



# SEWER TAP HAZARDS

SEE MORE INFORMATION AT [WWW.MEM-INS.COM](http://WWW.MEM-INS.COM)

**Warning: All trenches have the potential to collapse!** Plumbers, property maintenance personnel & homeowners put themselves at risk when performing water and sewer repairs without proper cave-in protection. Sewer taps are typically done beneath roads, in previously disturbed soils, and in cramped, and deep trenches. Sewers are usually deep, meaning a trench collapse could be deadly. Review this document with excavation crews and make sure they're protected from trench collapse.

Contact 811 or 1-800-DIG-RITE or log onto [www.mo1call.com](http://www.mo1call.com) to have underground utilities located before beginning excavation!

### SEWER TAP SAFETY INFORMATION:

- Traffic on nearby roads can cause vibration. Work with the road department to stop traffic.
- A competent person must inspect each trench for collapse hazards like running water and cracking.
- Existing sewer lines are in previously disturbed soil or gravel which can easily collapse. New sewer lines will eventually be worked into the sewer, which is in class B, previously disturbed soil. All sewer taps are performed in Class B or C previously disturbed or wet soil.
- Class B previously disturbed soil is very prone to collapse since it isn't compacted well.
- Class C wet soil is heavy and can easily flow or slide due to water saturation.
- Sewer taps can collapse and trap plumbers in tight, confined areas, often only the width of a bucket.
- Collapses in waist-deep trenches can trap workers at the knees or waist, causing bone fractures, internal bleeding, toxic crush syndrome and ultimately, death.
- Many sewers are between 10 and 20 feet in depth, requiring shoring or trench boxes. Deep trenches may require trench boxes that are stackable.
- Modular trench boxes or shoring may be needed when crossing utilities are encountered.
- Hammers and tools can create vibration.
- Keep equipment clear of overhead power lines.
- Do not allow coworkers in unsafe trenches!

### BELIEVE IN SAFETY: PROTECT YOURSELF!

- Don't risk it. A simple, quick job can lead to tragic ending if safety rules aren't followed.
- Taking extra time to do the job safely will protect your company and employees from the pain and expenses of a terrible incident.
- Don't make your employees work in unsafe trenches.
- Safety issues that could cause injury or death? Contact OSHA immediately at 1-800-321-OSHA.

### PLUMBING COMPANY OWNERS, SUPERVISORS AND EMPLOYEES MUST KNOW OSHA'S EXCAVATION SAFETY TRIGGER NUMBERS

- **2 feet** – Keep all tools, spoils, supplies and equipment back 2 feet back from the trench edge.
- **4 feet** — place a ladder or steps into the trench.
- **4 feet** — perform air quality testing where soil could be contaminated. (landfills, old dumps)
- **5 feet** — sloping, shoring or trench box is required.
- **6 feet** — guardrails or barriers are required to prevent employees from falling into the trench.
- **25 feet** – place a ladder within 25' of each worker.

- ✓ **COLLAPSES PROVIDE NO WARNING.**
- ✓ **YOU CAN'T JUMP OR MOVE OUT OF THE WAY.**
- ✓ **EMPLOYEES CAN BE TRAPPED IMMEDIATELY.**
- ✓ **TRENCHES CAN EXERT UP TO 15,000 LBS. OF FORCE ON THE BODY, CAUSING TOXIC CRUSH SYNDROME AND DEATH.**
- ✓ **NEVER ENTER AN UNSAFE TRENCH!**



**A MISSOURI PLUMBER WAS KILLED IN A PREVENTABLE TRENCH COLLAPSE WHILE PERFORMING A NEW SEWER TAP. THE TRENCH WAS 14 FEET DEEP, BUCKET-WIDE. IT TOOK 26 HOURS FOR THE FIRE DEPARTMENT TO REMOVE HIS BODY.**



*These advisory materials have been developed from national standards and sources believed to be reliable, however, no guarantee is made as to the sufficiency of the information contained in the material and Missouri Water and Wastewater Conference assumes no liability for its use. Advice about specific situations should be obtained from a safety professional. 09-07-2021 by MW*