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CHOICES FOR HAND PROTECTION

Excavation and the Competent Person:

Training is Vital for Hazard Prevention

By Kenneth Lane

The role of the excavation competent person demands possibly the most accountability of any jobsite safety professional. They are responsible for an area of construction where workers can be injured or killed in a split second. They must have extensive training and broad expertise not only in all aspects of excavations, but also in all relevant OSHA regulations (confined space, utility location, PPE, hazardous atmosphere testing, rigging, design, etc.) as well as state and local laws. If the excavation competent person is provided the proper training and tools, they can not only eliminate major hazards but also proactively anticipate and reduce the likelihood of potential risks.

COMPETENT PERSON'S ACCOUNTABILITIES

The excavation competent person must be aware of and focused on many key aspects of the excavation site, including:

- Clear and open communication with all persons responsible for the excavation operations;
- Determination of required protection systems, including dewatering systems;
- Monitoring of all employees entering the excavation to ensure proper training in excavation hazards and recognition, work practices, protective measures, and emergency response;
- Conducting ongoing inspections of the excavation and adjacent areas, including confined spaces;
- Testing of hazardous atmospheres and soil classification testing;
- Authorizing, when necessary, the removal of employees from hazardous areas until proper safety precautions are taken.

OSHA CONSTRUCTION INDUSTRY REGULATIONS

The excavation competent person must have extensive knowledge of OSHA (Occupational Safety and Health Administration) regulations so that they can continually evaluate the excavation for compliance with the specific requirements of 29 CFR 1926, Subpart P, of the OSHA Construction Industry Regulations (log on to **www.osha4you.com/exc.html** for a daily excavation/trench inspection checklist and additional excavation resources). While these safety regulations encompass a broad range of requirements, the competent person can begin by concentrating on some of the major areas of risk associated with excavation.

A partial list includes:

General Set Up and Measurements

- Determining the depth and width of the trench/excavation; if the depth is over 20 feet, a registered professional engineer must be consulted;
- Following the access and egress requirements for trenches over 4 feet in depth; ensuring that ladders or ramps are within 25 feet of employees;
- Properly securing ladders, with placement 36 inches above the trench;
- Setting up crossovers of trenches over 6 feet in depth

ABOUT the AUTHOR

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and wider than 30 inches with walkways and standard guardrails;
- Properly protective shoring systems, making sure they're spaced properly and not damaged;
- Providing proper benching or sloping;
- Ensuring that trench boxes are installed at the correct height, not damaged and being used properly (workers are not outside of the protected area);
- Monitoring that the spoils pile is at least 2 feet from the side of the trench;
- Accounting for adjacent areas and structures, including inspecting and providing appropriate protection;
- Ensuring that sidewalks, pavement, and adjacent structures are not undermined (without proper support);
- Making sure exposed underground structures and utilities are supported;
- Checking for cracks and other signs of failure (raveling, bulges, depressions, etc.);
- Determining that proper plywood is used for the prevention of local raveling.

Documentation and Planning
- Identifying and precisely locating underground utilities by safe, acceptable means;
- Conducting inspections before the start of work and as needed throughout the shift, as conditions may change;
- Analyzing and documenting confined space, i.e. proper safety precautions taken and PPE used;
- Accounting for vibrations caused by equipment or traffic and providing protection;
- Developing a rescue plan and making sure appropriate equipment is onsite;
- Maintaining tabulated data for shoring on the jobsite;
- Ensuring that a mobile equipment warning system is in operation.

Employee Safety
- Determining if employees are exposed to falling loads and taking appropriate precautions;
- Tracking the number of employees in the trench/excavation;
- Providing proper personnel protection from equipment and traffic (barricades, flagmen, etc.);
- Ensuring that proper PPE is being worn by employees (retro-reflective safety vests, hardhats, hearing protection, eye protection, etc.).

Testing
- Performing visual and manual tests to determine proper soils classification;
- Recognizing and testing hazardous atmospheres in excavations greater than 4 feet in depth;
- Monitoring water conditions; checking that dewatering equipment is operating properly.

The true value of a knowledgeable, well trained, and conscientious excavation competent person cannot be underestimated. A qualified competent person can help ensure compliance with OSHA regulations and standards, and, more importantly, eliminate or significantly reduce the potential hazards and risks associated with excavation. ■