



ROSS VALLEY SANITARY DISTRICT

2960 Kerner Blvd

San Rafael, CA 94901

(415) 259-2949 ~ rvsd.org

Sanitary Sewer System Smoke Testing Program

Smoke testing identifies locations where there are defects or improper connections in the sewer system, and is the industry standard and an efficient, cost effective way to locate and identify leaks and the source of storm water infiltration problems in the sanitary sewer system. The smoke manufactured specifically for testing is EPA endorsed, and is non-toxic, non-staining substance that generally considered to be harmless to humans, pets, food, and material items. The specific product has been used successfully for over 30 years throughout the United States.

Smoke Testing Importance

Testing is important because each year millions of gallons of excess water infiltrate sanitary sewers and can overload the system, pump stations, and treatment plant. The sanitary sewer system is designed for wastewater only from homes and businesses to flow into the District's wastewater collection system. The storm water drainage system is a separate network of pipes channeling storm water into creeks and waterways, and into the Bay. The infiltration of storm water in any amount into the sanitary sewer system can cause and contribute to the overflow of untreated wastewater during storm events and potentially result in environmental and property damage.

Frequently Asked Questions

- 1. Why is smoke testing done?** Smoke testing is the industry standard and an efficient, cost effective way to locate and identify leaks and the source of storm water infiltration problems in the sanitary sewer system. The specific product has been successfully used for over 30 years throughout the United States. The smoke manufactured specifically for testing is EPA endorsed, and is non-toxic, non-staining substance that generally considered to be harmless to humans, pets, food, and material items.
- 2. Why is smoke testing important?** Testing is important because each year millions of gallons of excess water infiltrate sanitary sewers and can overload the system, pump stations, and treatment plant. The sanitary sewer system is designed for wastewater only from homes and businesses to flow into the District's wastewater collection system. The storm water drainage system is a separate network of pipes channeling storm water into creeks and waterways, and into the Bay. The infiltration of storm water in any amount into the sanitary sewer system can cause and contribute to the overflow of untreated wastewater during storm events and potentially result in environmental and property damage.
- 3. How the smoke testing is conducted?** The smoke testing process involves isolating manageable sections of the sewer system and then blowing smoke through that section of the sewer system. If there are any defects in the main sewer pipes or private sewer laterals serving individual homes, or if there are illegal storm drain cross connections, the smoke will rise to the surface and reveal these problems. RVSD will carefully document their findings and assist any individual property owners as to the results.
- 4. As a homeowner, what do I need to do to prepare for smoke testing in my area?** Water can evaporate from the drain traps of unused plumbing fixtures. Therefore, the day prior to any testing, property owners should pour water down all drains of plumbing fixtures that are not regularly used. This will ensure that the P-traps are full to prevent smoke from entering the house or business through their sewage drainage system within the structure. P-trap refers to the shape of the drain pipe which holds water preventing air, odors and smoke from entering the structure.
- 5. Is the smoke harmful? What should I do if smoke comes out of a plumbing fixture in my house or office?** Although the product is generally considered to have no adverse health effects, individuals with pre-existing conditions such as emphysema or other heart/lung problems should take special precautions to either vacate the area during the test period, or if not possible, keep doors and windows open so that if, on the rare occasion, smoke does enter, it will dissipate rapidly. These individuals should also notify the District prior to testing so that any special precautions can be taken prior to any testing. If you see smoke in your home or office, open windows

for ventilation, and then notify one of the crew members doing the smoke testing in your area or call RVSD at 415-259-2949.

6. **Do I need to be home during smoke testing?** There is no need to be at home. Some sewer lines are located in backyard easements. Whenever these lines require investigation, members of our inspection crews will need access to the easement for the sewer lines and manholes.
7. **How long are the smoke tests?** The actual test for each home or business will take about 15-30 minutes. While testing, smoke may be seen around manhole covers, storm drains, roof vents and areas of defects. Smoke will not enter the home or business if all the plumbing is installed properly and is in good repair.
8. **What about pets?** The smoke is not harmful to pets. The smoke used is a non-toxic substance that is harmless to humans, pets, food, and material items. If smoke does enter the building, it will clear in a few minutes with proper ventilation.
9. **What do I do if smoke has entered my building?** If smoke does enter the interior of homes or offices, windows and doors should be opened as it will usually clear in 15-20 minutes. If residents are present during testing, they inform a member of the testing crew or call RVSD at 415-259-2949 if smoke has entered their building.
10. **Can smoke clog the sewer?** There is no way smoke can clog up a sewer. The smoke is made up of a vaporous substance similar to fog.
11. **What happens if you find a bad sewer or lack of traps in a building?** The District will determine what steps are necessary to remedy the problem. In most instances, the District will notify the property owner.
12. **Are Police and Fire aware of the smoke testing?** RVSD notifies Police and Fire prior to any testing with information on the locations and dates of areas to be tested. The District will update Police and Fire on a daily basis with the locations for each smoke testing period. In addition, RVSD also notifies each Public Works Department with the same information and updates.
13. **What happens after the test results are analyzed?** After all data is collected and organized, RVSD staff will begin notifying property owners if there appears to be a problem with either their sewer lateral, possible storm drain cross connection, or sewer leak inside the structure. Staff will work with each property owner too help them understand the issues and further, to make accommodations as to how these problems might be resolved. Simultaneously, if there are detected problems within our sewer system, the District will endeavor to have these repaired in a timely manner.
14. **Who do I contact for more information and/or a problem?** If you have any problems or concerns, please contact:
 - **Ross Valley Sanitary District at 415-259-2949, or**
 - **Visit our website at www.rvsd.org, or**
 - **Visit the smoke testing website at www.smoketesting.com**