



TRENCHING AND EXCAVATION

Working in a trench or excavation is one of the most hazardous jobs in construction. Hundreds of people die and thousands are seriously injured each year due to cave-ins. Before entering a trench, the competent person at the jobsite must inspect the trench and the protection system to ensure that the trench is safe to enter. There are recorded incidents of people buried and killed in trenches 3- to 4-ft. deep, so even shallow trenches must be inspected by a competent person before entering. To ensure all workers understand the hazards associated with trenching and excavation, follow OSHA 1926.650 safety standards.

Common Hazards:

- Cave-ins – The leading cause of fatalities.
- Falls – Into trenches or from equipment.
- Falling Loads – Tools, materials, or equipment.
- Underground Utilities – Risk of explosion or electrocution.
- Hazardous Atmospheres – Toxic gases or low oxygen.
- Mobile Equipment – Operating near trench edges.
- Water Accumulation – Increases risk of collapse.

Safety Requirements

1. Competent Person (1926.650)
 - Must inspect excavations daily and after weather events.
 - Must be able to identify hazards and take corrective action.
2. Utility Location (1926.651(b))
 - Identify underground utilities before digging.
 - Use 811 Call Before You Dig service.
3. Access and Egress (1926.651(c))
 - Excavations 4 feet or deeper require ladders, ramps, or stairs.
 - Must be within 25 feet of workers.
4. Protective Systems (1926.652)
 - Required for excavations 5 feet or deeper unless in stable rock.
 - Types include:
 - Sloping
 - Benching
 - Shoring
 - Shielding (Trench Boxes)
5. Spoil Piles and Equipment (1926.651(j))
 - Keep materials and equipment at least 2 feet from edges.

6. Atmospheric Testing (1926.651(g))

- Required in excavations greater than 4 feet or if hazardous atmosphere is suspected.

7. Water Accumulation (1926.651(h))

- Workers must not enter excavations with standing water unless protected.

8. Mobile Equipment (1926.651(f))

- Use warning systems if operators can't see excavation edges.

Safety Tips

- Call 811 before digging to locate underground utilities.
- Enter only trenches that have been sloped at the proper angle, shored, or shielded.
- Check regularly for hazardous materials and oxygen levels in the trench.
- Never work under suspended loads.
- Inspect trenches after rainstorms or water intrusion.
- Use warning systems for mobile equipment near trenches.
- Ensure personnel wear high visibility clothing when exposed to vehicular traffic.

About half of the people killed each year in trenches and excavations die trying to rescue someone else who has been buried by a cave-in. Call 911 for help. Do not attempt a rescue, unless you have been properly trained in excavation-rescue techniques.

GCSC RESOURCES

SAFETY TRAINING

6:00am – 3:00pm csr@mygcsc.com

Course Code	Course
08EXAW	Excavation Awareness
08TREXC	Trenching & Excavation Competent Person
08TREXCS	Trenching & Excavation Competent Person - Spanish

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