

Worksite: _____ Instructor: _____ Date/Time: _____

Topic C152: Trenching Operations

Introduction: Each year in the United States, 80 to 100 workers die in trench cave-ins, and thousands of injuries occur during excavating operations. Most of these accidents could have been avoided simply by following proper trenching techniques. Everyone involved with trenching operations should become familiar with the regulations and follow these guidelines for safe excavation procedures and processes.

Specific Requirements for Safe Excavation Operations:

- All ground level material or structures located where it can create hazards to workers must be moved or supported.
- Have the utility company or a locating service (blue stake), identify and mark all underground utilities in your work area prior to digging.
- Utility companies must be notified of your intention to excavate within established response times. (usually 48 hours)
- While the underground utilities are exposed, they must be protected, supported, or removed as necessary to safeguard workers.
- Structural ramps that are used to enter or exit the excavation must be designed by a competent person. If two or more members (planks) are used to form the ramp, they must be connected, the same thickness, and have cleats on the top side to prevent slipping.
- Ramps used by equipment or vehicles must be designed by a person qualified in structural design.
- A stairway, ladder, or ramp must be installed for workers to exit a trench that's 4 feet or more deep and must be located within 25 feet of any employee.
- If working near traffic flow you need to wear warning vests of reflective or high visibility material.
- No one is permitted under loads handled by lifting or digging equipment, and must stay clear of any loading operations.
- When equipment or vehicles are being operated next to, or near an excavation, a warning system such as barricades, hand or mechanical signals, or stop logs must be used.
- When entering bell bottom pier holes, or any similar deep and confined footing space, you need to wear a harness with an attached safety line (separate from other lines). This line must be tended at all times while you are in the excavation.
- Do not work in excavations where water is either accumulated or accumulating unless adequate precautions are taken.
- If the stability of structures next to an excavation is in question, they must be supported or braced to insure stability.
- Never operate equipment near a trench while others are working in the trench.
- Guards, nets, or walls must be used to protect workers from loose rock, soil, tools, or equipment that could fall or roll into the excavation.
- A competent person must inspect the excavations, adjacent areas, and protective systems daily for any hazardous situations. These inspections must be made prior to work, and as needed throughout the shift. Where hazards are found, workers must be evacuated from the area until necessary safeguards are provided or restored.
- If there is a possibility of gases or low oxygen levels in any excavation is over 4 feet deep, the air must be tested before workers enter.
- Any excavation over 4 feet must be shored, shielded, sloped, or stepped.
- Piles should be located at least 2 feet away from the excavation.

Conclusion: In addition to these requirements, always wear your required Personal Protective Equipment such as hard hats, proper foot gear, gloves, eye and face protection, and any required breathing protection.

All workers should be trained in job performance and safety requirements ("Confined Space" training may also be required). Workers should be spaced in the trenches to provide safe clearance, and should never work at a higher level (or up-slope) of another worker. Everyone working at an excavation site should be familiar with signs of danger on the job site, proper accident reporting, and emergency response.

Always watch out for the other guy, and if the situation, circumstances, or any safety conditions seem questionable, give warning and evacuate the trench immediately! Report the situation to proper supervision before re-entry of the excavation. Use these guidelines to ensure a safe workplace.

Employee Attendance: (Names or signatures of personnel who are attending this meeting)

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.