

## Safety Meeting Excavations



Company: \_\_\_\_\_ Presenter: \_\_\_\_\_ Date: \_\_\_\_\_

"150 Rescue Workers from 14 Agencies Work for 11 Hours at Dothan Trench Collapse" was the headline. On Sunday, May 24, 1998, an employee installing a sewer line was trapped beneath nine feet of earth when a shear wall collapse occurred. If the proper protective systems had been used in the trench in which this employee was trapped, this accident could have been prevented. The average employee is probably not aware of just how heavy soil actually is -- in fact, it weighs more than 100 pounds per cubic foot. One cubic yard weighs over a ton! If you are working in an unprotected excavation or trench and a wall caves in, your chances of survival are pretty slim.

Soils are classified by type, ranging from A (most stable) to C (least stable):

- **Type A soils:** Cohesive, with an unconfined, compressive strength of 3000 pounds per square foot or greater. Examples include clay, silty or sandy clay, and clay loam.
- **Type B soils:** Cohesive, and have an unconfined, compressive strength greater than 1000 but less than 3000 pounds per square foot. Examples include angular gravel, silt, and silt loam. Other examples include soil that would normally be Type A but is subject to vibration, as well as soil that has been previously disturbed, except soil that would otherwise be classed as Type C.
- **Type C soils:** Cohesive, with an unconfined, compressive strength of 1000 pounds or less per square foot. Examples include gravel, sand, loamy sand, and soil from which water is freely seeping.

There are many factors to be considered when determining the kind of protective system necessary to ensure employee safety. These factors include soil stability, the width and depth of the trench, weather conditions, and the location of the excavation. OSHA's Excavation Standard, 29 CFR 1926.650, requires that employees in excavations be protected from cave-ins by an adequate protective system, designed in accordance with the standard. A stairway, ladder, ramp, or other safe means of egress must be located in trench excavations that are 4 feet or more in depth. The ladders, etc. must be positioned so that no employee in the trench has to travel more than 25 feet to reach one [see 29 CFR 1926.651(c)(2)].

A competent person must inspect the excavation and adjacent areas daily for any kind of hazardous conditions that could possibly lead to a cave-in. Never work in an excavation where water has accumulated or is accumulating, unless proper precautions have been taken. SAFETY REMINDER: Before starting work each day, determine what precautions and equipment are required to perform the job safely.

Employee Signatures

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