

Trench Safety Syllabus

Time: 8 hours

Maximum Class Size: 12

Prerequisites: None

Course Description: Cave-in of excavations is one of the top four causes of fatalities in the construction industry. Therefore, trench safety is an essential skill for all those working near trench and excavations. This course will focus on OSHA Subpart P 1926.650 for working in excavations and confined spaces, the identification of cave-in hazards, soil type identification, the methods used to protect workers in excavations, and the hazards of confined spaces.

Goals/Objectives/Student Learning Outcomes

- Identify soil types.
- Describe the different types of excavation protection.
- Explain the OSHA standards for working in trenches.
- Explain the hazards in working in confined spaces.
- Explain the testing procedures for working in confined spaces.
- Install aluminum hydraulic shoring
- Remove aluminum hydraulic shoring
- Set-up a mechanical ventilation blower.

Standard

- OSHA Subpart P 1926.650 for working in excavations and confined spaces.

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

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Textbooks/Readings/Materials

- *LIUNA: Trench and Excavation Safety*-IG/PG
- *LIUNA Subpart P: Trench and Excavation Safety* IG/PG
- *LIUNA: Confined Space Awareness* IG/PG
- "Trench and Shoring Safety" DVD- Don Brown Productions
- "Confined Space Disaster" DVD-Laborers-AGC
- "On Line, On Grade, Every time, Flow line"- Trench Shoring Co.
- "Color Code for Marking Underground Utilities"-Dig-Alert, Underground Service Alert of Southern California
- "Hazardous Information Guide," NFPA Label-Graphic Products
- Handout: Estimating Approximate Purge Times" chart-Bell Systems Standard

Tools/Equipment/Other Materials

- Aluminum hydraulic shoring
- pump cans
- removal tools
- Mechanical ventilation blower
- Acetone, 2 qt. plastic bottle, and lighter

Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of safety glasses
- 20 pairs of earplugs
- 12 hard hats

Course Requirements

To receive credit for the course, participants must:

- Be present for full eight hours
- Participate in all classroom exercises

Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment

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- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.