Natural gas safety

What is natural gas?

Natural gas is 96 percent methane, a natural compound formed as plants, trees, and other organic matter break down. While natural gas is combustible, it ignites only within a narrow range—between a 4 and 15 percent gas-in-air mixture. In smaller or greater concentrations, it will not burn. The exhaust from a properly working natural gas appliance is essentially carbon dioxide and water vapor—the same substances released when we exhale.

Clean-burning natural gas is odorless, colorless, and non-toxic in its natural state. A chemical called mercaptan is added to natural gas to give it the odor of sulfur or “rotten eggs” so even the smallest leak can be detected. Since natural gas is lighter than air, if it escapes into the air, it dissipates quickly.

Things to know about natural gas safety

When using any energy source, it is wise to be aware of and follow certain precautions to keep yourself and those around you safe. Here are some of the things you should know to safely obtain gas service and use it safely once it has been established in your structure.

Call 811 before you dig

Before any digging project, contact the 811 “Call before you dig” hotline two business days before digging. The “Call before you dig” law requires anyone digging into the ground to call and have underground utilities located to avoid potential hazards with striking or digging up utility lines.

The color codes the locator will use to identify utilities are:

<table>
<thead>
<tr>
<th>Color</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Proposed excavation</td>
</tr>
<tr>
<td>Pink</td>
<td>Temporary survey markings</td>
</tr>
<tr>
<td>Red</td>
<td>Electric power lines, cables, conduit, and lighting cables</td>
</tr>
<tr>
<td>Yellow</td>
<td>Gas, oil, steam, petroleum, or gaseous materials</td>
</tr>
<tr>
<td>Orange</td>
<td>Communication, alarm or signal lines, cables, or conduit</td>
</tr>
<tr>
<td>Blue</td>
<td>Potable water</td>
</tr>
<tr>
<td>Purple</td>
<td>Reclaimed water, irrigation, and slurry lines</td>
</tr>
<tr>
<td>Green</td>
<td>Sewers and drain lines</td>
</tr>
</tbody>
</table>

NOTE: Use white paint to mark the area within which you want utility locations.

Once all utilities are located:

- Do not dig with machinery closer than 24 inches from the locate marks.
- Hand dig to expose all utilities to be crossed.
What to do if you suspect a natural gas leak

If you smell natural gas

- Leave the area immediately.
- Do not turn any electric switches on/off or use other electrically operated devices that could cause a spark.
- Do not smoke. Do not light a match or use a lighter or do anything that might create a spark.
- Use a telephone outside the area and call 911 or call PSE, 24 hours a day, at 1-888-225-5773.
- For emergencies, call 911.

Using your nose is not the only way to detect a natural gas leak. Blowing dirt, bubbles rising in a puddle, or a hissing sound may indicate a leak. If you notice any signs of a natural gas leak, call immediately.

Gas shutoff

Under normal circumstances, there is no reason to shut off your natural gas service.

In the event that you need to turn off your gas service, follow these simple steps:

1. Locate your main gas service shutoff valve. It is usually the first fitting on the natural gas supply pipe coming out of the ground next to the meter.
2. With a wrench, turn the lever in either direction until it is crosswise to the pipe.
3. Once the gas is turned off, leave it off. Do not attempt to turn it on yourself.
4. Call PSE at 1-888-225-5773 and we will turn it back on, check the system, and relight your appliances.
Improper electrical grounding

Natural gas risers, up to and including the meter set, shall not be used as a grounding electrode. An electrical ground connection to a natural gas riser could result in a hazardous condition and can compromise PSE’s Corrosion Protection System.

Underground fuel line piping: customer responsibilities

PSE regularly inspects the underground natural gas pipelines in the street and to your meter to make sure they are operating properly and safely. If you have buried piping on your property to a pool, hot tub, natural gas barbecue, or detached building, that piping is not maintained by PSE, with a few exceptions. If not maintained, buried piping may leak or corrode. It should be periodically inspected and repaired by a licensed plumbing contractor. If you plan to excavate near your buried piping, it should be located and marked by the contractor in advance and the excavation done by hand.
What to do in a non-emergency situation

If you need gas service to be shut off for a temporary, non-emergency situation, shut off service at the fuel-line valve located near the particular appliance.

What is carbon monoxide?

Carbon monoxide (CO) is an odorless, tasteless, and invisible gas that can build up when any fuel-burning equipment—an automobile, fireplace, natural gas or oil furnace, wood stove, propane heater, charcoal grill, or kerosene heater—has insufficient air to burn the fuel completely. Carbon monoxide exposure can be dangerous.

Safety precautions

Here are suggestions to guard against carbon monoxide exposure in any structure:

- Use only fuel-burning equipment inside the structure that is designed to operate indoors.
- Vented gas equipment must vent to the outside according to the manufacturer’s specifications.
- Make sure fuel-burning equipment is maintained and operated safely and properly.
- Never run a charcoal grill, an automobile engine, lawn mower, portable generator, or any combustion engine in an enclosed space.
- Keep flues and chimneys free of debris and clear of soot buildup.
- Consider the installation of a carbon monoxide detector, particularly near sleeping areas in a structure.

Know the early symptoms of carbon monoxide poisoning

If you think someone is suffering from carbon monoxide poisoning, move the person outside to fresh air immediately and seek medical help.

Early symptoms include:

- Dizziness
- Flu-like symptoms
- Weakness
- Nausea and vomiting
- Partial loss of muscular control
- Drowsiness