

Pipeline Safety In Your Environment

OUR PROGRAM

PIPELINE SAFETY FACTS

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DIG SAFETY

OUR PROGRAM

- ❑ **Safety: From Design to Delivery**
- ❑ **Safety Around the Clock**
- ❑ **Inspecting and Re-Inspecting**

Safety: From Design to Delivery:

Pipeline safety starts long before natural gas actually begins flowing through our pipes. It begins during the design phase, when we apply strict industry standards, research-based company policies and regulatory mandates to every aspect of a facility's development, from basic design to selection of materials, construction plans, operational plans and monitoring requirements.

Today's natural gas facilities benefit from numerous modern technologies and materials that have been developed and improved over the last 40 years. **The natural gas pipeline industry spends millions of dollars each year on research and improving pipeline safety.** The results are facilities that incorporate a wide array of innovative and highly effective features to ensure safety as well as efficiency.

Some of the safety measures we apply to our facilities include:

- ✓ **Welding:** Our pipelines are made of sections of steel pipe of varying diameter, strength and wall thickness, welded together in a manner to ensure integrity. The welded pipe joints are designed and installed to be stronger than the pipe itself. Before beginning, all welders on our projects must pass stringent qualification tests. All critical welds on the pipe are required to pass visual and other non-destructive tests before the pipeline is activated.
- ✓ **Proof testing:** Before being placed in operation, our pipelines are proof tested — pressurized to a level that far exceeds the stress the pipeline will ever operate under. This procedure ensures the strength and integrity of our pipelines before they are placed into active service of transporting natural gas.
- ✓ **Protection against corrosion:** Our steel pipelines are protected against corrosion in several ways. First, they are covered externally, and sometimes internally, with a protective coating. Second, a modern advancement in pipeline safety technology called cathodic protection uses a slight electrical current to ensure a pipeline's integrity. The small electric charge is harmless to the surrounding ecology.



The Environment



Individual Safety



Pipeline Safety

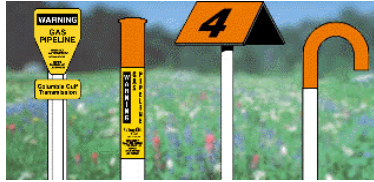
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- ✓ **Identification:** The natural gas industry has adopted a standard yellow marker to alert excavators and the public of the presence of an underground pipeline. Our pipelines are marked according to federal guidelines, and list our emergency telephone number for information or to alert us to any problems. Look for yellow or orange markers to signify a pipeline.



- ✓ **Commissioning:** Before operating the pipeline, all systems for providing power, communication, gas compression, transmission and monitoring are thoroughly tested and calibrated to make sure they work together safely and efficiently. Tests are conducted on all electrical, instrumentation, communications, and mechanical and computer equipment. The valves and meter stations that control and measure the flow of gas through the pipeline are also tested to ensure their operating integrity.
- ✓ **System Reliability:** Our pipelines are designed and constructed with safety and system reliability in mind. Isolation valves are installed in key locations throughout the pipeline system and the majority of our pipeline systems are looped. This allows us to control or isolate individual pipeline segments within the systems during maintenance or emergency periods, and provide as much uninterrupted service as possible to our customers.

Safety Around-the-Clock:

Once in operation, our facilities are kept under a constant watch — 24 hours a day, seven days a week — by the staff at our Energy Control Center. Their job is to make sure that a rapid response is available to any problems on the system.

Meanwhile, in communities along our pipelines, local operating teams oversee the day-to-day operations of our facilities. Following strict procedures and safety standards, our operating teams provide our local link to the community, often working closely with our facility neighbors and others in the community.

In particular, our operating teams are constantly on the alert for third-party excavators who may unknowingly dig near our pipelines. Damage by outside parties is the leading cause of damage to pipelines in the United States, and we work hard to protect our facilities. To help prevent outside damage, we conduct regular communications with contractors and others who might be working around the lines so that they understand precautions they should take. We also have an Excavation (Dig) Permit procedure which notify utilities and other underground facility operators before people begin excavating. Our operating teams also communicate with local community officials and emergency responders to discuss the nature of our facilities and our operations, as well as the cooperative steps to be taken in the event of a natural gas emergency.

Inspecting and Re-Inspecting:

Periodic inspections of our facilities help us detect potential problems before they become safety concerns. These inspections, many of which are prescribed by law, include detailed analysis of the underground corrosion protection systems along our pipelines, as well as aboveground surveys for detecting signs of leaks or other problems. In addition, regular patrols of our main pipeline rights of way help us spot changes or conditions that could potentially affect our pipelines.

All of these steps are in accordance with strict safety regulations prescribed by the [U.S. Department of Transportation](#) and overseen by the regulatory enforcement arm of the department's [Office of Pipeline Safety](#).

PIPELINE SAFETY FACTS

Natural gas provides 25 percent of the basic energy needs in the United States, but many consumers are unfamiliar with the pipeline industry that ships that natural gas. The 30 Interstate Natural Gas Association of America (INGAA) member companies that operate the 180,000-mile underground interstate natural gas pipeline system have been quietly, safely and reliably delivering natural gas to more than 175 million consumers all over North America for 100 years. The North American natural gas pipeline system is an energy highway that is the envy of the world.

Natural gas pipelines make it possible to heat homes and cook meals, for utilities to generate electricity and for American industry to do its work. [The Interstate Natural Gas Association of America](#) has developed the following answers to some frequently asked questions about the natural gas pipeline industry and its safety.

- ❑ **How does a natural gas pipeline operate?**
- ❑ **Why are pipelines regulated by the Department of Transportation and Florida Public Service Commission?**
- ❑ **Are natural gas pipelines safe?**
- ❑ **Why do you need to build new natural gas pipelines?**

How Does a Natural Gas Pipeline Operate?

Think of a natural gas pipeline as an energy highway. American pipelines transport natural gas from nearly 275,000 gas wells in various production areas of the country over hundreds or thousands of miles to customers in cities, towns and industrial facilities. The gas is compressed when it comes out of the wells, and this compression helps it move at about 15 miles per hour through the pipes. Because the friction of the gas against the pipes slows it down as it travels, pipeline companies operate compressor stations at intervals along their routes to compress the natural gas and help it move at a steady pace. The natural gas in a pipeline is roughly the same temperature as the earth around the pipeline, though the periodic compression can increase the temperature for a short distance. The gas moves relatively quietly on its journey through the pipeline system. Natural gas is delivered to local gas distribution companies (LDCs), which in turn distribute the gas to homes, businesses and factories. Pipelines also deliver gas to end-users, such as electric generators.

Why are pipelines regulated by the Department of Transportation and Florida Public Service Commission?

The United States Department of Transportation (DOT) regulates the interstate transport of goods and services, and oversees safety on the interstate natural gas pipeline industry through the Natural Gas Pipeline Safety Act of 1968. Shipping natural gas from the wellhead to consumers through the interstate pipeline system is a form of transportation.

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Are natural gas pipelines safe?

Yes. The companies that build and operate natural gas pipelines have created the safest mode of transportation today, surpassing highway, rail, air and water. National Transportation Safety Board (NTSB) statistics show the pipeline industry to be the safest in the country. The pipeline industry has extensive experience with use of redundant safety systems, round-the-clock monitoring and extensive inspection and maintenance to keep the pipelines operating in top condition. And pipeline operators coordinate their procedures with local authorities in case of emergencies.

Pipeline companies also engage in community awareness programs to educate residents about pipeline safety. The focus on pipeline safety education is on construction and excavation damage, the primary cause of pipeline accidents. To respond to this potential damage to their facilities, pipelines have developed One-Call, a 911-style program in which consumers and excavators can call to pinpoint the location and depth of pipelines and cables in their area before they excavate. The local number for the **EXCAVATION (DIG) PERMIT department is: Phone, (407) 560-6539 / Fax, (407) 560-6540.** The national number is 1-888-258-0808. See the dig safely website at www.digsafely.com.

Pipelines spend millions of dollars a year on research, facility inspection and testing, maintenance, emergency planning and public awareness. With hundreds of thousands of miles of pipeline already in the ground, it is inevitable that development of homes, businesses, schools and recreation areas will take place near existing pipeline sites. If an area is developed after a pipeline is built, the pipeline owner is required by law to upgrade its maintenance and safety practices. Homes and businesses are not permitted to be built on the pipeline right-of-way.

Why do you need to build new natural gas pipelines?

As the cleanest of all fossil fuels, natural gas is quickly becoming the fuel of choice for the future. It also is safe, inexpensive and easily available in many places around the United States. These qualities are helping to boost consumer demand, which at more than 22 trillion cubic feet (TCF) per year is an all-time high. The U.S. Energy Information Administration (EIA) estimates that demand for natural gas will reach 30 Tcf by 2010. This means that the natural gas pipeline industry must respond with more facilities to supply the additional demand for natural gas.

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YOUR NEIGHBORHOOD

While incidents are rare, it's important for everyone who lives and works near natural gas pipelines to know basic safety information. Here is some information for our neighbors in the community about our operations, how to identify a problem and what to do if a problem occurs.

- ❑ **How to Recognize a Natural Gas Pipeline Leak?**
- ❑ **What to Do and Not Do if You Suspect a Gas Pipeline Leak?**
- ❑ **Frequently Asked Questions about Pipeline Safety**
- ❑ **A Special Message for Those Who Perform Excavation Work**
- ❑ **A Special Message for Public Safety Officials**

How to Recognize a Natural Gas Pipeline Leak?

While leaks on interstate natural gas pipelines are rare, it is important to know how to recognize the signs of a leak if one were to occur in your area. *(Not necessarily will all these signs appear together)*



LOOK

- for dirt being blown or appearing to be thrown into the air
- for water bubbling or being blown into the air at a pond, creek, or river
- for fire coming from the ground or appearing to burn above the ground
- for dead or dying vegetation on or near a pipeline right-of-way in an otherwise green area
- for a dry spot in a moist field



LISTEN

- for a roaring, blowing, or hissing sound

SMELL

- for a gas or petroleum odor



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What **to Do** and **Not Do** if You Suspect a **Gas Pipeline Leak**

Here's What **TO DO**:



1. Turn off and abandon any motorized equipment you may be operating.
2. Leave the area quickly.
3. Warn others to stay away.
4. From a safe place, call the pipeline operator and your local fire or police department.

Here's What **NOT TO DO**:



Do Not use open flames or bring anything into the area that may spark ignition of the gas leak (telephones, flashlights, motor vehicles, electric or battery-operated tools, etc.).



Do Not attempt to operate pipeline valves.

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Frequently Asked Questions about Pipeline Safety

- **What if I smell gas inside my home or work area?**
- **What is Carbon Monoxide?**
- **Are pipelines safe?**
- **What is a pipeline marker?**
- **What is a pipeline right-of-way?**
- **Can I build or dig on a right-of-way?**

What if I smell gas inside my home or work area?

If you have gas service and you detect a natural gas odor coming from inside your home or work area, leave the area and from a safe place call your local gas company.

What is Carbon Monoxide?

Carbon monoxide is produced when burning any fuel incompletely, such as charcoal, gasoline or wood. Carbon monoxide is highly poisonous and has no odor, taste or color. If natural gas equipment is not maintained, adjusted and operated properly, it could produce carbon monoxide.

Your natural gas appliances should produce a clear, steady blue flame. If appliances exhibit an unusual behavior or produce a yellowish-color flame, they could need servicing. A trained professional should inspect appliances annually to insure safe operation.

Other Safety Tips

- Keep area surrounding your gas appliances clear from clutter or trash.
- Carbon monoxide detectors may be helpful in your home or business. But remember, a carbon monoxide detector should never be substituted for using equipment safely - which includes having your heating and cooking appliances inspected yearly by a trained professional.

For more information on Carbon Monoxide and it's affects, please visit

<http://www.carbonmonoxidekills.com/coinformation.htm> and

<http://www.cpsc.gov/cpsc/pub/pubs/466.html>

Are pipelines safe?

Natural gas pipelines are the nation's safest method of transporting energy, quietly delivering large volumes of the clean-burning fuel to local gas distribution companies, who ultimately carry the gas to homes and businesses. While our safety record is exceptional, it's important for everyone who lives and works near natural gas pipelines to know basic safety information.

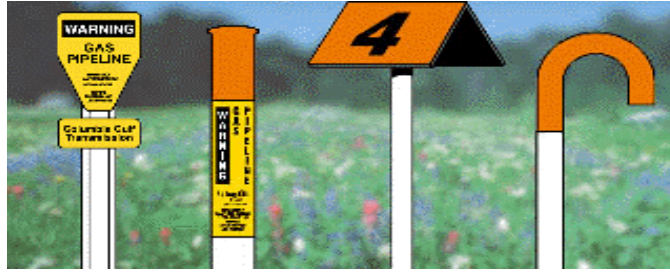
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What is a pipeline marker?



Since pipelines are buried underground, pipeline companies use line markers like those shown above to indicate the approximate location of a pipeline. The markers are placed where pipelines intersect streets, railroads, rivers and heavily congested areas. Markers identify the pipeline and show a 24-hour emergency telephone number.

Markers indicate the general, not exact, location of a pipeline. Markers do not indicate how deep the pipeline is buried. Nor do they necessarily indicate how many lines are in the area. And, pipelines do not necessarily follow a straight course between two markers. Never rely solely on the presence or absence of pipeline markers. Pipeline markers are important to public safety. It is a federal crime for any person to willfully deface, damage, remove, or destroy any pipeline sign or right-of-way marker required by federal law.

What is a pipeline right-of-way?

A pipeline right-of-way is the strip of land over a pipeline. A right-of-way agreement between pipeline companies and property owner is called an easement. Easements provide pipeline companies with permanent, limited interest to the land to enable us to operate, test, inspect, maintain and protect our pipelines. Although agreements may vary, pipeline companies rights-of-way generally extend 25 feet from each side of the pipeline unless specified otherwise.

Can I build or dig on a right-of-way?

Pipeline rights-of-way must be kept free from structures and other obstructions. If a pipeline crosses your property, please do not plant trees or high shrubs on the right-of-way. Also, do not dig, store, or place anything on or near the right-of-way without first having pipeline company personnel mark the pipeline, stake the right-of-way and explain the company's construction guidelines to you.

Pipeline company personnel regularly inspect their pipeline rights-of-way using air, foot and vehicle patrols. The inspectors look for potential danger to pipelines, such as construction activity, and check for signs of gas leaks.

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SPECIAL MESSAGE FOR THOSE WHO PERFORM EXCAVATION WORK

Dig-ins by people doing excavation, digging, grading or other earth-disturbing work is the most frequent cause of pipeline damage and failures. Whether you are planning to build a major development or just landscape your property, notify us early in your planning.

When notified in advance, we will stake the location of our pipelines and rights-of-way and explain our construction guidelines. This free service allows you to begin your project with the assurance that our pipelines will not be damaged and your safety will not be compromised.

Don't guess, call before digging

Never guess about where the pipeline is located. Always call and make sure you know. Contact the **EXCAVATION (DIG) PERMIT** department is: Phone, (407) 560-6539 / Fax, (407) 560-6540. at least 72 hours before you begin your project.



What if I dig and disturb a pipeline?

Whether or not you've notified us in advance, if you dig and hit or touch a pipeline, contact the Energy Control Monitoring Center immediately at: Routine: (407) 824-4990 Emergency: (407) 824-4185

A gouge, scrape, scratch, dent or crease to the pipe or coating may cause a future safety problem. It is imperative that we inspect and repair any damage, no matter how minor it appears.

A SPECIAL MESSAGE FOR PUBLIC SAFETY OFFICIALS

Suggested Emergency Action Procedures

As a public safety official, you must take whatever steps you deem necessary to safeguard the public in the event of a pipeline emergency. The following suggestions are offered as a guide:

- Notify the appropriate pipeline company. Report the type (leak, rupture, fire, other) and location of the emergency.
- Establish a safety zone around the emergency site and control access. This may include the evacuation of people within the safety zone. Be sure to allow gas company employees access to the safety zone and work with them to control the emergency.
- If gas is not burning, avoid doing anything that may ignite it.
- Be aware of wind direction and potential ignition sources.
- If gas is burning, control secondary fires, but do not attempt to put out a pipeline fire unless asked to do so by gas company personnel.
- Do not attempt to operate pipeline valves.
- Preserve the area for accident investigation.

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Pipeline Company Actions in an Emergency

In the event of a pipeline facility emergency, we will immediately work to control the situation. Our personnel will:

- Locate the site of the emergency and stop or reduce gas flow to the affected area.
- Notify appropriate public officials and work with them during the emergency.
- Repair the facility and restore service to customers.
- Investigate the cause of the incident.

If you would like to become familiar with facilities and operations in your jurisdiction, call or Natural Gas Operations Department at (407) 560-6050.

Dig Safely  **Protecting America's Lifelines**

America's network of underground facilities delivers vital resources to your home, your workplace, your community. Heat, light, water, and communications services all reach you through a network of oil and gas pipelines, telecommunications cables, and water lines. Critical services like air traffic control and local 911 emergency response also depend on this network.

This underground infrastructure is literally a lifeline -- and it is the safest, most reliable in the world. Keeping it that way is a responsibility we all share. Preventing excavation damage to this network is a top priority for the U.S. Department of Transportation's Office of Pipeline Safety (OPS). Working with facility operators, state and local governments, excavators, property owners, and concerned citizens, OPS and the pipeline industry have developed a comprehensive damage prevention program to protect underground facilities.

To prevent excavation damage to all utilities, including pipelines, all 50 states have instituted "One Call" Programs. The programs provide telephone numbers for anyone doing excavation to call before they begin. The One Call operator will notify underground facility operators of any planned excavation so that the company can flag the location of its facilities and assign personnel to be present during excavation, if necessary.

For more information, please contact your local **EXCAVATION (DIG) PERMIT department is: Phone, (407) 560-6539 / Fax, (407) 560-6540** or for global information visit www.digsafely.com.

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THE ENVIRONMENT

Conducting business in an environmentally conscious manner is not only good business; it is the right thing to do.

To fulfill our environmental commitment to customers, employees and the community, we conduct our operations in accordance with the following principles:

- Conduct business activities in a manner that protects the environment and the health and safety of our employees and the public.
- Promote environmental awareness and responsibility through training and other educational programs.
- Develop and maintain open lines of communication with environmental regulatory agencies, environmental organizations and concerned citizens.
- Incorporate environmental considerations in planning, purchasing and operating practices.
- Promote the use of clean, efficient natural gas, natural gas technologies and other environmentally clean energy sources as a solution to environmental and energy concerns.
- Comply with all environmental rules and regulations.

Environmental Benefits of Natural Gas

We are proud of the role natural gas itself plays in helping the environment. Using natural gas in place of other fuels can help ease a number of environmental concerns - greenhouse gas emissions, acid rain, smog, solid waste and water pollution. When natural gas is burned, it produces virtually no emissions of sulfur dioxide or particulate matter and far lower levels of "greenhouse" gases and nitrogen oxides than other sources of energy such as oil and coal. In addition, unlike the oil, coal and nuclear processes, the natural gas process produces virtually no solid waste and has much lower impact on water quality.

The inherent cleanliness of natural gas when compared with those other fuels, coupled with the high efficiency of natural gas equipment, means that substituting gas for the other fuels can help reduce the emission of the air pollutants that produce smog and acid rain and that could exacerbate the "greenhouse" effect.

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INDIVIDUAL SAFETY

Safety starts with individuals - dedicated people, supported by their company and coworkers, preventing injury and accidents in the workplace every day.

Through our Safety Team Committee initiatives, training programs and compliance standards, we continuously support our employees as they maintain a safe and healthy work environment.

Our employee safety mission is to create a SAFE culture that promotes employee safety and health at work, at home and in the community.

Through our pipeline safety initiatives, our commitment to individual safety also extends to the people who live and work near our facilities.

