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Trenching

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Update on Roadbuilding Initiatives

The "top ten" violations issued during the first half of FY 2000



The Aurora Illinois Area Office publishes the AURORA OSHA Construction Newsletter. Readers are encouraged to submit suggestions or auestions to:

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The information contained herein has been compiled and reported with the intent that it is both reliable and up-to-date, and is offered for general guidance only. Additional safety measures may be required by your facility under certain conditions or circumstances. Professional advice should be sought for specific situations.



TRENCHING

Yes, there really is a worker in the bottom of the 35-foot trench. No, it wasn't staged. Yes, the company was cited for lack of cave-in protection.

OSHA's National Emphasis Program (NEP) for Trenches requires all compliance officers to be on the lookout for trenching and excavation worksites. OSHA will inspect worksites where trenching hazards have been observed and reported – either by the public or an OSHA compliance officer.

So far this year, the Illinois Area Offices have conducted 133 inspections under the Trench Program, or 15% of the 864 construction inspections conducted. As reported in the last edition, more than half of the lack of cave-in protection citations in Region 5's Federal OSHA offices (Illinois, Ohio, and Wisconsin) were issued here in Illinois. Lack of cave-in protection is #3 on the Most Frequently Violated Standards List (see page 5).

(continued on page 2)

Competent Person

1926.651(k)(1) requires a competent person make daily inspections of excavations, the adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions.

We are frequently asked what a "competent person" is. The employer has the responsibility to designate the competent person

When OSHA shows up for an inspection, the compliance officer will ask the employer's competent person a series of questions to find out if the competent person can detect the hazards on-site and if they have the authority to take corrective action. OSHA frequently finds that the competent person is quite knowledgeable about the hazards, and how to correct them. They usually have many years of experience in the industry. However, they may have no authority to correct problems. If they can't, they are not a "competent person."

The designated competent person should have and be able to demonstrate the following:

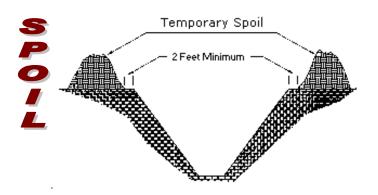
- Training, experience, and knowledge of:
 - Soil analysis;
 - Use of protective systems; and
 - Requirements of 29CFR Part 1926 Subpart P
- Ability to detect:
 - Conditions that could result in cave-ins:
 - Failures in protective systems;
 - Hazardous atmospheres; and
 - Other hazards including those associated with confined spaces.
- Authority to take prompt corrective measures to eliminate existing and predictable hazards and to stop work when required.

Trenching (continued from page 1)

If trenching hazards are so great (people die in trenches) and the means to correct the problem is so easy (trench boxes, shoring), why do we still find so many trenches with no cave-in protection?

Unfortunately, we find that sometimes people are willing to take chances. Some of the "excuses" we hear include: the worker was only going to be in the trench for a few seconds; we've been doing this for years and never had a problem; the trench box is down the street and it was too much trouble to get it for just a few minutes; and so on.

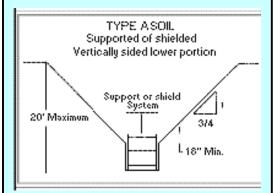
Let's face it, there really aren't any excuses for not providing cave-in protection. In this edition you will find information on trenching standards and what OSHA looks for in a competent person. More information is available on the OSHA web site: www.osha.gov. You can also call the OSHA area office and ask for help – (we don't have caller id).

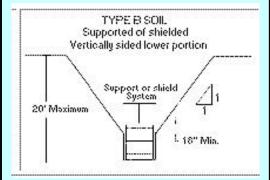


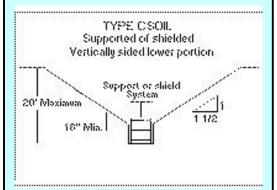
Temporary spoil must be placed no closer than 2 ft. from the surface edge of the excavation, measured from the nearest base of the spoil to the cut. This distance should be measured from the crown of the spoil deposit. This distance requirement ensures that loose rock or soil from the temporary spoil will not fall on employees in the trench.

Spoil should be placed so that it channels rainwater and other run-off water away from the excavation. Spoil should be placed so that it cannot accidentally run, slide, or fall back into the excavation.

Slope and Shield Configurations for Type A, B and C soils



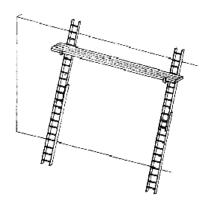




1926.652 Appendix B contains specifications for sloping and benching when used as methods of protecting employees working in excavations from cave-ins.

Ladder Jack Scaffolds – What you need to know.

Ladder jack scaffolding is a supported scaffold consisting of a platform resting on brackets attached to ladders.



Specific requirements for ladder jack scaffolds are listed in 1926.452(k)

We are finding a lot of ladder jack scaffolds being used that don't meet the OSHA requirements. The following is a "quiz" you can take to check your knowledge of the OSHA requirements. The answers are located at the end of this article.

- (1) Platforms on ladder jack scaffolds can not exceed a height of:
 - (a) 5 feet
 - (b) they can be any height you want them to be
 - (c) 20 feet
- (2) Job-made ladders can be used to support ladder jack scaffolds:
 - (a) yes
 - (b) no
- (3) Ladders used to support ladder jacks shall be placed, fastened, or equipped with devices to prevent:
 - (a) the ladder from cracking
 - (b) OSHA from inspecting you
 - (c) Slipping
- (4) Each employee working on a ladder jack scaffold more than 10' above a lower level must be protected by a personal fall arrest system:
 - (a) yes
- (b) no
- (5) Workers can use the support ladders to access the platform.
 - (a) yes
 - (b) no
- (6) Each platform has to be at least:
 - (a) 18 inches wide
 - (b) 2 feet wide
 - (c) 12 inches wide

Answers: (1) \underline{c} - .452(k)(1) (2) \underline{b} -.452(k)(2) (3) \underline{c} -.452 (k)(4) (b)(15) (4) \underline{a} - .451(g)(1)(I) (5) \underline{b} - .451(e)(1) – when the platform is positioned on the "climb" side (6) \underline{c} - .451(b)(2)(I)

Update on Roadbuilding

OSHA conducted 79 inspections in Region 5 during the first few months of the Roadbuilding Initiative. The inspection break down by State follows:

> Illinois 23 Ohio 34 Wisconsin 22

During the next two months, expect an increase in inspection activity.

What are we finding during our inspections? Surprisingly, a number of violations for lack of cave-in protection have been issued. The following violations are also being frequently cited:

1926.21(b)(2): employees are required to be trained on recognition and avoidance of unsafe conditions

1926.95(a): requirements for personal protective equipment

1926.152(a)(1): only approved containers shall be used for storage and handling of flammable liquids

1926.200(g)(1): construction areas shall be posted with legible traffic signs at points of hazard

1926.202: barricades

So far, there have not been many violations for the lack of reflective vests or flagmen (See 1926.201 – signaling).

In the next issue, we will publish the "top ten" violations found during roadbuilding inspections.

DID YOU KNOW?

Over \$300,000 in penalties has been issued for lack of guardrails on scaffolds in Illinois so far this fiscal year. The lack of guardrails is the number 1 cited violation in Illinois and the most penalized.

Over ¾ of a million dollars in penalties was issued for lack of cave-in protection for Region 5 (Illinois, Ohio, and Wisconsin) so far this fiscal year. Of the 144 total violations found, 6 Willful and 19 Repeat violations were issued.

On page 3 we list the slope and shield configurations for Types A, B and C soils. This past May a trenching company was fined \$77,000 following a fatal trench cave-in in Jackson, Miss. Workers in a trench were protected by a 20-foot long, eight-foot high trench shield while installing a french drain pipe in an excavation ranging from 19.5 to 21 feet deep. Although the 12 feet of trench wall above the shield had been sloped, the sloping was inadequate to protect the workers in the trench. An employee working in the trench was killed when a portion of the excavation's wall caved in and buried him inside the trench shield.

The Chicago Area Offices have been surprised by an increase in accidents involving employees working on transmission lines. Two fatalities occurred within 3 months of each other, relating to overhead transmission lines. Items to check: make sure the lines are de-energized (lockout), test the lines prior to working on them, and if needed, install grounds. Only qualified employees should be doing this type of work.

To help protect outdoor workers exposed to sunlight, OSHA issued suggestions to safeguard employees from harmful ultraviolet (UV) radiation. OSHA's <u>pocket card</u> recommends that workers who spend time outdoors protect themselves from UV radiation by wearing protective clothing that does not transmit visible light and UV ray-blocking sunglasses. Workers also should frequently apply sunscreen with a Sun Protection Factor of 15 or higher. Sunlight is the main source of UV radiation, which can cause eye damage, premature aging of the skin, and skin cancers, such as melanoma. Skin cancers and deaths resulting from melanoma are increasing rapidly in the U.S. even though fewer cases of most other cancers are being reported. The pocket card is available at the OSHA web site under publications.

OSHA'S web page: www.osha.gov

The State of Illinois Consultation Web Page: www.commerce.state.il.us/workforce/osha/osha_home.htm

Most Frequently Identified Violations in Construction October 1, 1999 – June 30, 2000

Rank	Illinois	Region 5
1	451(g)(1) – fall protection on scaffolds	20(b)(2) – frequent and regular inspections on job sites made by a competent person
2	20(b)(1) – safety programs	451(g)(1) – fall protection on scaffolds
3	652(a)(1) – cave-in protection for trenches	100(a) – hard hats
4	451(e)(1) – safe access to scaffolds	501(b)(1) – fall protection is required when working at heights of 6 feet or more
5	100(a) – hard hats	501(b)(13) – fall protection on residential construction sites
6	501(b)(1) – fall protection is required when working at heights of 6 feet or more	21(b)(2) – employees must be trained in the recognition and avoidance of unsafe conditions
7	451(g)(4) – guardrails shall meet the requirements of the standard; i.e. installed on all open sides, ends; the top rail shall be between 38" and 45" of the platform height	652(a)(1) – cave-in protection for trenches
8	451(b)(1) – scaffolds shall be fully planked	20(b)(1) – safety programs
9	451(f)(7) – scaffolds shall be erected, moved, dismantled, or altered only under the supervision and direction of a competent person qualified in scaffold erection, moving, dismantling or alteration.	503(a)(1) – training on fall protection
10	501(b)(13) – fall protection on residential construction sites	451(e)(1) – safe access to scaffolds

Source: OSHA database