



# Weekly Safety Meeting

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## Excavation and Trenching Dangers

An excavation is any man-made cut, cavity, trench, or depression in an earth surface formed by earth removal.

A trench (trench excavation) is a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet.

It is important to understand the risks associated with excavations.

- Between 100-400 people are killed per year in excavations;
- 50% of all excavation fatalities are rescuers;
- There are an estimated 10,000 entrapments each year; and
- For every death in a trench, one person is crippled and can never work again, and two people cannot return to the same job.

### Dangers:

- Cave-ins pose the greatest risk and are much more likely than other excavation-related accidents to result in worker fatalities;
- Other potential hazards include falls, falling loads, hazardous atmospheres, and incidents involving mobile equipment;
- One cubic yard of soil can weigh as much as a car;
- An unprotected trench is an early grave;
- Do not enter an unprotected trench; and
- To avoid these hazards, a workplace must “maintain” order throughout a workday. Although this effort requires a great deal of management and planning, the benefits are many.

### Competent Person:

A competent person is an individual, designated by the employer, who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to workers, and who is authorized to take prompt corrective measures to eliminate them.

Under the Excavation standards, tasks performed by the competent person include:

- Classifying soil;
- Inspecting protective systems;

- Designing structural ramps;
- Monitoring water removal equipment; and
- Conducting site inspections.

### **Access and Egress:**

OSHA standards require safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations 4 feet or deeper.

These devices must be located within 25 feet of all workers.

### **Protective Systems:**

OSHA generally requires that employers protect workers from cave-ins by:

- Sloping or benching the sides of the excavation;
- Supporting the sides of the excavation; or
- Placing a shield between the side of the excavation and the work area.

### **General Excavation and Trenching Rules:**

- Keep heavy equipment away from trench edges;
- Identify other sources that might affect trench stability;
- Keep excavated soil (spoils) and other materials at least 2 feet (0.6 meters) from trench edges;
- Know where underground utilities are located before digging;
- Test for atmospheric hazards such as low oxygen, hazardous fumes, and toxic gases when > 4 feet deep;
- Inspect trenches at the start of each shift;
- Inspect trenches following a rainstorm or other water intrusion;
- Do not work under suspended or raised loads and materials;
- Inspect trenches after any occurrence that could have changed conditions in the trench; and
- Ensure that personnel wear high visibility or other suitable clothing when exposed to vehicular traffic.

### **Remember:**

You are the one going into the hole, so check the methods being used to protect the excavation. Prior to climbing down the ladder, check the spoil pile location and equipment that is near the excavation.

Before you enter ask yourself if you are comfortable with the excavation, its protection, and the nearby surroundings.

***ENTERING AN UNPROTECTED EXCAVATION OR TRENCH COULD BE THE  
LAST THINGS YOU EVER DO!!***

### Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests