Leaks identified posing the highest potential of risk are prioritized, continuously monitored and repaired promptly.
- **Pipeline Patrols**: Pipeline patrols are performed on an annual or twice a year basis, depending on the size of the facility, to look for indications of pipeline leaks, missing pipeline markers, construction activity and other factors that may threaten the pipeline.
- **Exterior Corrosion Control**: External corrosion of pipelines is controlled by coating the pipe and by cathodic protection. Pipeline coatings prevent corrosive environments from coming into contact with the surface of the pipeline. Cathodic protection systems protect the steel should any voids in the coating exist. Cathodic protection is a technology that uses direct electrical current to counteract the normal external corrosion of a metal pipeline. Cathodically-protected pipe is monitored on an annual basis to verify that the cathodic protection system is functioning properly. Buried steel pipelines installed prior to July 31, 1971 that are not cathodically protected are surveyed for leaks at a greater frequency. Piping exposed to the atmosphere is inspected for corrosion at least once every three years.
- **Internal Corrosion Control**: SoCalGas manages the quality of the gas in its system and the systems' operation to prevent internal corrosion by monitoring on an annual basis.
- **Valve Inspection**: Valves critical to the isolation of a pipeline segment are inspected once each calendar year and serviced for valve casing leak detection, proper valve identification, adequate lubrication and valve operation.
- **Underground Vaults**: Once a year, SoCalGas performs routine maintenance and inspection on all underground vaults within the service area, which typically contain pressure-regulating or pressure-limiting equipment. Maintenance and inspection include proper operation of ventilation equipment, structural conditions, and correction of water presence, trash or other foreign substances.
- **Pipeline Crossings**: SoCalGas occasionally must design its gas piping system to cross over obstacles rather than go underneath them—typically freeways, highways, rivers, and drainage channels. Regardless of the crossing type, routine inspection and maintenance of all crossings are performed at least once every three years.

- **Pressure-Relief Devices:** Pressure-relief devices at pressure-limiting stations and pressure-regulating stations must have sufficient capacity to protect the facilities to which they are connected. Each pressure-limiting station, relief device (except rupture discs), signaling device, and pressure-regulating station and its equipment must be inspected once per year.
- **High-Consequence Areas:** As part of the Transmission Integrity Management Program instituted in December 2004, SoCalGas is on schedule to assess high consequence area pipelines, and full assessment will be completed by December 2012. A high consequence area is generally an area within a specified distance of a pipeline that has 20 or more buildings intended for human occupancy or an identified site, such as beaches, playgrounds and recreational facilities. Part of this assessment includes providing provisions to remediate conditions found, as well as record keeping and reporting.
- **Threats Assessment:** SoCalGas Distribution Integrity Management Program Plan is under development and will focus on information relative to the consideration of the threats to each gas distribution pipeline as well as measures designed to reduce the likelihood and consequences of pipeline failures.
- **Sewer Lateral Inspections:** In 2010, SoCalGas launched a comprehensive program to identify locations where a natural gas pipeline may have crossed through a sewer line during installation using trenchless technology. As we identify such locations, we will inspect the gas line, relocate the gas line and repair any damage to the sewer line where the pipe intersection has occurred. To learn more about SoCalGas' sewer lateral inspection safety program, please visit socalgas.com (search "GAS WARNING").
- **Customer Communications:** Many audiences receive SoCalGas communications, including: customers, excavators and land developers, public officials, colleges, school districts, city and county managers, emergency officials, residents and places of congregation along transmission lines, residents within the distribution service territory, and residents near compressor stations and underground natural gas storage fields. Frequency of communications to each audience ranges from twice a year to every three years. Customers and other audiences can visit socalgas.com (search "SAFETY") for additional information.

SoCalGas' Commitment

Customers can rest comfortably knowing that the integrity of the pipeline systems that bring natural gas to their homes or businesses is under careful, periodic surveillance by SoCalGas to protect the safety of its customers and the public.

SoCalGas is doing its part to ensure the integrity of pipelines and will respond quickly to address issues that are identified during regular inspections, surveys, maintenance and patrols.

The Role of Customers

Customers play an important role in this process—by helping to prevent pipeline damage, being able to recognize the signs of a gas leak, and knowing what to do in the event of a gas leak. For example, if you're planning to build a major development or just landscaping your yard, regardless of the size or scope of your project, use extra caution and protect your safety and the safety of those around you by calling **Underground Service Alert (USA) at 811**, at least two business days prior to excavating. To learn more about USA services, visit: <http://socalgas.com/safety/dig-alert.shtml>.

Using your sense of sight, hearing and smell, along with any of the following signs, may alert you to the presence of a gas leak:



Look:

- A damaged connection to a gas appliance.
- Dirt or water being blown in the air.
- Dead or dying vegetation (in an otherwise moist area) over or near pipeline areas.
- A fire or explosion near a pipeline.
- Exposed pipeline after an earthquake, fire, flood or other disaster.



Listen:

- An unusual sound, such as a hissing, whistling or roaring sound near a gas line.



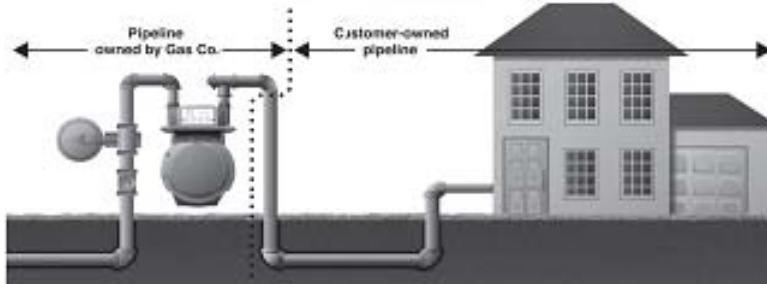
Smell:

- The distinctive odor* of natural gas.

* Some people may not be able to smell the odor because they have a diminished sense of smell, olfactory fatigue (normal, temporary inability to distinguish an odor after prolonged exposure to it) or because the odor is being masked or hidden by other odors that are present, such as cooking, damp, musty or chemical odors. In addition, certain conditions in pipe and soil can cause odor fade — the loss of odorant so that it is not detectable by smell.

If you become aware of a natural gas leak, remain calm, and don't light a match, candle, or cigarette. Also, don't operate any electrical devices, including light switches, or other devices which could cause a spark. Immediately evacuate the area and, from a safe location, contact SoCalGas at **1-800-427-2200**, 24 hours a day, seven days a week; or call **911**. There are approximately 5,000 employees who are trained and ready to respond to incidents that occur throughout the service territory. To learn how to detect a natural gas leak or what to do if you suspect a leak, visit socalgas.com (search "**SAFETY**")

You can avoid hazards by maintaining your own gas lines on your side of the meter.



Such customer-owned gas lines include all piping that goes:

- From your gas meter to the equipment on your property.
- From a curbside gas meter to the facility (when the meter is not right beside the facility).
- From your meter underground to a building or other gas appliances.

Not maintaining gas pipelines could result in potential hazards due to corrosion and leakage. To properly maintain your gas lines, you should have them periodically inspected to identify unsafe conditions, including corrosion (if the pipe is steel or other metal) and leaks, and repair any unsafe conditions immediately. A licensed, qualified professional, such as a plumbing or heating contractor, can assist you in finding, inspecting and repairing your buried gas lines.