

OSHA's 1926.651 - General Requirements...

Common Sense Steps to Insure Worker Safety

By David V. Dow, President, TrenchSafety and Supply, Inc.

Editor's Note: This is the second in a two-part series that discuss the General Requirements Section of OSHA's Subpart P regulations. The first installment was published in the November 2000 issue of Excavation Safety News. If you would like a copy of that issue, please let us know.

The General Requirements Section of OSHA's Subpart P provides a number of common-sense steps to help insure worker safety. As with any OSHA Standard or other safety procedure, it is important to always remember that these are the minimum requirements, to insure safe job sites.

EMERGENCY RESCUE EQUIPMENT

Such equipment must be available when a hazardous atmosphere exists or could reasonably be likely to exist. Employees entering confined spaces must be properly trained.



Firefighters and paramedics rescued a Mid-South construction worker who fell into a sanitary sewer manhole while making a tie-in. The worker was descending into the manhole when a step broke, causing him to fall approximately 15 feet. There was no fall protection or contractor-supplied rescue equipment at the site. Fortunately, the worker was not seriously injured.

Harnesses and life lines are required whenever employees enter bell-bottom pier holes and other deep confined spaces. Life lines must be attended at all times.

WATER ACCUMULATION

Water must be controlled to prevent cave-ins. Methods for controlling vary with each situation. Employees are not permitted to work in trenches where accumulation exists unless:

- Special support systems or shields are used to protect employees from cave-ins,
- Water removal equipment is used and monitored by a Competent Person to prevent water accumulation, and
- Safety harnesses and life lines are used to protect employees.

Surface water must be diverted or controlled.

The Competent Person must inspect the trench after each rain storm.

STABILITY OF ADJACENT STRUCTURES

The objective is to protect employees from cave-ins.

- A support system, such as shoring, bracing, or underpinning, must be used to support structures that may be unstable due to excavation operations.
- Excavating below the base or footing of a foundation or wall is not permitted unless:
 - > A support system is provided to ensure the stability of the structure or
 - > The excavation is in stable rock (Note: very rare), or
 - > The operation is approved by a registered professional engineer.

See "Common Sense" on page 2...

“Common Sense” from page 1

- Support systems must be provided for sidewalks, pavements, and other structures that may be affected by excavation operations.

PROTECTION OF EMPLOYEES FROM LOOSE ROCK OR SOIL

Employees must be protected from being struck by soil or rocks that are falling or rolling from the edge and face of a trench. Spoils and equipment must be set back at least 2 feet from the edge of a trench.



OSHA's standards are designed to protect the safety of workers. Contractors and others involved in construction projects also have a responsibility to protect the safety of the general public. That's another important reason to properly barricade all excavations. In some instances, it might even be necessary to backfill or "plate" the excavation if there is a lot of pedestrian traffic or children in the area.

FALL PROTECTION

It is required for walkways and bridges over trenches that are least 6 feet above lower levels and are greater than 30 inches in width. Bridges and walkways must be equipped with standard guard rails and toe boards. Additional fall protection may also be required.

REMOTELY LOCATED EXCAVATIONS

Examples are wells, pits, shafts, trenches, other excavations, etc. They must be backfilled, covered, or barricaded.

INSPECTIONS

A Competent Person (*see sidebar at right*) must make all inspections.

At the beginning of this article, we said that these were all "common sense" items. But keep in mind, *they are also the law.*

“Competent Person” Responsibilities

OSHA defines a "Competent Person" as "one who is capable of identifying existing or predictable hazards in surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. When applied to trenching or excavation operations, the Competent Person must have specific training in, and be knowledgeable about, soil analysis, the use of protective systems, and requirements of the standards." Note that a Competent Person must be on every job site when workers are exposed in a trench or excavation.

RESPONSIBILITIES

- Authority to stop work – [1926.651(k)(2)].
- Inspections of excavations for indications of possible cave-ins, failure of protective systems, hazardous atmospheres, and other hazardous conditions – [1926.651(k)(1)].
- Inspections should be prior to the start of work, as needed throughout the shift, after rainstorms, and after other hazard-increasing occurrences – [1926.651(k)(1)].
- Testing for hazardous atmospheres when such atmospheres exist or are reasonably likely to exist – [1926.651(g)(1)(i)].
- Inspections of material or equipment, if damaged, to determine if usable – [1926.652(d)(3)].
- Monitoring of water removal equipment and operations – [1926.651(h)(2)].
- Visual and manual tests of soils to determine type – [1926 Appendix A section (d)(1)(i)-(vii)].

Any way you look at it, being a Competent Person is a big responsibility.

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This newsletter provides a brief overview of safety regulations and systems. It is not intended to provide specific legal or engineering advice. Please refer to OSHA CFR 29, Part 1926, Subpart P, "Excavation and Trenches," to other governmental regulations, and to manufacturers' instructions for specific information.

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Signs of Construction



OSHA's General Industry standard requires that employers inform employees of the existence, location, and

dangers of confined spaces. This can be accomplished, in part, by posting danger signs at entrances.



An open trench is identified at this power plant project with signage and barricades.

This particular Mid-South contractor posts a number of job-site safety rules on a large sign near the entrance to the site.



Overhead electrical lines can present a hazard, particularly with dump trucks, cranes, track hoes, or rubber-tired and backhoes.

Underground utilities must be located prior to the start of construction.

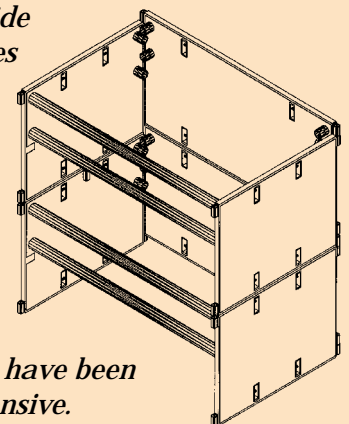


The correct personal protective equipment is required. Hard hats are necessary on just about every construction project. Safety glasses and reflective vests may also be required.

TrenchSafety Solutions...



TrenchSafety recently supplied multiple trench shields to a contractor working on a water-proofing project in Little Rock. These shields were arranged to provide protection on three sides of the excavation, as the drawing and picture illustrate. Because of utilities, sidewalks, streets, etc., it would not have been possible to slope. Sheet piling might have been an option, but it would have been significantly more expensive.



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Training Schedule - Spring 2001

More than 5,000 people have attended TrenchSafety's training programs since they began five years ago. Another valuable series of seminars is coming up at locations throughout the Mid-South.

"COMPETENT PERSON" TRAINING

OSHA requires that a "competent person" be on your construction or maintenance site whenever workers are exposed in an excavation.

Applied to trenching or excavation operations, the competent person (CP) must have specific

"Competent Person" Classes

Thursday, Mar. 29 - Little Rock

Thursday, Apr. 19 - Memphis

Thursday, May 3 - Fort Smith

Tuesday, May 8 - Jackson, MS
(in conjunction with AGC Miss. Chapter)

Thursday, May 10 - Little Rock

Thursday, June 7 - Memphis

training and be knowledgeable of the requirements of the standard, soils analysis, and use of protective systems.

In addition, the CP must have authority to take immediate corrective measures to eliminate unsafe conditions. TrenchSafety's Competent Person Training Program, approved by the National Utility Contractors Association (NUCA), is designed to help you meet OSHA's training requirements.

These one-day sessions run from 8:30 a.m. to 4:30 p.m. Cost is **\$85 per person**, including lunch.

Each student receives an instructional workbook (which serves as a valuable reference later) and a wallet card and certificate from NUCA indicating successful completion of the class.



"CONFINED SPACE" TRAINING

OSHA also mandates that employers provide a safe workplace for their employees. Each year,

thousands of workers who enter confined

"Confined Space" Classes

Thursday, May 24 - Memphis

spaces—manholes, pipelines, sewers, utility vaults, etc.—face significant risk of injury or death because of limited openings, poor ventilation, or hazardous atmospheres.

Our "Confined Space Entry" training is designed to improve awareness of such hazards,

"Some of our team recently attended your Competent Person class, and were very complimentary. Several commented that we should require all our subcontractors take this course."

Buddy Riedmueller
Safety Director, CDI Contractors, LLC
Little Rock, Ark.

and provide managers and confined-space entry supervisors

with the basic information to establish a confined-space safety program. Also, a wide variety of information on protective devices is presented.

The one-day session begins promptly at 8:30 a.m., and ends at 2:30 p.m. The cost is **\$85 per person**, and includes lunch, an instructional workbook, and a wallet card and certificate from NUCA signifying completion of the course.

Other Training Classes

We also offer classes on the safe and efficient use of laser-controlled motorgraders and asphalt pavers. Four hours of classroom time and two hours of actual "hands-on" use. Call today for details.