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Natural Gas

What is it, why do we need it, and some safety tips

Natural gas is a colorless, odorless gas that is lighter than air. Natural gas is made up of hydrocarbon gases, primarily methane. Natural gas is found in rock formations deep below the earth's surface, and is withdrawn and transported to homes and businesses through an elaborate system of underground pipelines.

WHY DO WE USE NATURAL GAS?

Natural gas is the fuel of choice because it is:

- Efficient
- Clean-burning (emits few pollutants)
- Plentiful
- Safe

WHO USES NATURAL GAS?

The main groups of natural gas users are:

- Residential users use natural gas for furnaces, heaters, gas lighting, stoves, water heaters, clothes dryers, grills, generators and space heaters.
- Commercial users use natural gas in businesses such as restaurants, hotels, and hospitals.
- Industrial users use natural gas for heating processes and as fuel for generating steam.
- Electric Utilities use natural gas to generate electricity.
- Natural gas pipeline companies use natural gas as a fuel to run compressor units.

NATURAL GAS SAFETY PRECAUTIONS!

Natural Gas is colorless, odorless, lighter than air, and non-toxic. Breathing natural gas is not harmful as long as there is an adequate supply of fresh air to breathe along with it. Natural gas by itself will not burn, but with the proper mixture of gas and air combined with an ignition source combustion will occur. An odorant that smells like rotten eggs is added to natural gas so that it can be detected. The odor is a warning that natural gas may be present and, if ignited, could result in personal injury or property damage.

WHAT TO DO IF YOU SMELL NATURAL GAS IN YOUR HOME:

If the smell of gas is present inside your home or business (no matter how faint or strong)

DO NOT:

- Smoke or strike a match
- Operate any electrical switches or appliance controls
- Pull any plugs
- Use a flashlight or lighter
- Use the telephone or cell phone inside the building

THINGS TO DO:

If you smell a **FAINT ODOR** of natural gas **INSIDE YOUR HOME OR BUSINESS**, check to see if any appliances have been left on accidentally or if a pilot light has been extinguished. This situation could cause the faint odor of rotten eggs.

If the odor persists, **TAKE NO CHANCES**, get out of the house immediately, then call your gas company from a neighbor's home. The number for *Garden Plain* gas customers to call is 316-531-2321 (after hours 316-833-2594). If no one answers, immediately call **911**.

If a **STRONG OR PERSISTENT ODOR OF GAS** is present **IN YOUR HOME OR BUSINESS**, or if you hear a **HISSING SOUND** of escaping gas, follow these procedures:

- Get everyone out of the building immediately.
- Leave the door open.
- Use a neighbor's phone or cell phone outside of the building to call the numbers listed above.

WHAT TO DO IF YOU SMELL NATURAL GAS OUTSIDE:

Leaks from natural gas pipelines are extremely rare, however it is important that you know how to recognize the signs of a leak if one were to occur in your area. A strong odor, hissing sound, dirt blowing up from a hole, or bubbles coming up in standing water, are signs of a leak. Move away from and upwind of the suspected leak before calling. Do not light matches, smoke, use a cell phone or attempt to start any motor vehicle while in the area of a suspected gas leak.

UNDERGROUND GAS LINES ARE THE SAFEST MEANS OF TRANSPORTING GAS:



The companies that build and operate natural gas pipelines have created the safest mode of transportation today, surpassing highway, rail, air and water. The National Transportation Safety Board (NTSB) statistics show the pipeline industry to be the safest in the country in terms of fatalities per year. 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. Pipeline operators coordinate their procedures with local authorities in case of emergencies. Pipeline companies also engage in community awareness programs, such as this brochure, to educate residents about pipeline safety.

The primary cause of pipeline failure is due to 3rd party damage. This damage can be caused by striking underground facilities during excavation, or by driving over above ground facilities. Above ground facilities can be damaged by farming too close to them or hitting them with automobiles or even lawn mowers. Underground pipelines can also be damaged by "shorting out" the above ground facilities. Steel pipelines have a current placed on them through a method called Cathodic Protection. This current is generated either by anodes buried underground, or rectifiers that are mounted above ground. If a gas meter or other above ground gas facility, has something metal touching it, there is a possibility that the cathodic protection system could be shorted out, allowing the underground pipeline to corrode and eventually start leaking. It is very important that the above ground facilities never come into contact with foreign objects such as wire, old junk metal, or anything else that can conduct electricity. If you see this type of problem please remove the object that is touching the gas meter or other above ground gas facility.

Pipelines spend more than \$560 million a year on research, facility inspection and testing, maintenance, emergency planning and public awareness. With over 2.6 million 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. Because of the increased potential for underground facilities to be damaged by excavation for these developments, a 911-style program has been developed in which consumers and excavators can call to pinpoint the location and depth of pipelines and cables in their area before excavation. In Kansas this system is known as **Kansas One Call**. You can reach them by calling 811 or their web site at **www.call811.com**.

Call 811 before you dig



In the pictures above you can see that a backhoe snagged a 3/4" gas line. It was plain to see that the line was damaged at the dig site. What nobody could see was that the gas line was pulled apart underground at the building wall several hundred feet away. While they were repairing the leak at the excavation site, gas seeped into the building and it exploded. **If you expose or damage a gas line while digging, contact a gas representative immediately, or call 911 and report the incident.**

Did you know that even the simplest task of installing a mailbox, privacy fence, flagpole or storage building can pose a hazard to the safety of your community? Damage caused by excavating is the most common cause of pipeline incidents, and in most cases, this damage could have been prevented if contractors, construction companies and homeowners were aware of the location of underground utilities prior to digging. Placing a free "one call" request to have underground lines marked can save lives, and is as simple as calling or clicking to connect! You may dial 811 to reach Kansas One Call, or visit www.call811.com to submit an online request to have utilities marked before digging. Please refer to the information below to understand what you will need to know when calling Kansas One call, and the time-table for digging after you make the call. Calling Kansas One Call ensures that the Utilities Companies can locate & mark any underground facilities they have in the area. This is for your protection as well as theirs. If you have any questions please call Dwight Mollenkamp at 316-833-2594, or City Hall at 316-531-2321.

- ✓ **CALL BEFORE YOU DIG!**
- ✓ **WAIT the REQUIRED amount of time BEFORE DIGGING!**
- ✓ **RESPECT the MARKS!**
- ✓ **DIG with CARE!**

- ✓ You must provide a valid contact number for the operator to respond to your request.
- ✓ The locate ticket is valid for 15 calendar days after the scheduled excavation start date.
- ✓ Ticket should only describe the job site you expect to complete within 15 days.
- ✓ Updating tickets without a good reason for the repeat are not allowed.
- ✓ You may have to wait 5 working days after requesting locates if you request a meet-on-site (consider using white lines instead of a meet-on-site).
- ✓ The operator can require you to whitenline if the description is not clear.
- ✓ You may have to wait 5 working days after requesting locates if the operator requires you to whitenline.
- ✓ Emergency requests are **ONLY** allowed in the event of an emergency as defined by the statutes.
- ✓ If you damage an electric line or gas line and there is leaking gas or arcing electricity, you must call (911) and remain on site until first responders or the operator arrives.

INFORMATION CHART:

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
Mon	Date of the call - does not count.	1	2	ok							
Tue		Date of the call - does not count.	1	2	ok						
Wed			Date of the call - does not count.	1	2	ok					
Thu				Date of the call - does not count.	1		2	ok			
Fri					Date of the call - does not count.		1	2	ok		
Sat						Date of the call - does not count.	Date of the call - does not count.	1	2	ok	
Sun							Date of the call - does not count.	Date of the call - does not count.	1	2	ok



IF HE ONLY KNEW

If you damage a Garden Plain gas facility in any way, either above ground or below ground, call Dwight Mollenkamp at 316-833-2594 or 316-531-2321, if after hours call 316-648-8640. If no one can take your call, leave a message. Please be specific as to the location and type of damage. Also leave a number where you can be reached. If there is a resulting gas leak, call 911!

PIPELINE SAFETY

& RIGHT OF WAY PROTECTION

A right of way (ROW) is secured from a landowner, developer, utility or other government entity through an "easement agreement" which provides the right to cross or otherwise use someone else's land for a specified purpose. This agreement governs the activities permitted by both the landowner and the utility operator.

When discussing pipeline safety you will often hear the term "**right of way**" used when talking about easements. Not all right of ways are the same size, but the right of ways in the City are defined with specific sizes and boundaries. There are many factors that determine the width of a ROW, including the number of utilities located within the ROW, the size of the pipeline, and the wishes of the landowner, the City or the influences from state statutes and decisions made by regulatory agencies.

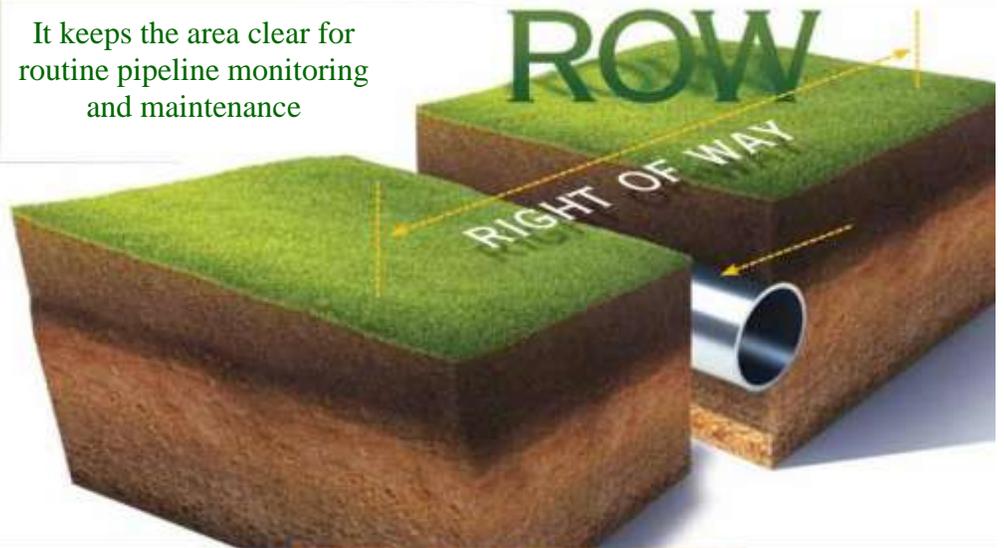
While exact terms vary, it is typical for an easement agreement to contain certain restrictions for the use of the ROW. "**Encroachment**" is a term that refers to the unauthorized use of a right of way in violation of the terms of the City Ordinance pertaining to right of ways.

Public safety is of the utmost importance to the City of Garden Plain. As part of ongoing maintenance programs, it is occasionally necessary for the City to trim or remove trees, shrubs and other structures located on both private and public property within the utility ROW. The City will do this to visually monitor and maintain access to the utilities in the right of way. This ensures the integrity of both the pipeline and the environment.

MANAGING AND PROTECTING THE RIGHT OF WAY IS KEY:

It provides easy access to the facility if an emergency situation occurs

It keeps the area clear for routine pipeline monitoring and maintenance



EXAMPLES

OF ROW ENCROACHMENT INCLUDE:

1. Building fences or other structures such as sheds or barns - either permanent or temporary
2. Pouring a driveway
3. Adding a swimming pool or sprinkler system
4. storage of vehicles and flammable materials or equipment
5. Major landscaping activities: adding trees and shrubs, planting a garden and removing tree stumps

These activities normally require the express consent of the City of Garden Plain to help protect the integrity of the pipeline and the safety of the surrounding community

Always call 811 or visit www.call811.com to have utilities marked before you dig

Flexible Gas Connector Warning

The Garden Plain Gas System is issuing an important safety warning concerning the possible failure of certain flexible gas connectors that supply gas from the supply pipes to appliances such as stoves, dryers, hot water heaters and furnaces.

These flexible connectors are made of corrugated metal tubing. Newer models are made of stainless steel or brass that has been coated with plastic or epoxy. Older connectors, however, were made from uncoated brass. Some of these uncoated brass connectors have a serious flaw in the way they were constructed. Solder was used to braze the flexible brass tubing to the end pieces. Over time, the brazing can fail, causing a serious gas leak. This could lead to an explosion or fire.

These brazed uncoated brass connectors have not been made since 1976, but many are still in use. The older these connectors get, the greater the probability of failure. If you have an uncoated brass connector in your home, it should be replaced immediately with either a new stainless steel connector, or a new plastic coated brass connector. It is a good practice to replace **ANY** connector that is 10 years old or older, as flexible connectors were not meant to last a lifetime. Older units can fail from too much moving, bending, pinching, or from corrosion.

Flexible connectors may only be used where they will not be subject to excessive bending, pinching or vibration. They must begin and end no more than 6 feet from a shut off valve, which must be located in the same room. The entire length of hose must be exposed and accessible for inspection and replacement. That means they may **NOT** pass through walls, ceilings or floors. Do not paint flexible gas connectors as the paint may cover up visible damage or lead to corrosion.

The first step you need to take in checking your flexible gas connector is to locate your shut –off valve. If you can, check the flexible gas connector without moving the appliance attached to it. If you cannot make this check without moving the appliance, we recommend that you have a service technician inspect the connector for you, as moving the appliance could strain the connector and cause a natural gas leak. If your connector is an uncoated brass connector, or is more than 10 years old, it must be replaced as soon as possible. Replace only with a stainless steel or plastic coated brass connector which bears a label that reads: U.L. approved; A.G.A. approved; or ANSI standard.

Install per the manufacturer’s instructions. Do not reuse a flexible connector when you replace an appliance, or move to a new home. **BUY A NEW ONE!**

If you think you have a gas leak in your home from a flexible connector, or any other source: Get everyone out of the structure immediately and to a safe place (do not turn on/off any light switches, or appliances). Do not start any car engines - walk away. Call 911 from a neighbor’s house (If your gas supplier is The City of Garden Plain Gas System, first try 316-531-2321 (after hours 316-833-2594). If no one answers, then call 911. Keep everyone away from the structure and avoid any ignition sources such as cigarettes or cell phones.



↑ Uncoated brass connector
BAD – DO NOT USE

↑ Coated Brass Connector / Coated Stainless steel
GOOD – OK TO USE

↑ Specifications label

CARBON MONOXIDE

What is it, what causes it, and the danger signs

WHAT IS CARBON MONOXIDE?

Carbon Monoxide (CO) is an odorless, tasteless, invisible gas that can be formed when fuels like charcoal, coal, gasoline, diesel fuel, kerosene, natural gas, oil, propane or wood are burned without a sufficient supply of air.

An appliance could produce carbon monoxide if:

- Boxes, Laundry or other materials are blocking the base, restricting the air flow.
- The vent hood, pipes or flues are blocked or corroded
- The unit is installed or adjusted improperly
- It's used incorrectly (i.e., heating a room with a cook stove or using a gas or charcoal grill indoors.)
- The heat exchanger is cracked.

Natural gas furnaces and heating products such as fireplace logs and space heaters should be inspected each year. Other appliances, such as water heaters, clothes dryers, ranges and cook-tops, should be checked for proper operation every two years.

SYMPTOMS OF CARBON MONOXIDE POISONING:

The early effects of CO poisoning mimic the flu, so watch for these warning signs:

- Headache
- Nausea or vomiting without a fever
- Dizziness and disorientation
- Muscle weakness or fatigue

If flu-like symptoms are **NOT** accompanied by a fever, or if everyone in the family is ill, or if the symptoms disappear when you leave the house, you may have a CO problem. Prevention is the only way to deal with carbon monoxide, and the best prevention is regular inspections by a trained service technician.

In The Case Of An Emergency: **Evacuate > Ventilate > Investigate**

- ❗ Move the affected person to fresh air. Administer oxygen if available.
- ❗ Contact medical help.
- ❗ If the person is not breathing, perform artificial respiration as taught in Cardiopulmonary Resuscitation Training until medical help arrives.
- ❗ Ventilate the area.
- ❗ Investigate the source of carbon monoxide and make repairs.

REMEMBER: CARBON MONOXIDE KILLS! BUY YOUR CO DETECTOR TODAY!

