

NATURAL GAS SAFETY

While rare, natural gas line leaks can be extremely dangerous. The most telling sign of a natural gas line leak is the familiar rotten egg odor. Since natural gas is itself odorless and invisible, this odor is deliberately created by a chemical added to the natural gas so it can be detected in the event of a leak. Any incident involving gas leaks or suspicious odors should be reported so that the proper actions can be taken to protect life and property. If you encounter or suspect a gas leak, contact the University Police Department at 765-285-1111 so the appropriate persons or department can be notified and an investigation or response can be promptly undertaken.

The biggest hazard of a gas leak is an explosion. When natural gas builds up in an enclosed area, it becomes extremely volatile. Fortunately, natural gas is flammable only within a certain concentration range, and in the presence of oxygen and an ignition source.

Properties of Natural Gas – 3 Hazards

- 1. Flammability/Explosivity is the primary hazard**
Gas is non-toxic by itself: 94% methane; 4% ethane; some butane and pentane
- 2. Carbon Monoxide when gas is incompletely combusted or not vented Properly; and,**
- 3. Asphyxiation hazard only through it's ability to displace oxygen can it pose this hazard (a flammable atmosphere by then).**



An instrument (gas detection meter) is needed, however, in order to determine if any natural gas, or combustion byproducts, are present, and if they represent an immediate hazard.

If you smell a gas odor--or if a gas monitor alarm sounds:

- Do NOT attempt to locate the leak.
- Do NOT use your home or cell phone – If already on the phone, do not hang up!
- Do NOT turn on **or** off any electrical appliances.
- Do NOT smoke or use any open flames – extinguish any candles, etc.
- Do NOT touch, breathe, or make contact with the leak.
- Do NOT turn on or off light switches, or do anything that may create a spark or open or close an electrical contact.
- Do NOT attempt to extinguish any natural gas fire.
- Do NOT attempt to operate any valves.
- Do alert your advisor, supervisor, or manager, and other staff, faculty, or students, and prepare to evacuate and secure the room or area.
- DO leave the building or residence and, from a safe distance, call the University Police at 285-1111 or 5-1111 (from an on campus phone); or, if residing or working off campus, call 911, and give the dispatcher the location of the odor.
- Do remain available to meet with and assist response personnel.
- Do NOT re-enter the building or outside area until cleared by authorized personnel.

If a gas leak requires evacuation, the university's evacuation procedures for the building or area must be followed immediately.

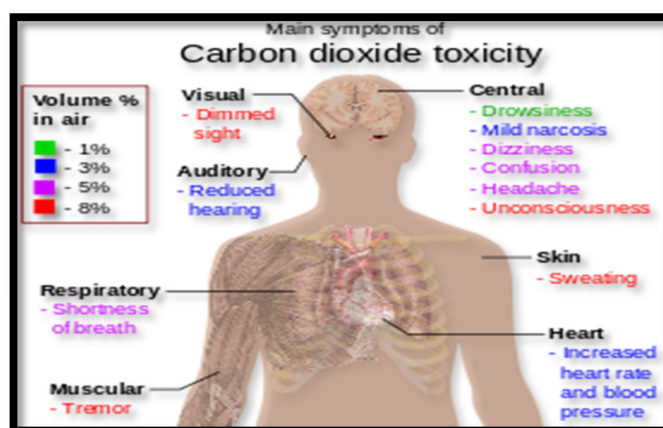
Response personnel will not return a phone call to the suspect room, apartment, or building, and will not ring any doorbell upon arrival—but will knock. The Environmental Health and Safety Office (EHS), Facilities Maintenance, or Housing Maintenance will perform initial monitoring and evaluation to determine the source and eliminate or evaluate any immediate hazards. In the event that the source cannot be found, EHS will contact Veolia (the University natural gas supplier) or a private contractor for further on-site evaluation of the natural gas distribution system.

Gas leaks outside of buildings are dangerous as well. Most gas lines coming into structures are buried underground. Before doing any job that requires digging outside, homeowners should call **Indiana 811** at least 48 hours before digging. The utilities will be contacted and asked to mark the lines they own. After the lines have been marked, safe, careful digging can begin.

In Indiana, the law requires anyone planning to dig or excavate (especially near an underground pipeline) to notify Indiana 811 two working days (48 hours) prior to beginning excavation activities. Indiana 811 will notify local utilities (including BSU) that operate buried facilities in the area. A utility representative and/or BSU staff will determine if the project is near underground facilities and dispatch someone to the work site to clearly mark the route and location of buried cables and/or pipelines. The call to Indiana 811--and the marking of nearby underground utilities--is FREE.

Carbon Monoxide (CO) Poisoning

The chemical properties of natural gas make it a clean fuel source. However, those same properties make it potentially dangerous for consumers if their natural gas appliances are not properly maintained. One of the dangers of poorly maintained or improperly used appliances is carbon monoxide poisoning. If a faulty furnace does not burn natural gas properly, or is not vented properly, carbon monoxide can accumulate in the building or residence. When a person breathes carbon monoxide, their brain and organs are robbed of the oxygen necessary to function properly or wisely, and they can become sick and incapacitated very quickly. Symptoms of carbon monoxide poisoning are similar to those of the flu without a fever.



To reduce the risk of carbon monoxide poisoning, here are a few tips:

- Be aware of and test carbon monoxide monitors regularly. These devices work similarly to a smoke detector, only they measure the amount of carbon monoxide in the air.
- Call BSU Work Control if you believe that any gas appliance or heater is not functioning properly or is not venting to the outside atmosphere correctly.
- Inspect the vents, flues, and chimneys of all gas water heaters, furnaces, and fireplaces to ensure proper ventilation of exhaust. Do not obstruct or impair these vents.
- Never use an oven or other gas or liquid fueled device to heat an interior space unless it is properly vented--never use an internal combustion engine in an interior or confined space.
- Carbon monoxide is odorless and colorless – if an alarm goes off, or you believe that carbon monoxide has accumulated, immediately leave the structure - opening doors and windows on your way out.
- Those experiencing any poisoning symptoms should get out of the structure and call the University Police at 285-1111 or 5-1111 (from an on campus phone), or if residing or working off campus, call 911.

Important Contact Information (all Area Code 765):

<u>BSU Police Department:</u> 285-1111 or 911	<u>Housing and Residence Life:</u> 285-8011
<u>BSU Work Control:</u> 285-5081	<u>BSU EHS Office:</u> 285-2807
<u>BSU Operator:</u> 289-1241	<u>Off Campus Emergencies:</u> 911