



CATTARAUGUS COUNTY OFFICE OF EMERGENCY SERVICES

303 Court Street
Little Valley, NY 14755

Gas hazards in Home Environments

What is it?

Two primary types of combustible gases are used in the home. Natural Gas and Propane are used for cooking, heating, and clothes dryers, etc. Natural Gas and Propane are both hydrocarbons and when used safely and properly both are reliable, safe energy sources.

To ensure safety, it is important to ensure that appliances such as furnaces, cooking stoves, fireplaces, dryers, etc. that utilize propane and natural gas are working properly and “gas” lines are in good condition without any leaks. Both of these gases are flammable and combustible. If an appliance isn’t working properly, or a leak in a line occurs, it could result in a fire, natural gas and/or carbon monoxide poisoning to occupants of the home including pets, and at worst can reach explosive limits.

Methane, the main component of natural gas also comes from natural sources such as wetlands, in areas of natural oil and gas formations, animal digestion, along with thermogenic sources, including oil and gas production. Methane and Propane are both naturally colorless, odorless, and tasteless. During production, utility companies add an odorant that has a rotten egg type smell to help identify if a leak is present.

Methane may also be present in water wells due to natural conditions or it may enter a well due to human activities in the area of the well including coal mining, gas well drilling, pipeline leaks and from landfills. Methane gas alone is not toxic and does not cause health problems in drinking water at low levels but at *elevated* concentrations, it can escape quickly from water causing an explosive hazard in poorly ventilated or confined areas. Escaping gas may seep into confined areas of your home, where it may reach dangerous concentrations. Methane found in water wells has not gone through production and doesn’t have the odorant added, therefore will be odorless.

What should I pay attention to?

1. Smell – Recognizing the odor – which is similar to rotten eggs (if leak is from propane/methane after production)
2. Sound – Hearing an unusual noise like roaring, hissing or whistling
3. Sight – Seeing a white cloud, mist, fog, and/or bubbles in standing water
4. Appliances – check piping and connections for signs of leaks, wear, etc. Contact an authorized service representative if something needs repair
5. Cooking appliances- Ensure they are turned completely off after each use
6. Illness/sickness of occupants – Headaches, dizziness, nausea, eye & throat irritation, fatigue, trouble breathing are all symptoms of a possible gas leak and/or Carbon monoxide poisoning.
7. Well Water - Change in water quality, bubbles, turbidity (loss of transparency). Contact the *Cattaraugus County Health Department* if you suspect gas is coming from your well.
8. Venting of your water well – water wells should vent to the outside atmosphere.





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What can I do to protect my family & property?

1. Ensure Smoke Detectors are installed in the home (on every level, including the basement)
2. Ensure Carbon Monoxide Detectors are installed in the home (on every level, including basement)
3. Install an “explosive gas” detector in your home. These are available from most home improvement stores for under \$100.00
4. Ensure appliances/piping are working properly, efficiently, and in good condition
5. Utilize authorized service representatives for repairs, if needed

Who should I contact & what should I do if I suspect a leak or my detectors activate?

1. If you suspect a gas leak and/or carbon monoxide you should get out of the home and get away from the immediate area of the suspect leak. (preferably in an upwind direction)
2. **Call 911 from a safe location**
3. Contact your Natural Gas/Propane supplier
4. DO NOT attempt to shut off any gas valves, or locate the source of the leak
5. DO NOT re-enter the home for any reason
6. Avoid creating sparks and eliminate sources of open flame (such as smoking)

For additional information

1. Visit your utility providers website for additional information about Natural Gas and Propane Safety
2. Contact your utility provider
3. Cattaraugus County Emergency Services at 716-938-2240, <https://www.cattco.org/oes>



Methane in Well Water

Frequently Asked Questions

May 2016

This fact sheet answers questions about methane gas in private drinking water wells, and lists actions people can take to protect their health.



What is methane?

- Methane is a colorless, odorless gas that can dissolve in water.
- Methane in water escapes quickly to the air as a gas.
- Methane gas can build up in poorly ventilated areas, such as bathrooms, laundry rooms, and in the well itself. If too much of the gas builds up, it can cause a fire or explosion.
- Methane can also change the chemistry of your well water, making your water unpalatable and releasing iron and manganese that can adversely affect taste and stain plumbing fixtures.

How do I know if methane is in my water?

- If your water has bubbles similar to carbonated soda or if it looks white or milky, methane might be in the water.

What can I do if methane is in my water?

- Put a gas detector in your home to warn you if methane in the air in your home is near or at an unsafe level. Carefully read the directions that come with the detector. Make sure you know how to use the detector.
- Ventilate your home to lower the amount of methane gas in the air, especially in small or enclosed rooms where you use the most water, such as the bathroom, laundry room, and kitchen.
- Have a vent installed on your wellhead.
- Keep sparks or open flames away from the wellhead and out of enclosed areas of your home, such as the bathroom and laundry room.
- Install a water treatment system to remove dissolved methane from your well water before it enters your home.

Where can I get a gas leak detector and how do I use it?

- You can buy a gas leak detector that will alert you with light or sound at most home improvement or hardware stores. Look for one that will detect methane. It might be called a gas leak detector, a combustible gas detector, or an explosive gas detector.
- Follow the directions included with the detector to find the best place to install it. Generally, good places to install detectors inside the home are those where the most groundwater use occurs. This include the bathroom, laundry room, utility room, and kitchen.



What should I do if the gas leak detector alarms?

- A gas detector warns you when levels of some gases in the air might be dangerous.
- If you hear the alarm, open the windows in your home and put out any open flames, such as cigarettes or candles.
- To be safe, you should get your family out of the house.
- Call 911 at a place away from your house.
- Do not go back into your house until the fire department checks your house and says it is safe.

How do I ventilate my home?

- In small or enclosed areas where you use a lot of water, such as the bathroom, laundry room, or kitchen, make sure you turn on a fan or open a window when water is running for more than a few minutes.

How can I vent my water well for methane?

- You can put a vent on your wellhead that will let the methane gas escape before it enters your home.
- Check with your state environmental and health or local public health agencies for a list of certified water well drillers and pump installers that can install a well cap for you. County extension agents may also be able to give you advice about your private well quality – to find your county extension visit <https://nifa.usda.gov/partners-and-extension-map?state=All&type=Extension>.

For more information call 1-800-CDC-INFO (232-4636) or visit <https://www.cdc.gov/info>.

The Agency for Toxic Substances and Disease Registry is a federal public health agency of the U.S. Department of Health and Human Services. ATSDR promotes healthy and safe environments that prevent harmful exposures to toxic substances. To learn more about ATSDR, visit www.atsdr.cdc.gov.

For more information in Cattaraugus County contact:

Natural Gas Hazards

Cattaraugus County Office of Emergency Services

Ph: 716-938-2240

website: <https://www.cattco.org/oes>

Water well testing

Timothy Zervas

Cattaraugus County Health Department - Environmental Health Division

Ph: 716-701-3388

website: <https://www.cattco.org/health>