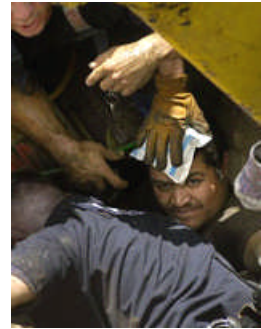




Crush Zones of Excavations - Preventing Cave-ins; the Number One Killer!

DEPARTMENT: _____ DATE PRESENTED: ____/____/2009

The weight of soil sloughing off the side of an unprotected trench can cause a **crushing blow** to an employee on the bottom, resulting in a serious injury or fatality. One cubic yard of soil weighs nearly five times the world weightlifting records. Could you push back 500 pounds of soil with your arms or legs or, more importantly, could you breathe or even survive under the weight? *Describe the type of excavation work your group does.*



Plain old dirt is so heavy that when you get caught under it, you do not have the strength to move or breathe as the dirt presses against your chest. Think about it! That's why trenching work needs special protective systems—so workers can go home safe and healthy at the end of the day.

Are workers on our jobsites only minutes, or perhaps even seconds, away from injury or death? Thirty seconds after a worker heeded an order from an OSHA compliance safety & health officer (CHSO) to get out of an un-shored, un-sloped trench in Texas, the wall near where he had been standing collapsed. Five minutes after a CHSO in Illinois requested that an employee leave an unprotected trench that was 6 feet deep and three feet wide, the wall caved in. *Describe the protective systems you most often use; sloping trench shields etc.*

In these near-miss trench events--OSHA inspectors have been the heroes. Why don't YOU be the hero? After putting a protective system into place, management must designate a "competent person"—someone trained to recognize hazards and authorized to take prompt action to correct them—to inspect the site daily or more often if conditions change. They also must take specific steps to protect workers involved in excavation work who are exposed to falls, falling loads, and mobile equipment. *Tell your group who the competent person is.*

ACCIDENT PREVENTION RECOMMENDATIONS

1. Employers must instruct employees on how to recognize and avoid hazardous conditions and on regulations applicable to the work environment (29 CFR 1926.21(b) (2)).
2. Inspect the site daily for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions.
3. Excavated materials must be effectively stored and retained at least 2 feet from the edge of the excavation.
4. The employer must ensure that the walls or side of trenches in unstable or soft material 5 feet or more in depth, be shored, sheeted, braced, sloped, or protected in some manner to prevent cave-ins and to protect employees required to work within them.
5. Excavations subjected to vibrations from traffic, require extra precautions to prevent cave-ins
6. Prevent water accumulation whenever possible
7. Ladders must be provided as a means of exit when employees are in trenches 4 or more feet deep

Workers must be taught to stay out of the **Crush Zone**, any place where uncontrolled forces can trap you under or between.