



Important information about

Natural Gas Safety

Please save this pamphlet!



AMEREN EMERGENCY CONTACT INFORMATION

Ameren Corporation is the parent of AmerenCILCO, AmerenCIPS, AmerenIP and AmerenUE. Please be sure to call the correct operating company providing your gas service to ensure your call is handled as efficiently as possible.

AmerenCILCO 1-888-672-5252

AmerenCIPS 1-888-789-2477

AmerenIP 1-800-755-6000

AmerenUE 1-800-552-7583

If you plan to dig, be sure to call the One-Call system to have underground utilities located.

Illinois One-Call System (JULIE) ... 1-800-892-0123

Missouri One-Call System (Dig Rite). 1-800-344-7483

For Poison Control call 1-800-222-1222

**For more information on natural gas safety, visit
www.ameren.com.**

NATURAL GAS is one of the cleanest, most efficient fuels used for the heating of homes and water, food preparation, in manufacturing processes and even to generate electricity. Natural gas is delivered to your home through a system of cross country and local pipelines. With more than 16,000 miles of gas distribution pipe and 1,275 miles of transmission gas lines, we at Ameren take our commitment of delivering safe, reliable natural gas seriously.

Your safety is important to us and this pamphlet is designed to provide you and your family with important safety information that you should know about natural gas. Please keep this pamphlet handy so you can refer to it if you have questions about the safe use of natural gas. Also, be sure to teach children about the information contained in this pamphlet.

CONTENTS

- 1** Recognizing and Reporting Gas Leaks
- 3** Responsible Digging Starts When You Call the One-Call System
- 5** What You Should Know About Carbon Monoxide
- 8** Water Heater Settings
- 8** Storing and Using Common Flammable Household Items
- 9** Natural Gas Piping, Fittings and Connections
- 13** Customer - Owned Buried Gas Piping
- 14** Pipeline Safety and Reliability
- 15** Appliances, Equipment and Interior Piping

RECOGNIZING AND REPORTING GAS LEAKS

What does Natural Gas Smell Like?

Pure natural gas is colorless and odorless. Before the gas is delivered to your home, an odorant called mercaptan is added to give gas its distinctive odor so you can smell a leak immediately. Mercaptan makes the gas smell like sulfur or “rotten eggs”. Everyone in your family should learn to recognize this smell.

If you smell a faint gas odor near an appliance:

- Make sure all pilot lights are lit; if you find a pilot light extinguished, open windows and doors to vent the area; then wait 15 minutes before relighting the pilot light.
- If the odor persists, call Ameren.

If you smell gas inside your home or business and the smell is a strong, persistent natural gas odor, or you hear a hissing or leaking sound you should:

- Leave the building (home or business) immediately, taking everyone with you (including pets), and leave all doors and windows open behind you.
- Call Ameren from a neighbor’s home or nearby business — we respond to emergencies 24 hours a day, 7 days a week.

In these conditions:

- **DO NOT** use telephones, cellular phones, computers, appliances, elevators or garage door openers.

- **DO NOT** touch electrical outlets, switches or doorbells.
- **DO NOT** smoke, use a lighter, match or other open flame.
- **DO NOT** position or operate vehicles or powered equipment where leaking gas may be present.
- **DO NOT** re-enter the home to open doors or windows.

Recognizing an Outdoor Gas Leak

If you hit a gas line while digging, smell a strong gas odor in the air, see or hear any unusual occurrences such as: a high-pitched whistle or hissing sound, blowing dust, dead vegetation in a normally green area, continuous bubbles in an underwater area or ground fires, you may be observing signs of a leak in a natural gas line. Always use caution near an outdoor gas leak and recognize the possible hazards, such as fire, ignition or explosion.

In these conditions:

- **DO NOT** use any device or equipment that could generate a spark or a flame.
- **DO NOT** start up or shut down motor vehicles or electrical equipment.
- **DO NOT** use a telephone or cellular phone in or near the area where you observe signs of a leak.
- **DO NOT** attempt to repair or backfill any damaged or potentially damaged pipeline.

You should:

- Notify Ameren immediately.
- Call 911, or contact your local fire, police or sheriff's department if there appears to be an immediate danger, and advise them of the location and nature of the situation.
- Abandon any equipment being used in or near the area.
- Evacuate the area and try to prevent anyone from entering.

In Event of a Natural Disaster

Special precautions may be necessary in the event of a disaster caused by an earthquake, flood, tornado, storm or similar event. If your home suffers structural damage and you smell or hear the sound of escaping gas, immediately evacuate the premises, and then call 911 and Ameren. You may need to notify other disaster assistance agencies, too. Do not attempt to relight any appliance or pilot lights. Restoration of gas service will be performed by qualified Ameren service personnel when it is safe to do so.

RESPONSIBLE DIGGING STARTS WHEN YOU CALL THE ONE-CALL SYSTEM

Digging responsibly is the only way to dig. The alternative could mean disaster. Anyone planning an outdoor project that requires digging, whether the project is large

or small, should call the One-Call System to have your underground lines marked to avoid damage or injury. In Illinois, the One-Call System is also known as “JULIE” (Joint Utility Locating Information for Excavators), and in Missouri may be referred to as “Dig Rite”. This is a **free service**, and it’s the law.

The One-Call System will take information about planned excavations and distribute this information to its utility members.

Within two working days of your call, a representative from each member utility company will mark the location of the underground facilities at the excavation site, using the following color code:

Orange — Communications, telephone, TV

Yellow — Gas, oil or petroleum

Purple — Reclaimed water

Pink — Temporary survey

White — Proposed excavation

Blue — Potable water

Red — Electric

Green — Sewer

After the lines are marked, dig carefully. Buried lines may be within 24 inches on either side of the paint line or flags. Also, help children understand that a flag means someone is planning to dig in your neighborhood, and the

flag will help them dig safely. Although these colorful flags may seem like toys to young children, it can be very hazardous if the flags are removed or relocated.

Customer-owned, buried lines may not be marked by the One-Call System. (See Customer-Owned Buried Piping on page 13)

Be safe and responsible — and make the One-Call.

Illinois One-Call System (JULIE) — 1-800-892-0123

Missouri One-Call System (Dig Rite) — 1-800-344-7483

WHAT YOU SHOULD KNOW ABOUT CARBON MONOXIDE

Most people know that carbon monoxide (CO) gas is dangerous. Yet few of us know where it comes from, how it affects people or how to recognize that it may be in your home.

Ameren strongly recommends the installation of a carbon monoxide detector in every home or business as one way to detect a possible CO problem. Follow the manufacturer's instructions for proper installation and location of a CO detector.

Where does carbon monoxide come from?

Carbon monoxide is created as a by-product of incomplete combustion. Poisoning and illness may occur when fossil fuels are burned without proper ventilation in close proximity to people. Potential sources of CO include

automobiles, gas appliances, gas furnaces, chimneys, charcoal grills and portable kerosene heaters.

How does it affect people?

Carbon monoxide is tasteless, odorless and dangerous to people. Symptoms of poisoning caused by carbon monoxide exposure may initially be similar to the flu. As they progress, they may include the following: burning eyes, headache, fatigue, nausea, dizziness, confusion, shortness of breath, and unconsciousness.

How can I recognize if CO is in my home?

- Black soot on or around air registers, flues, burners or access openings to appliances.
- Condensation of moisture on inside windows (remember that humidifiers and vaporizers can also cause condensation).
- Dead or dying houseplants and animals (houseplants and pets are highly susceptible to carbon monoxide in the air).
- Abnormal flame characteristics, such as a yellow gas flame instead of blue, flame rolling out of the front of an appliance or flame lifting off the burner.
- Install carbon monoxide detectors that will sound an alarm when CO build up reaches unsafe levels.



What should I do if my CO detector is sounding or I suspect carbon monoxide in my home?

- If the alarm goes off, or you suspect carbon monoxide, get fresh air into the home or business by opening doors and windows.
- If anyone is experiencing symptoms of carbon monoxide poisoning (burning eyes, headaches, dizziness, vomiting, and fatigue) **call the Poison Control Center at 1-800-222-1222**, and they will evaluate the exposure to CO and coordinate medical treatment.
- Call a qualified plumbing or heating professional to inspect your appliances.

What other steps can I take to avoid CO in my home?

- Before each heating season, have your heating system checked by a qualified plumbing or heating professional.
- Make sure appliance vents and exhaust ducts, such as those on water heaters, dryers and ranges, are not blocked, are in good condition and are properly connected to exhaust the combustion gases out of doors.
- Check your chimney/flue to make sure it is not blocked by dirt or bird nests. You can do this by inserting a mirror in the clean-out opening to view the top. Replace rusted vent pipes.
- Never operate a motor vehicle or other gas-powered engines in an enclosed space, such as a garage,

because the engine exhaust can leak into the house. A CO build-up in the house can still occur even if the garage door is left open.

- When using an approved, unvented space heater for supplementary heat or an unvented natural gas fireplace, open a window an inch or more as stated in the space heater operating instructions.

WATER HEATER SETTINGS

Use the temperature settings on your water heater to protect you and other members of your family from burns caused by excessively hot tap water. The U.S. Consumer Product Safety Commission recommends that consumers set their water heaters to no more than 120 degrees.

You can check the hot water temperature in your home by holding a candy or meat thermometer under running hot water from the faucet for two minutes. If the temperature is more than 120 degrees, lower the water heating setting and recheck the temperature in a day or two. If you are uncertain about how to lower your water heater's temperature setting, contact a qualified plumbing or heating professional to assist you.

STORING AND USING COMMON FLAMMABLE HOUSEHOLD ITEMS

Take extra care when storing and using flammable liquids and other materials in areas where gas appliances

operate. Gasoline, paint thinner and kerosene are flammable when exposed to heat. These products can produce invisible explosive vapors that can be ignited by a small spark or flame, even at considerable distances from the flammable liquids. For this reason, never use flammable liquids in the same room or area where a gas water heater is located. It is best to store flammable liquids in approved, labeled containers.

When using aerosol insect sprays or “bug bombs” in areas where a pilot light or other open flame is present, be sure the pilot lights are extinguished before you spray. Other common products, such as any type of aerosol spray, paper, nail polish and disinfectants, can also be dangerous if placed near an open flame or heat source. Prevent common household fires by always keeping flammable materials away from gas burning appliances.

NATURAL GAS PIPING, FITTINGS AND CONNECTIONS

All gas piping, gas fittings and connections should be inspected regularly to ensure your safety. In particular, you may need to contact a qualified plumbing or heating professional:

- If your home is more than 20 years old, some of your appliances may have uncoated brass connectors.

- If the gas piping is made of copper tubing, it may have flared connections that can weaken over time.
- If you are uncertain about the type of piping or connectors used in your home or if you have any concern about whether they are safe.

Uncoated Brass Connectors

Flexible gas connectors are corrugated metal tubes used to connect gas appliances in your home to fuel gas supply



pipes. Some older flexible gas connectors have a serious flaw at the end connections. Over time, the end connections can separate from the connector resulting in a

serious gas leak that may cause a fire or explosion. These flawed connectors, made of uncoated brass, have not been manufactured since 1976 — but many are still in use, and the older these connectors get, the greater the possibility of a failure. The Consumer Product Safety Commission has issued several warnings to alert the public that uncoated brass appliance connectors must be replaced.

Although not all uncoated connectors have this flaw, it is very difficult to tell which ones do. Therefore, any uncoated brass connector should be replaced immediately with either a new plastic-coated brass (usually yellow or gray in color) or a new stainless steel connector.

Make sure any replacement connector is certified by the American Gas Association.

Connectors can wear out from too much moving, bending, or corrosion. Connectors should always be replaced whenever the appliance is replaced or moved from its location.

Only a qualified plumbing or heating professional should check your connector and replace it if needed. Do not try to do this yourself! Moving the appliance, even slightly, whether to clean behind it or to inspect its gas connector, can cause the failure of one of these older weakened connectors, possibly resulting in a deadly fire or explosion.

Copper Tubing with Flared Connections

Copper tubing has been used to connect natural gas appliances to residential house piping for a number of years. As recently as 1989, the National Fuel Gas Code approved the use of copper tubing for interior distribution of natural gas. However, tests have shown that copper tubing will slowly weaken from corrosion. Corrosion is a chemical reaction, where the inside wall of the tubing slowly flakes off as natural gas is used by the appliance. These flakes may cause blockage in the gas control, resulting in an appliance not operating properly. More importantly though, when the inside wall of the copper tubing slowly weakens there is the potential for a

gas leak, fire or explosion. Experience has shown that most failures with copper tubing have occurred at “flared” connections in the tubing.

The flared connections are commonly used to connect copper tubing to gas appliances, valves, or other fittings. A flared connection is made by inserting a “flaring tool” into the end of the copper tubing, and by applying mechanical force with the flaring tool, the end of the tubing is expanded and reshaped (flared) to match the connecting point of the appliance or valve. By necessity, the flaring process stretches and thins the wall of the copper tubing, making it more susceptible to corrosion failure when exposed to natural gas over time.



Ameren considers these flared fittings to be potentially dangerous. If your home utilizes copper tubing for the distribution of natural gas or to connect an appliance to the house piping,

you may be at risk of a gas leak, fire or explosion. A qualified plumbing or heating professional should be contacted to inspect your natural gas tubing, especially the flared connections, and replace any tubing or connection where corrosion is discovered.

Copper tubing connections from the house gas piping to a gas burning appliance such as a furnace, water heater, gas dryer or gas fireplace should be replaced with stainless steel appliance connectors designed and approved for natural gas.

Preferred Materials for House Piping

Ameren recommends the use of black iron pipe (Schedule 40) or corrugated stainless steel tubing (CSST) for natural gas piping inside your home. In addition, any metallic buried piping should be coated and cathodically protected. Please note that your municipal or county government may specify the material to be used for house piping.

CUSTOMER-OWNED BURIED GAS PIPING

Ameren owns and maintains the gas pipelines up to your gas meter. However, many customers also have buried gas piping between the meter and gas-burning appliances. This piping belongs to the property owner, and Ameren does not maintain it.

You likely have buried gas piping if you have a gas light, a permanently installed gas grill, a gas pool heater, gas heater in a detached garage, or any other gas-burning appliance located away from your house or primary building. You may also have buried piping if the gas

fuel line from your meter goes underground before it goes into a basement or crawl space.

Ameren inspects its buried gas pipelines periodically to ensure they are maintained in good condition. Likewise, if you have buried gas piping, you should periodically have it inspected for leaks. If the piping is metal, also check for corrosion. Piping should be repaired immediately if any unsafe condition is discovered. A qualified plumbing or heating professional can assist in locating, inspecting and repairing your buried gas piping.



PIPELINE SAFETY AND RELIABILITY

At Ameren, our natural gas pipelines are safe and reliable...and we work to keep them that way. Ameren is committed to public safety, protection of the environment and safe operation of its facilities. Our employees receive thorough and ongoing

training to ensure the continued safe transport of natural gas to our customers.

The U.S. Department of Transportation requires the use of signs to indicate the approximate location of underground pipelines. Ameren installs markers for the safety

of the public. It is against the law to vandalize or remove any pipeline marker.

Markers, like the one in this booklet, are located at road, railroad and navigable waterway crossings. Markers are also posted along the pipeline right-of-way. The markers display:

- The material transported in the pipeline.
- The name of the pipeline operator.
- A telephone number where the operator can be reached in the event of an emergency.

APPLIANCES, EQUIPMENT AND INTERIOR PIPING

Safety does not stop at the meter. It is your responsibility to ensure your gas appliances, equipment and interior piping are regularly inspected and properly maintained. Check for blockage, corrosion and malfunctioning equipment when the seasons change, or sooner, if you suspect a problem. A qualified plumbing or heating professional can help you determine whether your gas equipment and piping are operating properly.



AMEREN EMERGENCY CONTACT INFORMATION

AmerenCILCO1-888-672-5252

AmerenCIPS1-888-789-2477

AmerenIP1-800-755-6000

AmerenUE1-800-552-7583

If you plan to dig, be sure to call the One-Call system to have underground utilities located.

Illinois One-Call System (JULIE)

1-800-892-0123

Missouri One-Call System (Dig Rite)

1-800-344-7483

For Poison Control call1-800-222-1222

For more information on natural gas safety, visit www.ameren.com.



Printed on recycled paper. Please recycle.

Form F5703 Rev. 9/05 Stock No. 37-22-205

Req. CFR T49.192