

Sanitary Sewer System Smoke Testing

Frequently Asked Questions

What is the purpose of smoke testing?

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

- Buildings that have downspouts, cellar, yard or basement drains, and sump pumps connected to the public sewer system
- Points of groundwater or surface water intrusion into the sewer
- Any cross connection between sanitary and storm drains
- Defective sewer connections that could allow sewer gases into a building



What are the benefits of smoke testing?

Smoke testing is the most efficient and cost-effective way to locate and identify where unauthorized water is entering the sanitary sewer system. The smoke is harmless and should dissipate after a few minutes. Smoke testing will also help identify plumbing leaks in buildings. Sewer gases can cause health problems for building occupants.

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 setups.

Is the smoke harmful?

NO. The smoke is not true smoke, but rather a mist containing a large percentage of atmospheric moisture that is highly visible at low concentrations. It will not harm your health or leave a stain and will disappear rapidly without leaving an odor. Since any vapor can be an irritant, direct contact with the smoke may cause minor respiratory irritation in some people.

If the smoke enters your home, it may make you cough, but the smoke is

- Non-toxic
- Non-staining
- Harmless to humans, pets, plants, food and material goods
- Creates no fire hazard

How does smoke testing work?

During smoke testing, field crews blow air and smoke into the sanitary sewer system in the street and easement, 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 will residents or businesses know when the Benbrook Water Authority is smoke testing?

Benbrook Water Authority will notify customers prior to smoke testing the portion of the sanitary sewer system that is connected to specific homes. Customers will be notified by door hangers. The door hangers will be distributed at least 24 hours prior to the smoke testing event. The schedule may also shift if more or fewer defects than expected are located. Smoke testing requires dry soil conditions, so smoke testing may be postponed several days due to rainfall. Benbrook Water Authority will notify the City Fire Department before each smoke testing event.



Will smoke testing of the sewers allow smoke to get into my home?

No, it should not, provided that your plumbing is installed and functioning properly, and provided “traps” are filled with water. Drains that are used frequently should be okay. If you are not sure, simply run water down the drain for a minute to ensure that the trap is not dry. It is important to locate dry traps as they could allow sewer gases to enter the home. Dry traps are most commonly found in floor drains that are used only during rare flood events or in unused fixtures. Please thoroughly check your home.

What does it mean if smoke enters my house?

If smoke enters your home during the test, it may indicate there are deficiencies in the plumbing that may allow potentially dangerous sewer gas to enter.

How may the smoke enter my house?

Since plumbing fixtures in your home or business are connected to the sanitary sewer system, there is the potential for the smoke to enter if the drains are not connected properly. This happens particularly under the following circumstances:

- The vents connected to your building's sewer pipes are inadequate, defective or improperly installed
- The traps under sinks, tubs, basins, showers and other drains are dry, defective or improperly installed
- The wax seal under the toilet is aged or defective
- The pipes, connections or seals in the wastewater drain system in and/or under your building are damaged, defective, have plugs missing or are improperly installed

What should I do if smoke gets into the house?

- Open windows to allow ventilation and note the location of the smoke emission; smoke should clear within a few minutes
- Call the number on the smoke testing notice or notify smoke testing personnel in the area
- Contact a licensed plumber to identify the defective fixture and repair

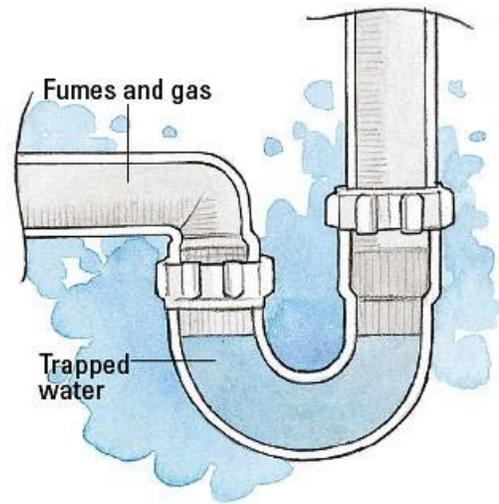
What should I do to prepare for smoke testing?

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.
- If there is an individual in your home or business who has respiratory problems and/or mobility limitations, or if you have any additional questions, contact the Benbrook Water Authority at 817-249-1250.

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 pouring water into building drains and fixtures prior to testing.



What happens if the inspection crews find a faulty sewer or lack of water traps in a home?

If smoke is seen within a house or structure, crews will attempt to notify the homeowners of these potential defects. Owners are responsible for repairs to private property plumbing.



Do I have to be home during testing?

You do NOT need to be home during testing.

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 sanitary sewer system. While it has the additional benefit of detecting 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 per Code.

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.

I am a pet owner and I will not be at home during the testing. Should I be concerned?

The smoke is not harmful to pets. If windows are left open, any smoke that enters the building should dissipate in a few minutes.

Can smoke plug the sewer?

No. There is no possibility that the smoke will plug the sewer.

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 the
Benbrook Water Authority
817-249-1250**