

appliance. This principle applies to any vented device (e.g., fireplaces and exhaust fans). Without adequate ventilation, complete combustion will not occur. Instead of carbon dioxide being produced, carbon monoxide will be generated—a potentially deadly situation.

## Symptoms of carbon monoxide poisoning

- Flu-like symptoms: nausea, dizziness, drowsiness, vomiting, confusion, fatigue.
- In many cases, victims are aware they are not well, but become too disoriented to save themselves.
- Particularly vulnerable are pregnant women, small children, senior citizens and people with heart or respiratory problems.

## Safety tips

- Have professional annual inspections and cleanings of heating systems, vents, flues and chimneys.
- Conduct your own visual inspections. Look for improper connections, rust, stains or water build-up.
- Never leave a car running in a garage.
- Never use gas or charcoal grills in an enclosed area.
- Install carbon monoxide alarms on every level of your home, especially near bedrooms.
- If you suspect carbon monoxide, get fresh air and call 911.

## If you suspect a natural gas leak in your home or building:

- For your safety, we recommend that you and anyone else in the home or building leave the premises immediately.
- From a neighbor's home or other safe location, call Duke Energy at 513-651-4466 or 1-800-634-4300.
- Do not start any vehicle if it is in an attached garage.
- Do not operate an automatic garage door.
- Do not use matches, open flames, lighters or cigarettes in the home or building.
- Do not turn on or off electrical switches or appliances.
- Do not use phones (including cellular phones) in the home or building.
- Do not re-enter the home or building until cleared to do so by a Duke Energy representative.
- Watch for the Duke Energy vehicle to arrive and meet the representative at or near the truck.



# NATURAL GAS SAFETY IN YOUR HOME



# NATURAL GAS APPLIANCE SAFETY

Routine maintenance will ensure that your natural gas appliances are safe and efficient. Consider having your furnace, water heater and other natural gas appliances inspected annually by a qualified technician, such as a professional plumber; heating, ventilation, air conditioning (HVAC) professional; or appliance repair contractor.

In addition, here are some steps you can take on your own, as well as safety tips to use in case there's a problem with an appliance.

## What color is your flame?

On a natural gas appliance, the color of the flame is a good indicator of incomplete combustion. The flame should always burn blue, not orange or yellow. If the flame is not blue, it may be a sign that the appliance needs adjusting or cleaning. Appliances should always be checked and adjusted by a qualified technician.

Natural gas fireplace logs are an exception to the blue flame rule. Most of these products are designed to be operated with a yellow or orange flame in order to achieve a more realistic appearance. Any time they are used, be sure to open the damper in the fireplace, unless the logs do not require an open damper, such as the case with ventless fireplaces.

## Natural gas ranges and stoves

Never use natural gas ranges or stoves for heating. Using them as a source of heat can cause dangerous levels of carbon monoxide (CO) to build up in your home or building.

Call Duke Energy at 513-651-4466 or 1-800-634-4300 if you notice a pilot flame suddenly burning much higher than normal or if the flame does not always burn blue.

## Natural gas water heaters

Set your natural gas water heater temperature to 120°F (low or warm) to help prevent accidental burns. Water heaters set at 140°F or higher pose a potential danger, especially to children and the elderly. It takes just five seconds to receive a third-degree burn from 140°F water. Refer to the owner's manual before setting the temperature on the water heater.

## Natural gas dryers

Keep the lint trap on your gas dryer clean and clear. Check your clothes dryer's exhaust duct, vent and hood cover (outside the house) periodically, removing any lint or obstruction.

## Keep flammables away from appliances

Never use or store flammable products such as gasoline, solvents or adhesives near a water heater or any other natural gas or electric appliance. In the right conditions, flammable vapors can travel undetected along the floor, aided by air vents. Keep all flammable products in tightly closed, approved containers, stored far away from all appliances and out of the reach of children. When you use flammable liquids, do so in an open, well-ventilated area, far away from any possible source of ignition.

## Flexible natural gas connectors

Flexible natural gas connectors are corrugated metal tubes used to attach gas appliances to a home or building's natural gas supply pipes. Some older, uncoated brass flexible gas connectors are still in use, and can corrode or break and cause a serious gas leak, fire or explosion.

If you have a natural gas appliance that is more than 25 years old, it is a good idea to have the gas connectors replaced.

**WARNING:** Moving an appliance to check the gas connector may cause the connector to break, resulting in a gas leak, fire or explosion. DO NOT attempt to check the connectors yourself. Instead, have a qualified technician inspect your appliances and, if necessary, replace the connectors for you.

## Carbon monoxide safety

When natural gas is burned it produces carbon dioxide and water vapor. Both products are usually harmless. But, the potential for toxic carbon monoxide occurs when natural gas is burned incompletely. This is why it is important to have natural gas appliances routinely inspected and serviced to ensure proper operation.

Another factor that may affect the safe operation of vents and flues is the availability of make-up air – fresh air that is used in the combustion process. You cannot expect flue products to go “up and out the chimney” if you do not allow air to enter the