

## **NILES TO “SMOKE TEST” SEWER LINES**

During the months of October and November, the Village of Niles and consulting engineer Hey and Associates will conduct smoke testing of the sanitary sewer system in certain areas of the Village. A smoke test survey will assist our inspection crews in locating breaks and defects in our sewer system. This allows us to identify sources of unwanted rain water (inflow) and ground water (infiltration) that may be entering the Village’s sanitary sewer system. Storm water and ground water entering the sanitary sewer places an unnecessary (and expensive) burden on the pipes and the sewage treatment facility. It may also cause sewage backups in homes via improper connections such as roof downspouts, building foundation drains, and storm drains. The smoke seen coming from the vent stacks on houses or holes in the ground is non-toxic, non-staining, has no odor, is white to gray in color and creates no fire hazard.

Smoke should not enter your home unless you have defective plumbing or dried up drain taps. It is advisable for the home owner to pour a gallon of water into each floor drain prior to our testing, especially seldom used drains and floor drains in your basement, slab floor or garage. Notice will be provided to all homeowners prior to the testing by a door hanger, however is subject to change based upon weather conditions.

If smoke enters your home, there is reason to believe that dangerous sewer gases may also be entering your home or business. You should come outside immediately and notify our work crews. If you are not home and discover smoke when you return, please call us at 262-366-5879 so it can be properly documented.

**IMPORTANT!** If there is any individual in your home/business who has respiratory problems and is immobile, please notify us at 262-366-5879 prior to testing.

Attached, please find more information about the smoke testing process and areas to be tested.

## 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 sanitary sewer system that could lead to high flows during a storm. Smoke testing can also help locate:

- Points of groundwater or surface water intrusion into the sanitary sewers
- Any cross connections between sanitary and storm sewers
- Buildings that have downspout, yard or foundation drain connections to the sanitary sewer
- Sump pump discharges into a sanitary sewer

### **What happens during smoke testing?**

Prior to the test, the Village will notify fire and police department where we will be conducting sewer system smoke testing. During smoke testing, field crews blow air and smoke into the sanitary sewer system and monitor where smoke escapes the system. If smoke permeates up through a yard, it indicates a break in the sewer line.



### **How Does Smoke Testing Work?**

Smoke testing forces smoke-filled air through a sanitary sewer line. The smoke under pressure will fill the main line plus any connections and then follow the path of any leak to the ground surface, quickly revealing the source of the problem. Only enough force to overcome atmospheric pressure is required. As long as openings exist for the smoke to follow, smoke tests are effective, regardless of surface type, soil type and depth of lines.

### **Do I have to be home during testing?**

No. Inspection crews will not need to enter your home.

**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.

**Can smoke enter my house?**

As plumbing fixtures in your home or business are connected to the sanitary sewer system, there is a 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 buildings 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 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

**How long will the testing take?**

While crews might be in your area for a few hours, the actual smoke test takes approximately 20 minutes to complete for your street.

**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 approximately one gallon of 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, contact the testing firm at 224-234-8091 prior to testing.

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

The smoke is not harmful to pets. It may be a good idea to leave several windows partially open for ventilation in the unlikely event that smoke does enter the building.

**How will I know when testing will occur on my street?**

Door hangers will be distributed at each residence in the area approximately 48 hours prior to testing. These will provide information about the procedure and phone number of personnel to contact for more information. The test date is subject to change based upon weather conditions.

**Is the smoke harmful?**

No, this process is endorsed by the Environmental Protection Agency and has been safely used for more than 20 years. 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.