

## Detecting a Propane Leak

### LEAKS AND THE SMELL OF GAS

Always be sensitive to the slightest gas smell. Learn to recognize the odor of propane gas. To become familiar with the smell of propane, call us for a Scratch-And-Sniff brochure, and ask to smell the propane when we fill your tank.

### WARNING SIGNS

Below are some warning signs of a gas leak. If you smell propane, no matter how strong or weak the smell, treat it as a serious gas leak.

**NOTE: If there is a gas leak, follow the Emergency Procedure located at the end of this report, which should be placed on or near your propane appliance.**

#### Examples of warning signs which may indicate a gas leak has occurred are:

- When the smell of gas lasts more than an instant after igniting stove-top burners.
- When the presence of a foul odor persists.
- When you cannot find the reason for the foul odor.
- What you think may be garbage, sewage, or a dead animal may be a serious gas leak.
- When you hear a hissing noise near a gas appliance, piping, or storage tanks and cylinders.

### ODOR FADE

**NOTE: Under rare conditions, the chemical odorant (usually ethylmercaptan) that gives propane its distinctive smell can "fade" or diminish in intensity. On rare occasions, a leak can exist and the gas may not have an odor.**

- Odor fade can occur when there is an underground propane leak. The movement of gas through the soil can filter out the odorant.
- Oxidation (a chemical reaction involving internal rust in the tank or cylinder) also causes odor fade. New and reconditioned tanks and cylinders that sit too long before being filled are prone to internal rust when moisture and air get inside.

Adsorption is another cause of odor fade. The odorant in leaking gas can adsorb (stick) on new or old building materials such as unpainted or untreated masonry, rough wall surfaces and on furniture fabrics and drapes, thus reducing the intensity of the odor. Adsorption of odorant can also occur on the inside walls of gas piping and static or periodically used propane storage containers and distribution systems.

### OTHER REASONS WHY YOU MAY NOT SMELL A LEAK

In addition to odor fade, physical conditions may prevent you from smelling a leak.

Some physical causes are listed below:

- colds, allergies, or sinus congestion;
- use of tobacco, alcohol, or drugs;

- cooking odors and certain foods you eat;
- taking certain medications;
- decline in ability to smell, especially for older people;
- prolonged exposure to the odor of propane; and
- musty or damp smells, such as in a basement.

The smell from a propane leak may not wake you when sleeping. If you are concerned that you may not be able to smell a propane leak, contact your family doctor.

**Note: As an added precaution avoid relying solely on your sense of smell by installing propane gas detectors.**

## TESTING FOR GAS LEAKS

All propane leaks are dangerous. Follow the Emergency Procedure found at the end of this report, which should be placed on or near your propane appliance.

If you suspect a leak, go to a neighbor's phone and call us to check your system for leaks. Your North Star Energy Service Representative is a trained professional.

**There are three ways to test for a gas leak:**

- **the sniff test,**
- **the bubble test, and**
- **propane gas detectors.**

**NOTE: As an added precaution, avoid relying solely on your sense of smell by installing propane gas detectors.**

### SNIFF TEST

Being heavier than air, leaking propane tends to collect initially in low areas. To check whether there is a leak using the sniff test, get down on your hands and knees and sniff close to the floor to smell for propane. **If you smell propane, DO NOT light a match.** Follow the Emergency Procedure at the end of this report, which should be placed on or near your propane appliance.

### BUBBLE TEST

**(This test should be performed by your trained propane service person.)**

The bubble test enables you to check for leaks by applying a leak detector solution, or thick soapy water, on all connections. The leak detector solution can be obtained from North Star Energy. Perform this test when installing and filling tanks or cylinders and any time you suspect a leak.

Apply leak detector solution, or thick soapy water, to the connections between the cylinder valve and regulator outlet and/or any other connections you suspect may be leaking.

Slowly open the tank or cylinder valve and watch for bubbles. If bubbles appear, close the tank or cylinder valve and tighten connections immediately (but do not over tighten).

Repeat steps 1 through 3 until the bubbles stop. If you cannot stop the bubbles, contact North Star Energy for service.

**NOTE: Some people believe that the smell of propane gas is a signal that their tank is nearly empty and should be refilled. When a tank is low you may get a momentary whiff of gassy smell when burners are ignited. However, if the smell of gas odor continues, you may have a serious propane gas leak. Any persistent gassy smell is your signal to follow the Emergency Procedure found at the end of this report, which should be placed on or near your propane appliance.**

## PROPANE GAS DETECTORS

The National Fire Protection Association and federal and state agencies responsible for regulating propane safety acknowledge that odorants added to propane do not provide 100% effective leak detection; on rare occasions a leak may not be detected by smell. Gas detectors, listed by the Underwriter Laboratories (UL) and others, can be used as an extra measure of safety for detecting leaks. Detectors that sound a loud alarm are now on the market at a reasonable price. In the event that a leak occurs while you are asleep, the alarm may assist you in becoming aware of the leak.

**BEWARE: Gas detectors are only an aid. YOU must always be responsible for ensuring your safety. If you smell any gas at all, you should follow the Emergency Procedure found at the end of this report, which should be placed on or near your propane appliance, even if your gas detector is not sounding an alarm.**

## INSTALLING PROPANE GAS DETECTORS

Carefully follow the manufacturer's instructions when installing gas detectors. North Star Energy will provide the name of a manufacturer upon request.

## EMERGENCY PROCEDURE FOR A PROPANE LEAK

If you smell gas in your house workplace or around any gas equipment or appliance, follow the emergency procedure below

- 1) Put out all smoking materials and other open flames.
  - a. Do NOT operate electric switches.
  - b. Do NOT light matches.
  - c. Do NOT use your phone.
  - d. Any spark in the area where propane gas is present may ignite the gas. This could include the spark of a light switch, telephone, fan, or refrigerator motor, and even static electricity from walking across a room.
- 2) IMMEDIATELY get everyone out of the building, vehicle, trailer, or area.
- 3) Close all gas tank or cylinder supply valves.
- 4) Use your neighbor's phone to call North Star Energy and the fire department. Do NOT re-enter the building, vehicle, trailer, or area until a trained service person advises it is safe to return.
- 5) Let the service person and firefighters check for escaped gas. Have them air out the area before you return.
- 6) Have the trained propane service person:
  - a. pressure check the system
  - b. repair the leak
  - c. turn on the gas
  - d. check all the gas appliances, and
  - e. relight the pilots on the appliances.
- 7) Re-enter the area only when the service person and firefighters say it is safe.