



# Natural Gas Pipeline Safety

Information for  
Emergency Officials

**Consumers Energy**

*Count on Us®*



## Pipeline Safety in Your Community

We want to make you aware of our continuing efforts to keep your community safe and how you can play a role.

Knowing the signs of a natural gas leak, practicing safe digging and being aware of proper land use near pipelines all go a long way to keeping you and your community safe.

We provide natural gas service to more than 1.8 million Michigan customers. To help keep gas flowing to homes and businesses, we operate and maintain multiple natural gas storage fields along with compressor stations to pressurize the gas so it moves quickly through more than 28,000 miles of pipelines. Then, we reduce the pressure in regulating facilities so the gas can be efficiently used for cooking, heating and other purposes.

According to the U.S. Department of Transportation, pipelines are the safest, most reliable and cost-effective means of transporting energy products, such as natural gas, over long distances. As one of the state's largest natural gas companies, we take our job of ensuring pipeline safety very seriously.

Knowing the signs of a natural gas leak, practicing safe digging and being aware of proper land use near pipelines all go a long way to keeping you and your community safe.

# Responding to Natural Gas Leaks

Knowing how to recognize, react and report natural gas emergencies can help keep you and your community safe.

## 1 Recognize

- “Rotten egg” sulfur smell
- Blowing or hissing sound
- Dead or discolored vegetation in an otherwise green area
- Dirt or dust blowing from a hole in the ground
- Bubbling in wet or flooded areas
- Flames, if a leak has ignited

**NOTE:** Consumers Energy also may operate high-pressure transmission pipelines in your area. Signs of a transmission pipeline leak could include any of the above, except the “rotten egg” odor.

## 2 React

- **Leave the area immediately**, without using anything that could ignite the natural gas
- Do not use any electrical device, such as light switches, telephones, cell phones or garage door openers
- Do not use an open flame, matches or lighters
- Do not try to locate the source of the gas leak
- Do not try to shut off any natural gas valves or gas appliances
- Do not start vehicles
- Do not re-enter the building or return to the area until our employee says it's safe to do so

## 3 Report

### Go to a safe location

- Then call 9-1-1 and call us at 800-477-5050, 24 hours a day, seven days a week
- If you see unusual activity near a natural gas pipeline or facility, call our security team at 800-760-3295. We will respond at no charge



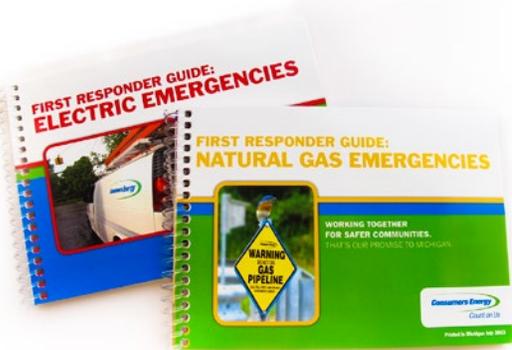
## Resources for Emergency Officials

### First Responder Training

We provide in-person safety education sessions for emergency officials on natural gas or electric hazards and responding to energy-related emergencies. After the session, we can provide you with a quick reference guide to put in your emergency response vehicles.

To find Public Safety Outreach contacts, sign up for training and learn more about our programs, visit: [ConsumersEnergy.com/emergencyofficials](http://ConsumersEnergy.com/emergencyofficials).

If you have questions, email [PublicSafety@cmsenergy.com](mailto:PublicSafety@cmsenergy.com).



## Natural Gas Emergency Response Facts

Safety of public and emergency officials is our first priority when responding to a gas emergency. Below are some tips for responding to gas emergencies.

### Emergency Response Precautions

- Park upwind and avoid stopping over manholes and vaults. Establish traffic control as needed and approach cautiously.
- Do not attempt to stop a natural gas leak, including pinching, squeezing or burying a pipe. Interference can cause a spark from static electric charge.
- Immediately evacuate the area.
- Make sure all in the evacuation area do not use cell phones or any electronic device that could cause a static electric spark such as doorbells or garage door openers.
- Gas can migrate beyond the immediate leak area and will follow the path of least resistance, including traveling underground and into sewers or basements.
- Gas can displace oxygen and cause asphyxiation, even outdoors if concentrated and especially in enclosed spaces.
- Once a leak is fixed, the gas will eventually dissipate into the atmosphere. If natural gas has ignited, do not attempt to put out the fire. Already burning natural gas should not explode, though secondary ignition is possible at a different location such as within a building.



## Safe Digging

A major cause of leaks is damage from someone accidentally striking an underground pipeline. This is a serious safety threat and can lead to personal harm, physical damages and financial loss.

You can stay safe when digging by always contacting MISS DIG 811 by calling 8-1-1 or going online at [missdig811.org](http://missdig811.org) at least three days before digging to have underground facilities marked.

MISS DIG 811 is a free service that will have underground lines marked with stakes, flags or paint. Contact 8-1-1 even for routine jobs such as planting shrubs or trees, replacing a mailbox post or installing a fence or deck.

We use yellow stakes, flags or paint to identify the location of natural gas pipelines before the start of a digging project.

Agricultural and farm workers also should be aware of nearby pipelines and contact 8-1-1 before performing deep plowing, trenching, leveling and other excavation work.

Public Act 174 of 2013 requires municipalities operating underground services (water, sewer, electric, etc.) in public right of way to be members of MISS DIG 811 so they can protect their underground facilities.

Underground facilities belonging to the property owner such as electric lines to yard lights, invisible dog fences, sprinkler systems, and gas lines to barbecue grills are considered private utilities and will not be staked with a MISS DIG 811 request. Residents are responsible for marking these lines. Contractors are available who can provide this staking service for a fee.

Once underground lines are marked:

- Avoid digging within four feet of marks.
- Use hand tools to expose buried lines before using power equipment if you must dig within four feet of marks.
- Call us immediately at 800-477-5050 if you believe you may have hit or nicked a natural gas line, even if you don't see or expect damage.



## Pipeline Safety Programs

We have many programs in place to maintain the safety of our natural gas system, especially in densely populated areas or places where people congregate such as schools, parks and campgrounds. The federal government sets specific standards for the development of integrity management programs near these High Consequence Areas. Some of our many safety efforts include:

- All pipe is factory tested to ensure it meets our safety standards.
- Our cathodic protection program uses a low-voltage electric current to help reduce or eliminate corrosion.
- We use high-tech devices called “smart pigs” to locate any breaks in the pipe’s protective wrap, dents or small internal weaknesses.
- We conduct ground and aerial surveys to check our 2,550 miles of transmission pipelines at least twice a year.
- We respond to more than 450,000 MISS DIG 811 requests each year to mark pipeline locations so excavators can dig safely.
- To allow us to respond quickly to any emergency, our employees continuously monitor a computer system that alerts us to any abnormal pressures or flows in the gas system.
- Field employees receive extensive training to maintain pipelines and respond to any possible problem.
- We respond promptly to all gas emergency calls to make the situation safe as soon as possible and to mitigate the impact of an incident involving natural gas.
- We also count on the awareness of those living and working near pipelines to inform us of unusual activities and have an extensive pipeline public awareness program.



## Pipeline Markers

Since high-pressure pipelines are buried and out of sight, we’ve posted important warning signs above ground.

The route of an underground pipeline is identified with above-ground pipeline markers; however markers do not indicate the pipeline’s exact location, its depth or the direction it follows.

Pipeline markers are located at road, railroad and waterway crossings and at regular intervals across agricultural areas. They are yellow signs that identify the company, type of pipeline and provide an emergency phone number.

Aerial pipeline markers approximately every four miles enable our pipeline aerial patrols to follow the route and detect soil erosion, heavy equipment working or digging in the area, or other situations requiring immediate action.

If you see a damaged sign, please call us at 800-477-5050.

## Pipeline Corridors

Our pipeline corridors are located on both company-owned land and right of way (easements) obtained from other landowners.

Pipeline corridors must be kept free of trees, buildings or other structures to help ensure we deliver safe, reliable energy to Michigan homes and businesses. For public safety, the following guidelines must be observed on all pipeline corridors:

- Structures, such as buildings, sheds and swimming pools are NOT allowed in the corridor.
- Underground facilities, such as drain tiles, culverts, electric cables, septic systems, water wells, etc. must NOT be constructed in the corridor.
- No soil is to be added or removed over the pipeline.
- No roads shall be constructed over or across pipelines without first consulting with the pipeline owner.
- No trees or shrubs shall be planted in the corridor.
- No blasting must be conducted in the corridor.



## Pipelines in Your Area

The National Pipeline Mapping System (NPMS) provides maps of interstate and intrastate transmission pipelines for natural gas, oil and other products, along with contact information of the pipeline operator.

We provide data to NPMS for the natural gas pipelines we own and operate. To find out who operates any transmission pipelines in your area, visit [www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov).



## Natural Gas Safety Facts

### Detecting natural gas leaks

- Natural gas is naturally colorless, tasteless and odorless.
- Natural gas in most large, cross country transmission pipelines is odorless.
- A “rotten egg” odor is added before the gas enters the local distribution system for delivery to local homes and businesses so gas leaks can be detected quickly, without special equipment.

### Gas flammability

- To burn, natural gas must be mixed with air and have access to an ignition source.
- Ignition sources can be anything with an open flame like pilot lights, matches, stoves or ovens. Ignition sources also include most things with an on/off switch such as indoor lights, cell phones, car motors, garage door openers, etc.
- If natural gas does ignite, do not attempt to put out the flame. Burning natural gas should not explode.

### Natural gas is not LPG

- Liquefied petroleum gases (LPG), such as propane, are different than natural gas. They are heavier than air and collect in low places. Natural gas is almost 40% lighter than air and will rise; eventually the gas will dissipate if outside or in open, ventilated spaces.

## Natural Gas Hazards

We work hard to maintain a safe gas system. However, if not addressed, natural gas leaks could cause fire and/or explosions. Asphyxiation could also result because natural gas can displace oxygen in confined spaces.

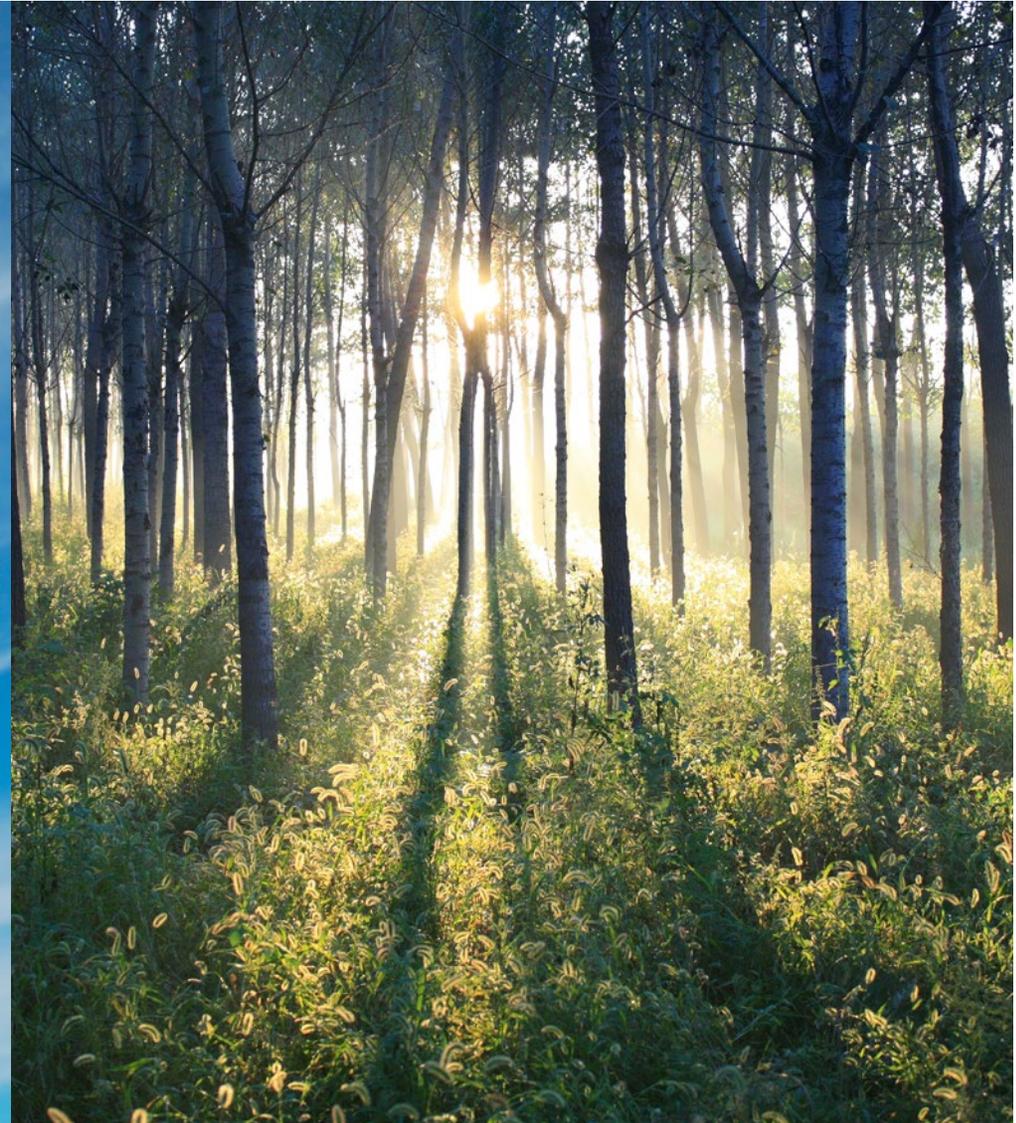
### Gas leaks can be caused by

- Excavating accidents that result in the rupture, nicking or puncturing of a pipeline.
- Placing extremely heavy materials or equipment over buried pipelines, such as soil piles, heavy equipment, outriggers, etc.
- Water main breaks that weaken roadways and pavement can result in damaged pipelines.
- Excess accumulation of snow and ice on meters, gas pipes and gas appliance exhaust and combustion air vents. Use care when removing snow and ice.
- Collapsed buildings that break or damage gas pipelines.
- Fire or explosion near a pipeline.
- Too much, or not enough pressure, in the gas system.
- Equipment failure or corrosion.
- Natural disasters such as floods, tornadoes or earthquakes.



## See something. Say something.

If you see an excavation site or someone digging with no underground lines marked and believe they exist in the area, call MISS DIG 811 to place a Concerned Caller ticket.



## Land Development

Obstruction-free corridors help us to safely deliver natural gas to our customers. Our owned land is private property and not open for public use without permission. We may give specific permission to adjoining landowners

and others to use its property through a lease, license, permit or easement. For more information, call our operations planning center at 866-679-4054 or email [LandContracts@cmsenergy.com](mailto:LandContracts@cmsenergy.com).

If you notice any suspicious activity near a pipeline or gas facility, call 9-1-1 and our security command center: 800-760-3295



## For more information

- Consumers Energy 800-477-5050
- [ConsumersEnergy.com/safety](https://www.consumersenergy.com/safety)
- [missdig811.org](https://www.missdig811.org)
- [PublicSafety@cmsenergy.com](mailto:PublicSafety@cmsenergy.com)
- Locate your Community Affairs Area Manager at [ConsumersEnergy.com/communityaffairs](https://www.consumersenergy.com/communityaffairs)

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