

## **Sanitary Sewer System Smoke Testing Program**

The City of Bettendorf will be conducting smoke testing of the sanitary sewer system during the summer months over a 2-year period. This year testing will begin Monday, June 1, and residents of areas to be tested will receive notices on their doors prior to testing. McClure Engineering Company (MEC) has been contracted to perform the testing. MEC has provided engineering and environmental services in the State of Iowa since 1956 and has the expertise to make these tests successful.

### **Frequently Asked Questions**

**1. Why is smoke testing being 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 used successfully for over 30 years throughout the United States. The smoke manufactured specifically for testing is EPA endorsed, and is a non-toxic, non-staining substance that is generally considered to be harmless to humans, pets, food, and material items

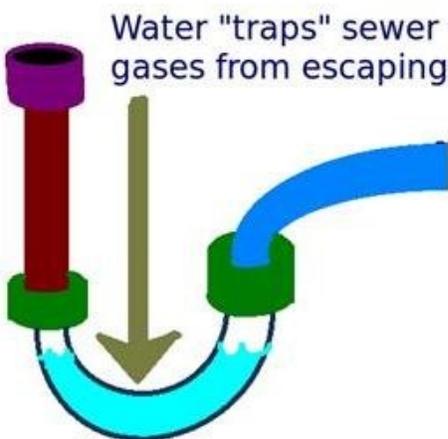
**2. Why is smoke testing important?** Testing is important because each year, millions of gallons of storm water infiltrates sanitary sewers and can overload the system, pump stations and treatment plant. The sanitary sewer system is designed for only wastewater from homes and businesses to flow to the treatment plant. The storm water drainage system is a separate network of pipes channeling storm water into creeks and waterways and directly into the river. 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 results in environmental and property damage.

**3. How is the smoke testing 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. MEC will carefully document their findings and assist the City in notifying, if necessary, individual property owners as to the results.

**4. When will the testing begin and how long will the project take?** Testing will begin on Monday, June 1, 2020. MEC will hand deliver the notices to those areas that will be tested in the initial week 24-48 hours prior to testing. This will continue for each area until all areas to be tested in 2020 are completed. Testing will take place for approximately 8 weeks.

**5. 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 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 residence.



**6. Is the smoke harmful? What should I do if smoke comes out of a plumbing fixture in my house?** 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. If you see “smoke” in your home, open windows for ventilation and notify the crew chief doing the smoke testing in your area. If you can not locate the on-site field staff, please contact Tim Higgins of McClure Engineering Company at 319-626-9090.

**7. Do I need to be home during smoke testing?** There is no need to be at home, but it may be helpful in the event that areas need to be ventilated.

**8. How long are the smoke tests?** The actual test on each home will take about 10-15 minutes. While testing, smoke may be seen around manhole covers, storm drains, roof vents and areas of defects. Smoke will not enter the interior of a home or business if all the plumbing is installed properly and is in good repair

**9. 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.

**10. What do I do if smoke does enter my building?** If smoke does enter the interior of homes, windows and doors should be opened as it will usually clear in 15-20 minutes. If residents are present during the testing, they should inform a testing crew member if smoke has entered the home.

**11. Can smoke clog the sewer?** There is no way smoke can stop up a sewer. The smoke is made up of a vaporous substance similar to fog.

**12. What happens if you find a bad sewer or lack of traps in a building?** The City will determine what steps are necessary to remedy any problems.

**13. Are Police and Fire aware of the smoke testing?** City of Bettendorf Police and Fire Departments have been notified with information on the locations and dates of areas to be tested. The contractor will update Police and Fire on a daily basis with the locations for each smoke testing period.

**14. What happens after the test results are analyzed?** After all the data is collected and organized, the Public Works staff will begin notifying property owners if there appears to be a problem with either their sewer lateral, possible storm drain cross connections, or sewer leaks inside the structure. Staff will work with each property owner to help them understand the issues. Simultaneously, if there are detected problems within our sewer system, the city will work to have these repaired in a timely manner.

**15. Who do I contact for more information and/or a problem?** If you have any problems or concerns, contact:

Luke Huggins, McClure Engineering Company – 319-626-9090

Bettendorf Public Works – 563-344-4088