Southern California Gas Company

A Sempra Energy utility®

NATURAL GAS SAFETY

Southern California Gas Company (SoCalGas®) has been providing safe, reliable natural gas service for more than 140 years. Today, the company serves more than 20.9 million consumers throughout Central and Southern California.

Characteristics of Natural Gas

Natural gas was formed millions of years ago through the decomposition of plants and animals. Found more than a mile beneath the earth's surface in porous rock, natural gas is composed mostly of non-reactive methane, but may also contain trace amounts of other gases, including ethane, propane and butane. Before being placed in pipelines to be shipped from the producing region, it is processed to meet quality specifications.

Natural gas has a number of unique characteristics:

- **Odorless –** Natural gas is virtually odorless in its pure state. For leak detection purposes, an odorant is added that can be smelled in concentrations as low as one percent.
- **Non-toxic –** Natural gas is non-toxic and creates no hazard when inhaled in limited quantities; however, if large quantities of natural gas is allowed to displace air, lack of oxygen may result in suffocation.
- **Lighter than air –** Natural gas is lighter than air and will dissipate rapidly if it escapes into the atmosphere. This is in contrast to liquid petroleum gases, such as propane, which are heavier than air and, when allowed to escape, will flow downward and may pool in low areas.
- **Clean burning –** Natural gas is the cleanest burning fossil fuel, makes it a highly desirable fuel for many applications, particularly in regions with strict air emissions requirements. When it burns, natural gas primarily produces carbon dioxide, water vapor and heat.
- **Flammability limits –** Natural gas and air must be mixed in the proper proportions in order to burn. The proportions of natural gas to air that must be present for natural gas to burn are known as the lower and upper flammable limits. Natural gas supplied by SoCalGas has lower and upper limits of approximately four and a half percent and fifteen percent. Therefore, a fire or explosion would not necessarily occur simply because natural gas is present.

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Learn the basics of a natural gas leak

How to recognize a natural gas leak

It's important to know that natural gas is flammable and a simple spark can serve as an ignition source. Using your senses of sight, hearing or smell, along with any of the following signs, may alert you to the presence of a natural gas leak.

Look

- A damaged connection to a natural 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 natural gas pipeline

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.

What to do if you suspect a natural gas leak or pipeline damage

If you suspect a natural gas leak, follow these important steps:

- **REMAIN CALM.**
- Don't light a match, candle or cigarette.
- Don't turn electrical appliances or lights on or off or use any device that could cause a spark.
- Immediately evacuate the area and, from a safe location, call SoCalGas at **1-800-427-2200** 24 hours a day, seven days a week; or call **911.**

For additional safety information, visit **socalgas.com** (search "*SAFETY*").

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