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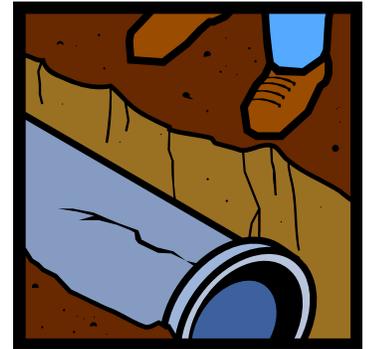
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## Safety Discussion – Trench cave-ins

This quarter's safety discussion focuses on underground safety, in particular the controls that are available to help reduce the chance of being injured or killed by a trench cave-in.

Subpart P of 29 CFR 1926 OSHA Construction Industry Regulations details three protective systems to help prevent trench walls from caving in and to protect the workers in the event of a cave-in. These systems are Sloping, Shoring, and Shielding; the three S's. If you are not protecting your workers with one of these systems they could be injured or killed.



The Competent Person, after evaluating the soils and determining the soil type, must select a protective system before allowing anyone to enter the trench. There are three soils types described in Appendix A of Subpart P. These are Types A, B, and C. The Competent Person is responsible for performing both manual and visual tests on the soil to determine the correct soil type. Sounds like this Competent Person has a lot of responsibilities, doesn't it? Make sure your Competent Person has adequate training, experience, and authority to perform the required tasks. The OSHA excavation standards can be found online at [www.osha.gov](http://www.osha.gov).

## Large Loss Review – Trench Fatality



On September 18, 2009 a 53 year old worker in Minnesota died in a trench cave-in. The worker was on his hands and knees at the bottom of an 8 foot deep trench installing a water line on a residential construction site. The trench walls were about 4 feet apart and cut vertically. There was no shoring or trench box being used to protect the worker. The spoils pile was placed within inches of the edge of the trench.

The worker was reportedly in the trench for about 5 minutes when a co-worker heard a whooshing sound. Others attempted to dig the worker out with a shovel, but it took over an hour to reach him. When they finally reached him, the worker was pronounced dead at the scene. This tragic loss could have been prevented. Sloping the trench walls to the appropriate angle or providing support to the trench walls with shoring could have prevented the cave-in. A trench box would have protected the worker in the event the trench walls failed. He left behind a wife, two children, and one grandchild.

Trench cave-ins kill workers almost every week in the US. Often there are multiple fatalities when co-workers jump in to help rescue, only to be killed by a second or third cave-in. Even if you are only buried waist deep, the chances for severe injuries are substantial.

## Tool Box Meeting – It's not just dirt!

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Take 10 or 15 minutes with your crew and review some of the manual tests and visual observations commonly used to classify soils. Remember, the Competent Person must perform at least one manual and one visual test to classify the soil. Type A soils are the most stable, while Type C soils are the

least stable. Ask your crew the following questions to test their soil savvy (answers on last page).

### Visual Analysis

- a) Which type of soil generally stays in clumps when excavated? Granular or cohesive?
- b) Tension cracks in the excavation wall or surfaces adjacent to the excavation may be evidence of moving ground. True or false?
- c) A pipe crossing through an excavation means the soil has been previously disturbed. True or false?
- d) Water flowing into a trench will require the soil to be classified as Type C? True or false?
- e) Over the weekend, the air temperature at the job site dropped from 35 degrees to 10 degrees. The Competent Person needs to re-evaluate the soil / trench. True or false?

### Manual Analysis

- f) Moist soil that can be rolled into a small ball and then a 1/8 inch diameter, 2 inch long thread, and held at one end without tearing would be considered cohesive. True or false?
- g) Type A soils can be readily indented by your thumb, but can be penetrated only with very great effort. True or false?
- h) A device called a pocket penetrometer can identify soil types with just one sampling. True or false?
- i) A soil that is dry and crumbles on its own or under moderate pressure into individual grains or fine powered is granular. True or false?
- j) If no manual or visual soil analysis is performed by a Competent Person the soil must be classified as Type C. True or false?

So how did your crew do? This is only a small sampling of the soil classification knowledge required to be considered a Competent Person for excavation. Additional excavation training may be needed. There are a number of construction safety and health resources listed at the end of this newsletter.

Looking for some free safety meeting topics?

[www.toolboxtopics.com/](http://www.toolboxtopics.com/)

## OSHA Speak – Am I “competent”

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If an OSHA compliance officer asked if you were the Competent Person for excavation on the job site, what would you say? Saying yes implies to OSHA that you have a certain level of training and authority to act. OSHA defines a Competent Person as “...one who is capable of identifying existing and predictable conditions in the surroundings and work areas which are unsanitary, hazardous, or dangerous and who has authorization to take prompt corrective action.” To be considered competent for excavation may require you to have specialized training, years of experience, or both. It is important to remember that competency must be demonstrated. Just because your name is on a card that states you attended training does not make you competent. You must be able to prove it.

Being considered competent in one area of construction safety does not automatically make you competent in all areas. Would you want a person competent only in fall protection evaluating and classifying the soil and selecting the protective system for a trench you will be working in?

## 1st Quarter 2010

### Safety Products – Trench protective systems and air quality monitoring

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Don't get buried alive. There is a trench shield or shoring system for all applications.

[www.americanshoring.com](http://www.americanshoring.com)  
[www.epi-shields.com](http://www.epi-shields.com)  
[www.gme-shields.com](http://www.gme-shields.com)  
[www.speedshore.com](http://www.speedshore.com)

Trenches are confined spaces. Test the air before you enter. Hazardous atmospheres may exist.

[www.msanorthamerica.com](http://www.msanorthamerica.com)  
[www.rkiinstruments.com](http://www.rkiinstruments.com)  
[www.draeger.com](http://www.draeger.com)  
[www.allgasdetectors.com](http://www.allgasdetectors.com)



### The To Do List

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Throughout the year we often have great ideas about how to get organized, how to work more safely, or how to reduce our exposure to loss. Maybe we write a note to ourselves and put it in our in-box or on a Post-It note on our computer monitor. Here are some loss reduction suggestions for your in-box that will help you manage your exposures.

#### January 2010

- Inventory the glove box of all company vehicles. Make sure you have a current insurance ID card, accident reporting kit, disposable camera, and a couple pens.
- Would your business lose money if your top engineer or salesperson was unable to work for 30 days? Take a walk through your office areas and identify slip and fall hazards that could result in an injury. Look for extension cords in walkways, obstacles on stairs, throw rugs with rolled edges, carpets with worn spots or bumps, liquids on hard surfaced floors, uneven transition areas between rooms, etc. You will be surprised how many hazards you will find.
- It only takes an hour or two. Test all alarms systems on your property – smoke, fire, burglar, carbon monoxide, sprinkler system, etc.



#### February 2010

- Take a trip out to the shop and inspect your rigging equipment. Be sure to include all chains, hooks, shackles, nylon slings, etc. Keep records of your inspection to help stay in compliance with federal regulations.
- Backup your critical business data on a regular basis and store backups at a secure off site location. Scan paper records that contain information essential to your ability to do business.
- Get some free outside loss prevention advice. Invite your local fire department, police department, insurance agent, or loss control professional to tour your place of business.

#### March 2010

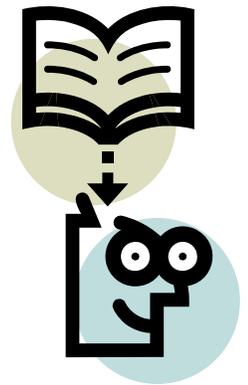
- What is the cost to replace an excavator, low boy trailer, and tractor? Review the driver files for your commercial drivers. Have they had any serious moving violations? Make sure your files are up to date and contain all the records required by the Department of Transportation.
- Do the subcontractors you hire work safely? Take a look at your subcontractor's OSHA violation history and incorporate this into your subcontractor pre-qualification process. You can find their OSHA violation history on the OSHA web site at: <http://www.osha.gov/pls/imis/establishment.html>
- You may get dirty on this one. Photograph and record the serial numbers for all your construction equipment and major tools.

Let's get all these in the out-box before next quarter.

## Construction Safety and Health Training Resources

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Many standards promulgated by the Occupational Safety and Health Administration (OSHA) explicitly require the employer to train employees in the safety and health aspects of their jobs. Other OSHA standards make it the employer's responsibility to limit certain job assignments to employees who are "certified," "competent," or "qualified"-meaning that they have had special previous training, in or out of the workplace. The term "designated" personnel means selected or assigned by the employer or the employer's representative as being qualified to perform specific duties. These requirements reflect OSHA's belief that training is an essential part of every employer's safety and health program for protecting workers from injuries and illnesses. Listed below are a few national construction safety resources that may be able to assist with your training needs.



Associated General Contractors (AGC) [www.agc.org](http://www.agc.org)  
Associated Builders and Contractors (ABC) [www.abc.org](http://www.abc.org)  
The Construction Safety Council [www.buildsafe.org](http://www.buildsafe.org)  
National Safety Council [www.nsc.org](http://www.nsc.org)  
Occupational Safety and Health Administration [www.osha.gov](http://www.osha.gov)  
Mine Safety and Health Administration [www.msha.gov](http://www.msha.gov)  
National Utility Contractors Association [www.nuca.com](http://www.nuca.com)  
American Society of Safety Engineers [www.asse.org](http://www.asse.org)  
Center for Protection of Workers Rights [www.cpwr.com](http://www.cpwr.com)  
American Trainco [www.americantrainco.com](http://www.americantrainco.com)  
Safeway Scaffolds [www.safeway.com](http://www.safeway.com)  
The Crane Institute of America [www.craneinstitute.com](http://www.craneinstitute.com)  
American Work Platform Training [www.awpt.org](http://www.awpt.org)  
The National Work Zone Safety Clearinghouse [www.workzonesafety.org](http://www.workzonesafety.org)  
Federal Department of Transportation MUTCD [www.mutcd.fhwa.dot.gov](http://www.mutcd.fhwa.dot.gov)  
General Casualty Insurance [www.generalcasualty.com](http://www.generalcasualty.com)

## Tool Box Meeting – It's not just dirt!

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Answers for tool box meeting on page 2.

a)cohesive b>true c>true d>true e>true f>true g>true h>false i>true j>true

It is not our intention that this newsletter cover the requirements of the Federal Occupational Safety and Health Act or any other Safety or Health Act, or to infer or imply that there are no hazards and exposures in existence. The maintenance of safe premises, operation and equipment, and the avoidance of unsafe conditions and practices, and compliance with all statutes and laws are the sole legal responsibility of the insured. We assume no liability for the service provided. To the extent any referrals to service providers are included with this newsletter, please note that such referrals should not be construed as recommendations as we cannot provide any representation or warranties regarding work done by others. Further, we are not requiring that you use a listed service provider, you are free to choose from our referral list or another vendor to meet your needs.