

Natural Gas

EARTHQUAKE

*A public service safety message from
Cascade Natural Gas Corporation*



news

Natural gas is one of the safest, most reliable fuels available

We at Cascade Natural Gas want you to know how to use natural gas safely. We encourage everyone in your household to learn how to safely operate and maintain your natural gas appliances. If you have any questions or need help, experienced Cascade Natural Gas employees can assist you.

Earthquakes are one of the most powerful forces of nature and may affect natural gas service, so it is important for you to know what to do before and after an earthquake. In this special edition of Safety News you will find important information about preparing your natural gas appliances for an earthquake. You also will discover what to look for and what precautions to take with your natural gas service following an earthquake. Please read this issue and share it with members of your household.

Properties of natural gas

Natural gas is non-toxic and odorless. Natural gas companies inject a sulfur-based, non-toxic odorant that smells like rotten eggs into the gas so it is easily detectable at very low concentrations. Natural gas also has a very narrow combustion range. This means that it will only ignite or burn when the natural gas/air concentration is between 4 and 15 percent natural gas in the air. Concentrations outside this range will not burn. Natural gas also is lighter than air, so if natural gas escapes from a pipeline, it rises harmlessly into the atmosphere.

Natural gas is delivered safely

Natural gas is delivered to your home from natural gas wells in the United States and Canada through a network of underground pipelines. This system delivers natural gas safely and efficiently by using a combination of compressor stations, valves and regulators. Pipeline systems are monitored around the clock to detect major pressure fluctuations and can be shut down either remotely or manually.

The major pipelines deliver natural gas to gate stations near cities and towns where distribution companies, like Cascade, deliver it to your home at lower pressures. Just like the major transmission lines, the systems within urban areas feature a series of regulator stations and valves. Every home and business has a meter, which measures the amount of gas delivered, and a regulator, which ensures that pressure remains constant and at a safe level.

Know how to identify natural gas leaks

Major earthquakes will cause the ground to shake violently and may affect the underground pipeline system. It also may affect the integrity of the pipes in your home. Over the past several decades, the use of polyethylene pipe and new welding techniques has helped make pipelines more resilient to earthquake damage. However, damage and leaks may still happen, so it is very important that you know what natural gas smells like. The company annually delivers a "scratch and sniff" brochure to every one of its customers so they can identify the odor.

The important stuff

The most common damage to gas lines inside homes is caused by water heaters tipping over. Yours should be strapped to the studs of the adjacent wall to prevent this from happening. After an earthquake, unless you smell gas inside your home, do not turn off your gas. If you turn off your meter needlessly, it may be days before the gas company is able to restore your natural gas service. It is very important that if you have turned off your natural gas meter, you leave it off until gas company officials arrive to safely restore service to your home.

If you smell natural gas inside your home at any time, your personal safety comes first. First, open as many windows and doors as you can on your way out of your home. Do not use your telephone, including cellular phones, or turn any electrical switches on or off. Evacuate your home and go to a neighbor's home to call the gas company or the fire department if you cannot reach Cascade immediately. At this time, you may choose to turn off your natural gas meter.

Shutting off your gas

If you need to have your gas service turned off, call us and we will do it for you. However, should a situation arise where you need to turn off your gas supply immediately, please follow this simple procedure:

- Locate the shutoff valve on the riser pipe (the pipe running from the ground to your meter). You will need a crescent or pipe wrench to turn the valve.
- When the valve head is parallel to the riser pipe, it is in the ON position (see illustration).
- Turn the valve head crosswise to the pipe (one-quarter turn) and it will be in the OFF position.
- There also are natural gas shutoff valves on the line fueling individual gas appliances.

WHAT TO DO IN CASE OF AN EARTHQUAKE

If there is an earthquake and you believe you must shut off your gas service, follow the instructions below. However, **ONCE THE GAS IS OFF, LEAVE IT OFF.** Only turn off your gas if you smell or hear natural gas leaking. In the event of a major emergency, increased work volumes may cause service delays. It could be days before a service mechanic can be scheduled to get to your home and restore service. Such delays can be uncomfortable during cold weather.

Take a few simple precautions:

1. Know where your gas meter is located and keep a 10- or 12-inch adjustable wrench with your emergency supplies, or next to your gas valve.
2. Contact your area building department or permitting agency for local requirements on properly strapping or securing your water heater.
3. Replace any semi-rigid aluminum or copper gas tubing with approved flexible metal appliance connector.
4. Use metal plumbers tape to secure your natural gas water heater to studs in the wall, so it won't fall over.
5. Move flammable material away from any natural gas appliance.
6. Secure appliances and tall furniture to walls. Appliances could move and rupture gas or electrical lines.
7. After an earthquake, check to be sure nothing flammable has fallen or spilled near a natural gas appliance. If you detect a strong natural gas odor or hear a strong hiss of natural gas, follow the instructions on the reverse side to shut off your gas.

TIP: If water supply is cut off from your home, drinking water is still available in your water heater, toilet tank(s), in-house plumbing, and melted ice cubes. Use a hose to obtain drinking water from your water heater's drain valve.

After an Earthquake

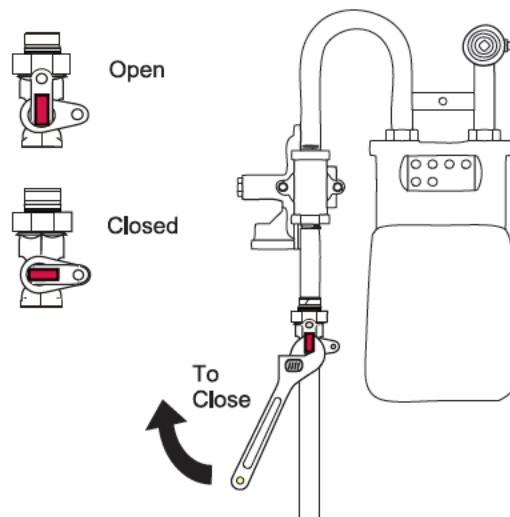
DO NOT turn off your meter unless you smell gas or hear gas leaking. (See "Detecting a Natural Gas Leak.")

Check your water heater and furnace vents. If the venting system becomes separated during an earthquake, it could leak hazardous fumes into your home. Signs of an improperly vented appliance may include moisture on the inside of windows or an unusual odor when the appliance is in operation.

For safety, a shut-off valve should be installed at every gas appliance. If a leak occurs at a specific appliance, the valve will permit you to turn off the gas at the appliance rather than shutting off all gas service at the meter.

WARNING: ONCE THE GAS IS OFF, LEAVE IT OFF!

Call Cascade Natural Gas at 1-888-522-1130 when you are ready for the gas to be turned on. A qualified service mechanic will check your system, restore your service and relight your appliances.



Use a long-handle wrench to turn the valve one-quarter turn so that the lever is crosswise to the pipe (see diagram).

Detecting natural gas leaks

In its natural state, natural gas is odorless and colorless. So that it can be detected easily, Cascade injects an odorant into the gas before it goes into the company's distribution system. The odorant is so highly concentrated that even the smallest amount of natural gas can be detected.

Any odor of natural gas inside your home might indicate a leak. Here are some steps to take if a natural gas leak is detected:

- EVACUATE all persons from the building.
- CALL Cascade Natural Gas from a neighbor's phone or a cell phone away from the building.
- DON'T use your telephone. This includes cellular phones and all types of portable communication and electronic devices that have a battery. These can spark and create a source of ignition.
- DON'T light matches or create any other source of ignition.
- DON'T turn a light on or off, or operate ANY electrical switches. This could create a source of ignition. The sparking could ignite the gas.

If the odor of escaping gas is strong inside or outside your home, or if the flow of gas from broken or disconnected gas lines can be heard or a break seen, follow the steps listed above.

If the leaking gas ignites, do not attempt to put out the flames. Call the fire department and then Cascade Natural Gas.



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