

What is Smoke Testing?

Smoke testing is used to detect any water other than wastewater entering the sanitary sewer system. This water could be coming from roof leaders, cross connections between the wastewater and stormwater systems, cleanouts, driveway and yard drains, damage to the wastewater system, loose joints in the wastewater pipes, etc. Smoke testing is an inexpensive and effective way to quickly identify inflow sources. Inflow can lead to sanitary sewer overflows (SSOs), which the Village needs to eliminate due to a NYS Department of Environmental Conservation Order on Consent and because they are bad for the environment.



Where smoke can come up from the sewer

How does Smoke Testing Work?

Crews position a blower at a sanitary manhole and blow smoke down into it. The smoke then travels down the sewer. If there are any openings along the way, some of the smoke will escape through the opening. Smoke may appear to be coming from holes in the ground or vent stacks on houses.



Smoke coming from vents in house roof

After blowing smoke into the line, the crew will look to see where smoke is escaping. Locations where smoke is coming from are identified with a white board and photographed.



Smoke coming from ground from damaged lateral



Smoke coming from storm drain cross connection

Is the Smoke Dangerous?

The smoke used has a slight odor and is not hazardous, toxic, or flammable. It is manufactured specifically for this purpose. The smoke may make you cough, but it is not harmful to your health. The smoke will not harm clothing, drapes, or furniture. The smoke is also not harmful to your pets or plants. Smoke that gets in buildings dissipates quickly and leaves no residue or stains. In the cases listed above, there is also a potential for sewer gas to enter the residence. Immediate action should be taken on the part of the homeowner to repair the problem.

Residential Notification

Before we smoke test the sanitary sewer system, we will notify residents of the dates we will be testing. Please read below to see what you should do prior to the start of the smoke testing.

Important Instructions for Residents Prior to Smoke Testing:

- When you are notified that smoke testing is going to occur in your neighborhood you should make sure that all traps under basins (including garage sinks), washing facilities, and floor drains have water in them. This can be done by pouring at least one gallon of water in them or running the faucet for at least 60 seconds. This will help prevent smoke from entering your home.
- If you have pets and are not going to be home when smoke testing is being conducted, it would be a good idea to leave several windows partially open for ventilation, should any smoke enter the building.
- If smoke gets into the house, contact the smoke testing crew or call the Village at (716) 897-1560. Open your windows and doors for ventilation and the smoke will soon dissipate.
- Smoke should not enter your house. If it does, it will be an indication of a defect in your plumbing. This defect could allow sewer gases to enter your house. Sewer gases can be a health hazard. The correction of these defects in your plumbing is the responsibility of the homeowner. A licensed plumber should be consulted to make the corrections properly.

Smoke Testing Results

After Smoke Testing, the Engineer will review the results of the smoke testing and determine what work needs to be done to the Village system to eliminate these smoke sources. Work could include adding cleanout caps, repairing or replacing laterals, or repairing or replacing sewer mains.

Smoke sources on private property will be turned over to the Village Code Enforcement Officer who will visit the homeowner and make them aware of these sources, and their responsibility to correct them. The Village will follow up with a letter explaining the problem. The Inspector will give a date when the smoke defect needs to be corrected by. Some corrections are easy to complete and could possibly be accomplished by the homeowner, such as disconnecting roof leaders or down spouts from the sanitary lateral or replacing cleanout cap that is broken or missing.



Smoke coming from Roof Leader

The Village may give the homeowner more time to correct more difficult corrections that require a licensed plumber. These corrections could include laterals that are cracked or have been invaded by tree roots, or rerouting of drainage. Fixing defects benefits everyone. It prevents SSOs, saving the Village and ultimately the sewer user from paying fines, and it is better for the environment.

Correcting I/I Sources from your Property

Cleanout Caps

Cleanout caps that are not sealed tight, cracked or broken, or missing can allow stormwater into the sewer system. Cleanout caps are easy to change. Cleanout caps can be purchased at your local hardware store.



Smoke coming out of Cleanout missing a cap

Roof Leaders

Roof leaders connected to the sewer system can add as much as 800 gallons of stormwater to the sewer system in a one inch rain event. This connection to the sewer system must be disconnected to prevent SSOs from occurring. Disconnection is easy. Cut the downspout. Insert horizontal spout out five feet away from the house. Plug the ground pipe.



Roof Leader disconnect from sewer system; Former connection to sewer system plugged

Ground

There is a possibility of a broken private sewer lateral where smoke comes up from the ground. These breaks can range from root intrusion, to a cracked portion of pipe or misaligned joints or an offset section of pipe. These can cause the lateral to plug or collapse. This would cause a sewer backup in your house. A licensed sewer contractor can televise your sewer lateral to see exactly where the problems exist.



Smoke coming up through ground from private lateral