



**Washington
Gas**
A WGL Company

THE NATURAL
ENERGY ANSWER



NATURAL GAS 101

Resources, Safety Tips and
Emergency Information



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WHAT IS NATURAL GAS?

Natural gas was formed deep underground millions of years ago. Natural gas is clean energy, domestically produced and in abundant supply. More than 177 million Americans use natural gas to heat their businesses and homes, warm their water and cook their food.

In its natural state, natural gas is odorless, colorless, tasteless and non-toxic. In order for natural gas to be detected, we add an odorant called mercaptan that smells like sulfur or rotten eggs.



Did you know that natural gas is odorized so that it is readily detectable by smell at a concentration of 0.5% gas in air?

WHAT ARE THE BENEFITS OF NATURAL GAS?

Natural gas is the cleanest fossil energy source. In addition to substantial reductions in carbon emissions, estimates show that our nation has enough natural gas to meet our diverse energy needs for more than 100 years.

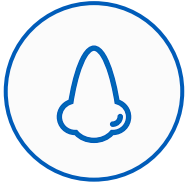
Low domestic natural gas prices have led to savings of almost \$50 billion over the past four years for customers who have used this clean energy source for heating, cooking and drying clothes. Due to the low cost of natural gas, our customers' bills are roughly 35 percent lower than they were 10 years ago.



According to the Center for Climate and Energy Solutions, natural gas is now the largest source of U.S. electric power generation, helping reduce U.S. greenhouse gas emissions to mid-1990 levels.

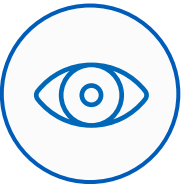
HOW TO TELL IF THERE MIGHT BE A GAS LEAK?

The following can help determine if there could be a gas leak:



SMELL

The most reliable sign of a natural gas leak is smell. Washington Gas adds an odorant called mercaptan to create the distinctive smell of sulfur or rotten eggs.



SIGHT

Unexplained, random dead patch of lawn or vegetation in an otherwise green area of lawn or vegetation, unnatural bubbles in puddles and waterways (pond, creek, lake) or dirt being thrown in the air.



HEARING

A hissing sound or blowing noises, typically accompanied by a gas odor.



WHAT SHOULD I DO IF I THINK I SMELL NATURAL GAS?

While not all suspected gas odors are the result of an actual gas leak, this can only be determined by qualified personnel. If a person smells gas or hears the hissing of escaping gas, inside or outside a building:

DO

DO leave the area, leaving doors and windows open to ventilate if possible.

DO move to a safe location and call 911 and then call the Washington Gas Emergency Leak Line at 703-750-1400 (or 1-800-752-7520).

DON'T

DON'T smoke, or light a match, candle or other flame.

DON'T turn electrical appliances or lights on or off, operate motorized equipment or vehicles, or use any device that could cause a spark or source of ignition, including telephones and cell phones.



DID YOU KNOW that Washington Gas works closely with first responders and regularly trains them at “Pipetown”, our state-of-the-art training facility that provides crews with hands-on simulations of a variety of emergency scenarios?

WHAT HAPPENS WHEN SOMEONE REPORTS A SMELL OF GAS?

When the smell of natural gas is reported, Washington Gas dispatches trained and qualified technicians **24 hours a day, 7 days a week** to investigate gas odors complaints and will not leave the site until the area is deemed safe.

WHAT DOES WASHINGTON GAS DO WHEN IT RESPONDS TO INVESTIGATE A GAS ODOR COMPLAINT?

Regulations and standards state whether our crews repair the leak immediately or follow up with the repair at a later time. Here's a look at the typical process:

1. DETERMINE IF THERE IS A LEAK

Through the use of natural gas detection equipment, a technician will check the area to investigate for indications of natural gas.

2. LOCATE AND ASSESS

If gas is detected, the technician will continue their investigation in order to locate the area of the leak and where gas may be present. Using this information and other factors, the technician will determine if the leak poses a hazard. The technician will not leave until the area has been determined to be safe.

3. RESPOND

Safety is our top priority. If a leak poses a potential hazard, the technician will make sure the area is safe, and Washington Gas will conduct immediate repairs. Leaks determined to be non-hazardous will be scheduled for repair at a later date.





HOW IS A NATURAL GAS LEAK ASSESSED?

Because safety is our number one priority, every odor complaint is treated by Washington Gas with urgency.

Strictly adhering to federal guidelines, Washington Gas thoroughly evaluates, investigates and assesses all reported gas leaks, which typically fit into the following categories: non-hazardous and hazardous.

NON-HAZARDOUS: After evaluation, a leak that is determined to be non-hazardous will be monitored according to an appropriate schedule defined by Washington Gas until repaired. In between scheduled monitoring, the leak will be subject to reassessment pursuant to any additional complaints.

HAZARDOUS: After evaluation, a leak that is determined to be an immediate hazard to persons or property will be immediately repaired or continuously monitored by highly trained onsite personnel until it can be repaired.

Federal requirements mandate that some non-hazardous leaks must be rechecked within six months and fixed within a year, but Washington Gas routinely completes these repairs more quickly.



Washington Gas responds to all reported fires where gas facilities are located, whether gas is a factor or not, in order to assist local fire departments if they require help.

DOES WASHINGTON GAS HAVE TO SHUT OFF THE GAS TO REPAIR A LEAK?

Many leaks are repaired safely without shutting off the gas. If required to maintain safety to the public and our employees, Washington Gas will shut off the gas. When safety permits, Washington Gas plans any shut off to minimize disruption to our customers. The most common gas shut off methods are through using the many valves we have in the system, or in some cases simply squeezing off the pipe. Techniques include:

- **VALVES**

Use of a series of valves to isolate the section of pipe being repaired.

- **SQUEEZE OFF**

Using a squeeze off tool to shut-off gas by ‘pinching’ or squeezing the polyethylene pipelines until gas flow stops. Many times this is done in conjunction with a valve to limit the amount of pipe and customers affected by the shutdown.

Washington Gas permanently repairs all leaks. If a permanent repair is not required immediately, a temporary repair is made until a permanent repair — or replacement — is scheduled. If repairs require the interruption of gas service, that service is only turned back on when the repair is complete. After restoration of service, customers’ appliances are relit by Washington Gas personnel or one of its contractors.

Repair procedures are in compliance with federal and state regulatory requirements and industry standards.



In 2017, **more than 99%** of Washington Gas customers experienced no unplanned outage of service.

WHAT ARE COMMON CAUSES OF DAMAGE TO NATURAL GAS PIPELINES THAT LEAD TO GAS LEAKS OR EMERGENCIES?

One of the leading causes of gas leak emergencies are damages to the underground gas lines by individuals and contractors performing excavation work, including digging, boring and directional drilling. We often refer to this kind of damage as a “third-party strike.”

The majority of these incidents are the result of not following the proper damage prevention protocols as established by the “Call Before You Dig” program, 811. Anyone digging should call 811 at least **two full working days** — excluding weekends and holidays — **before** they are scheduled to begin any type of digging to report where they are planning to dig and what type of work they will be doing. Utility companies who may have facilities in the area of the dig site will be notified about the potential excavation. Each affected utility company will send a locator to mark the approximate location of the nearby underground utility lines. This service is free.

Using the 811 service properly helps to significantly reduce the risk of damage to underground utility infrastructure.

Pipelines can be damaged in a number of ways, including:



BACKHOE

And other excavation equipment



GARDENING TOOLS

Such as shovels



AUGER

Used by a construction crew



Know what's below.
Call before you dig

ALWAYS CALL 811 BEFORE YOU DIG

You must call 811 at least two full working days before you dig and you should not begin digging until the lines have been marked or confirmed as “no conflict.”

HOW DOES WASHINGTON GAS MAINTAIN THE SAFETY AND RELIABILITY OF ITS SYSTEM?



At Washington Gas, providing safe and reliable service to our customers is a priority. In fiscal year 2017, more than 99% of our customers experienced no unplanned outage of service.

We meet or exceed regulatory requirements in inspections and survey of our pipeline systems by:

- Completing a 100% leak survey of the entire underground system over a three-year period by qualified personnel who use sensitive and calibrated gas detecting equipment to identify and address leak indications.
- Conducting additional annual leak surveys over certain segments of the system in particular areas (such as business districts).
- Performing special surveys to identify damage and ensure system safety following extraordinary events that could potentially impact the system, such as earthquakes.
- Collecting and analyzing operating data to better direct maintenance and pipe replacement activities.
- Installing, inspecting and maintaining cathodic protection systems to guard the system's steel pipelines from corrosion.

While performing their normal field activities, Washington Gas personnel and its contractors are trained and qualified to recognize and properly address any abnormal operating conditions of the pipeline system.



Washington Gas routinely subjects its distribution and transmission lines to rigorous inspection, maintenance and oversight. We survey our entire system every 3 years.

WHAT ARE IMPORTANT GAS APPLIANCE SAFETY TIPS?

Most natural gas emergencies happen because of appliances that become unsafe. Follow the tips below to keep your appliances safe and make sure to have a licensed contractor inspect your appliances every year using our Appliance Safety Checklist.

For more appliance safety tips, please visit our [Appliance Safety](#) page.

1

Never use your oven or range-top burner to heat your home, even during winter

2

Always have a professional re-light your natural gas appliances

3

Use a licensed contractor to install, repair or replace natural gas appliances

4

Turn off range-top burners when you're not using them

5

Never cover the holes in the bottom of your oven with foil or other materials

6

Make sure your natural gas dryer is venting correctly and free of lint and dust

7

Always light a gas grill outdoors and with the top open

8

Inspect and replace air filters monthly



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Washington Gas dispatches trained and qualified technicians 24 hours a day, 7 days a week to address natural gas leaks and other gas emergencies.

HOW WE RESPOND TO ODOR COMPLAINTS

DETERMINE IF THERE IS A LEAK:

A technician checks the area — using appropriate equipment — for signs of natural gas.

LOCATE & ASSESS

A technician locates the area of the leak and determines if the leak poses a hazard. They will not leave the area until it has been determined to be safe.

RESPOND:

If a leak poses a potential hazard, it will be immediately repaired. Non-hazardous leaks may be scheduled for repair at a later date.

CONTACT NUMBERS

Members of the media should call the Media Line 24 hours a day, 7 days a week at (202) 624-6334.

For more safety resources, visit www.washingtongas.com/safety.

Customers should report odor complaints 24 hours a day, 7 days a week using the Washington Gas Emergency Leak Line: (703) 750-1400 OR (800) 752-7520.

For general customer inquiries, call Customer Service at (703) 750-1000.

