

# Sanitary Sewer Smoke Testing Frequently Asked Questions

## **What is the purpose of smoke testing?**

The purpose of smoke testing is to find potential points of inflow and infiltration in the public portion of the sanitary sewer system that could lead to high flows during storms and snow melt events. Smoke testing can also help locate the following:

- Buildings that have downspout, yard or foundation drains, and sump pumps
- Points of groundwater or surface water intrusion into the sewer
- Any cross connections between sanitary sewers and storm drains
- Defective sewer connections that could allow sewer gases into a building

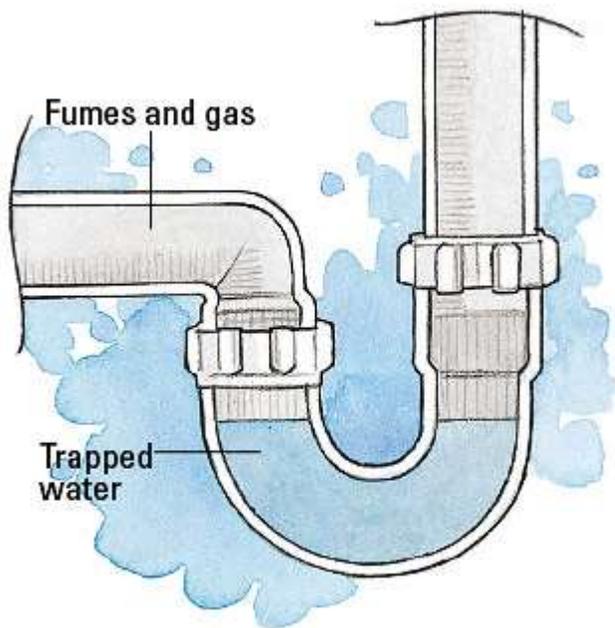
## **How does smoke testing work?**

Burgess and Niple has notified the occupants by fliers and will inform the local fire and police departments of where they will be conducting smoke testing each day.

During smoke testing, field crews blow air and smoke into the sanitary sewer system in the street and monitor where smoke escapes the system. The smoke under pressure will fill the main line as well as any connections and then follow the path of any leak to the ground surface, quickly revealing the source of the problem. For instance, if smoke permeates up through a yard, it indicates breaks in the sewer line. Only enough force to overcome atmospheric pressure is required, and smoke should escape from building roof vents. **If you have any doubt as to the source of the smoke in your home or yard, phone 911 immediately.**

## **How is a plumbing “trap” supposed to work?**

The “gooseneck” or “snake” section of your drain pipe is the “trap.” The trap allows water to fill that section of the pipe completely. Since vapor and gas cannot travel through water unless under pressure, this effectively “traps” the gas in the sewer portion of the pipe. The vent on your system—the portion of pipe protruding from the roof of the building—prevents the gas from becoming pressurized and allows it to escape outside the structure. These two systems function together to keep potentially harmful sewer gases from entering your structure. If there is no water in the trap, the trap is not functioning properly. We recommend dumping water into building drains and fixtures prior to testing.



2: Trap (photo for informational purposes only)

### **Why can't you tell me in advance exactly what date my home will be tested?**

This testing cannot be conducted during rainy periods or very windy conditions, so it can sometimes be delayed. Also, other activities in the project may take less time than anticipated, so it can sometimes be sooner than expected. The schedule may also shift if more or fewer defects than expected are located and need to be documented.

### **How long will the testing take?**

While crews might be in your area for a few hours, each actual smoke test setup takes approximately 15 minutes to complete. Most houses will only be within the testing area for one or two tests.

When you receive notice that smoke testing will take place, you should:

- Check to see that all drain traps under basins, washing facilities and floor drains contain water; simply flush toilets and run or pour water into all drains, including unused fixtures and floor drains.

**How will I know if smoke enters my house if I am not home during testing?** The purpose of the smoke test is to identify sources of unauthorized water entering the public portion of the sewer system. While it is also beneficial to note deficient plumbing connections on private property, this is not the main intent of the smoke test. It is the homeowner's responsibility to maintain private plumbing connections.

**Will rodents be smoked out?** No. However, the smoke may detect broken building sewers where there is a potential for rodent access.

**Can the smoke testing activate the smoke alarms?** Yes, smoke alarms may be activated during smoke testing. If possible, open windows and/or doors for ventilation. **If you have any doubts about the origin of the smoke, please call 911.**

**Can smoke plug the sewer?** There is no way smoke can plug the sewer. The smoke is made up of a vaporized substance.

**Where does the smoke appear?** Smoke may be seen coming from roof vents, building foundations, manhole covers or yard cleanouts. Smoke coming from roof vents on the roof of homes is a normal occurrence and indicates to the crews that smoke has filled all sewers. If you have any additional questions please call Burgess and Niple Inc. at (512) 626-9485

*Potential inflow/infiltration sources illustrated below. Smoke testing assists with locating underground connections and defects that are otherwise difficult to detect.*

