



NATURAL GAS PIPELINE SAFETY

INFORMATION FOR EMERGENCY OFFICIALS

Consumers Energy

Count on Us®

Pipeline Safety in Your Community

We WANT TO MAKE sure you are 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 family safe.

Please take a few minutes to review this information and share it within your organization.

Consumers Energy provides natural gas service to more than 1.7 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 our 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.



Resources for Emergency Officials

First Responder Training

We provide in-person education sessions for emergency officials on natural gas or electric hazards and responding to utility-related emergencies.

After the session, we can provide you with a quick reference guide to put on your emergency response vehicles.



Important Facts About Natural Gas Safety

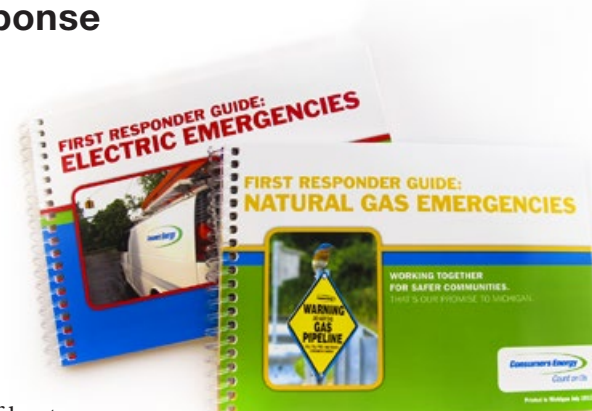
Safety of public and emergency officials is our first priority when responding to a gas emergency.

Below are some tips for responding to gas emergencies. For more information or training, contact our Public Safety Outreach Team at publicsafety@cmsenergy.com

For first responder training requests or guides, below, contact our public safety outreach team: publicsafety@cmsenergy.com

Emergency Response Precautions

- Park upwind and avoid parking over manholes and vaults
- Establish traffic control as needed and approach cautiously
- Remember: natural gas can migrate beyond the immediate area
- Gas will follow the path of least resistance, including traveling underground and into sewers or basements



- Do not attempt to stop a gas leak
- Evacuate the area and control ignition sources
- Do not attempt to plug or squeeze a natural gas pipe. Pinching off a pipe can cause a spark from static electric charge
- Gas can displace oxygen and cause asphyxiation, even outdoors
- Allow gas to dissipate into the atmosphere. Do not bury a damaged pipe
- If gas has ignited, do not attempt to put out the fire
- Burning natural gas will not explode

Safe Digging

A major cause of leaks is damage from someone accidentally striking an underground pipeline. This is a serious safety threat and could also lead to property damage or expensive repairs.

You can stay safe when digging by always contacting MISS DIG by calling 8-1-1 or going online at MissDig.net at least three days before digging to have underground facilities marked.

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

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



**Know what's below.
Call before you dig.**



SAFETY REMINDER

FREE Damage Prevention and Contractor Safety Education

Contact our team to discuss safe digging practices to help reduce damages and prevent costly safety incidents. Email: publicsafety@cmsenergy.com



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

Underground facilities belonging to the property owner such as electric lines to yard lights, underground sprinklers, and gas lines to barbecue grills will not be staked by utilities responding to a MISS DIG request. Residents are responsible for marking these lines. Contractors are available who can provide this staking service for a fee.

Once underground facilities are marked:

- Avoid digging within four feet of marks
- Use hand tools to expose buried utility lines before using power equipment within four feet of marks
- Call Consumers Energy immediately if you believe you may have hit or nicked a natural gas line

Important Natural Gas Safety Facts

DETECTING NATURAL GAS LEAKS

- Natural gas is naturally colorless, tasteless, odorless and nontoxic
- A “rotten egg” odor is added to natural gas before delivery to your home so gas leaks can be detected quickly, without special equipment
- Natural gas in most large transmission pipelines has not had odorant added yet

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 will 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 percent lighter than air and will rise and eventually dissipate if outside or in open, ventilated spaces

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 standards for the development of integrity management programs specifically near these High Consequence Areas.

Some of our many safety programs include:

- First, 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 300,000 MISS DIG 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

Natural Gas Hazards

We work hard to maintain a safe gas system. However, if not addressed quickly, 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. Exercise 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

- 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

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.

Consumers Energy provides data to NPMS for the natural gas pipelines we own and operate.

Public officials may register on NPMS to access information beyond what is available to the general public to aid in community planning activities.

To find out who operates any transmission pipelines in your area, including Consumers Energy, visit www.npms.phmsa.dot.gov.

Additionally, Consumers Energy maintains an Emergency Officials online web portal that provides resources including Consumers Energy system maps, public safety bulletins and online hazard awareness videos for first responders. To request access to this portal, send an email to publicsafety@cmsenergy.com.



Natural Gas 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.

Pipeline Corridors

Consumers Energy pipeline corridors are located on both company-owned land and rights 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 should 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. should NOT be constructed in the corridor



- No soil is to be added or removed over the pipeline
- No roads should be constructed over or across pipelines without first consulting with the pipeline owner
- No trees or shrubs should be planted in the corridor
- No blasting should be conducted in the corridor

Using Consumers Energy Land

Obstruction-free corridors help us to safely deliver natural gas to our customers.

Land owned by Consumers Energy is private property and not open for public use without permission.

Sometimes the company may give specific permission to adjoining landowners and others to use its property through a lease, license, permit or easement.

For information on obtaining a lease, license, permit or easement call the Consumers Energy operations planning center at 888-253-4782.



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

The 3 Rs of Natural Gas Safety

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



1. RECOGNIZE:

Signs of a natural gas leak may include:

- “Rotten egg” 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

Consumers Energy also may operate high-pressure transmission pipelines in your area. Signs of a natural gas 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, 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 Consumers Energy at **800-477-5050**, any time day or night

- **We'll respond 24 hours a day, seven days a week, at no charge.**
- **Responderemos a su emergencia las 24 horas del día, 7 días por semana sin costo alguno.**

SAFETY REMINDER

Many natural gas leaks are caused by damage to pipelines.

If you hit a gas pipeline, call Consumers Energy toll-free at:

800-477-5050, even if there is no apparent damage.





For more information

- ▶ [Consumers Energy 800-477-5050](tel:800-477-5050)
- ▶ ConsumersEnergy.com/safety
- ▶ misddig.org



WORKING TOGETHER FOR SAFER COMMUNITIES.

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