

Competent Person Trenching

This workshop is intended for what OSHA calls a “competent person”—that is, a person who is knowledgeable about trenching operations. It provides important background information about trenching safety to support the competent person’s experience.

What Is a Competent Person?

- Identifies trench hazards
- Is authorized to take prompt corrective measures to eliminate hazards
- Is responsible for daily trenching inspections
- Is knowledgeable about soils, protective systems, and OSHA rules

As a “competent person,” you will be able to:

- Recognize trenching hazards
- Choose protective systems for trenches
- Identify hazards and preventive measures for activities associated with excavation

Statistics

- Over 30 workers die and close to 1,000 workers have lost-time injuries per year. Note that 75 percent of fatalities at excavation sites are the result of cave-ins.
- The most common causes of trenching and excavation accidents include:
 - No protective systems in place;
 - Failure to inspect the trench and protective systems
 - Unsafe placement of the spoil pile; and
 - Unsafe entry and exit to and from the trench.



Our mission is to help employers reduce injury to employees through education and training, reduce pain and suffering, and reduce costs resulting from accidents in the workplaces of North Carolina.

Fee Schedule

\$34.95 per person

(15 person minimum charge requirement)

For more information, contact your area NCIC Safety Consultant, [Dennis Parnell](#)



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Certificate Course

Competent Person Trenching

4-Hour Course



**North Carolina Industrial Commission
Safety Education**

<http://www.ic.nc.gov/safety.html>

Compliance With OSHA Standards

Compliance with OSHA's Trenching & Excavation standards saves lives, and can help your company avoid costly OSHA citations & penalties. OSHA's excavation standards require your company to have a **Competent Person** on the excavation site during critical operations, and all employees trained in the hazards of trenching & excavation work.

Topics covered during our on-site workshop include:

- Requirements for a "Competent Person" on excavation sites
- How to properly conduct soil tests (visual & manual)
- Understand OSHA regulations for shoring, sloping & benching, and trench boxes
- Identify and control hazardous atmospheres lurking inside of trenches
- Locate and work safely around potentially deadly underground utilities
- How to handle OSHA inspections at your trenching & excavation site.

All training is documented and certification of training is provided per OSHA regulations. Plus, each trainee receives a personalized course completion certificate and pocket card. This course can be customized to address the needs of our customers who must comply with NC OSHA safety standards, as well.

Receive your certificate and pocket card upon successful completion of course!

Hazards and Protecting Yourself and Others

Most trenches are dug to lay pipe or place manholes, conduit runs, or footings. It is easy to try to work fast in a trench and get out without taking the correct safety steps. **Don't.** Each year, more than 30 construction workers are killed in trenches.

The Hazards

A trench is a *confined space* with many special problems. **Most deaths in trenches are from cave-ins.** Other risks are falls, electrocution, being struck by falling objects (or a backhoe), and bad air. Bad air can hurt your breathing, help cause a fire, or poison you. **Many workers die trying to rescue other workers in trenches.**

Protect Yourself

OSHA says your employer (the contractor) must train you about the hazards and how to protect yourself.

If a trench will be dug, the contractor must name a competent person.

(OSHA says a competent person knows the OSHA excavation standard*, is trained in soil analysis and protective systems, can identify hazards, and has authority to stop work right away.) *The OSHA trench standard is in the Code of Federal Regulations: 29 CFR 1926.650, 651, and 652. The confined space standard is 29 CFR 1910.146

Call Dennis at
919-218-3000

If bad air is suspected...

OSHA says there must be a rescue plan and rescue equipment on the job site. Rescue teams must have special training. The best way is to follow OSHA rules for rescues from confined spaces.

If bad air is expected, a competent person must test the air:

- OSHA says the air must have 19.5 to 23.5% oxygen.
- OSHA says substances that can burn or explode — like gasoline or methane — must be at less than 20% of the lower explosive limit (or lower flammability limit). (The industry says 10%.)
- Check the air for toxics like chlorine, carbon monoxide, sewer gases, and hydrogen sulfide.

These **toxics can kill.** Carbon monoxide has no smell. Hydrogen sulfide smells like rotten eggs.

The *competent person* will decide if blowers can keep the air safe.

A competent person must check the soil. This check helps the *competent person* choose the right worker-protection system.

- A trench can be in stable rock, or type A, type B, or type C soil. Stable rock and type A soils are the safest. Most soils are type C. Sand and trenches with water are type C soils.

- **Do not work in a trench that contains water** until the *competent person* checks if it is safe.

- Clay can be type A, B, or C soil; it depends on how much water is in the clay. **Many cave-ins happen in clay, because people think it looks safe.**

Don't see a topic you need? Let us know and we'll develop a program!