

## SAFETY MATTERS CONSTRUCTION SERIES

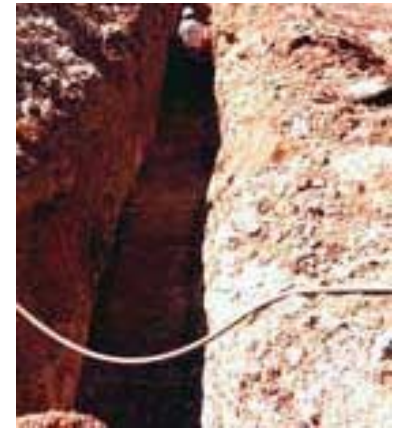


### TRENCHING AND EXCAVATION

## No Protective Systems

### Understanding the Danger

All excavations are hazardous because they are inherently unstable. If they are restricted spaces they present the additional risks of oxygen depletion, toxic fumes and water accumulation. If you are not using protective systems or equipment while working in trenches or excavations at your site, you are in danger of suffocating, inhaling toxic materials, fire, drowning, or being crushed by a cave-in.



### Avoiding the Hazards

Pre-job planning is vital to accident-free trenching; safety cannot be improvised as work progresses. These concerns must be addressed by a competent person:

- Evaluate soil conditions and select appropriate protective systems.
- Construct protective systems in accordance with the standard requirements [29 CFR 1926.652].
- Pre-plan: Contact utilities (gas, electric) to locate underground lines, plan for traffic control if necessary, and determine proximity to structures that could affect choice of protective system.
- Test for low oxygen, hazardous fumes and toxic gases, especially when gasoline engine-driven equipment is running, or the dirt has been contaminated by leaking lines or storage tanks. Insure adequate ventilation or respiratory protection if necessary.
- Provide safe access into and out of the excavation.
- Provide appropriate protections if water accumulation is a problem.
- Inspect the site daily at the start of each shift, following a rainstorm, or after any other hazard-increasing event.
- Keep excavations open the minimum amount of time needed to complete operations.

Safety Matters Construction Series information is extracted directly from OSHA safety materials. For additional information consult [www.OSHA.gov](http://www.OSHA.gov)