safety matters

Construction

From your safety partners at Peabody Insurance Agency

Preventing Trench Collapse

It's a simple matter of physics—trench walls want to collapse. When they do, it happens quickly and the results can be fatal. It doesn't take much dirt to trap and crush a worker, which is why it is important that you take the proper precautions during excavations that require a trench deeper than 5 feet.

Keep the Surface Clean

Trench collapse occurs when the trench walls can no longer contain the large amount of pressure put on them by the surrounding soil. While this can be a problem at any depth, it is made worse when excavated materials are piled at the edge of the trench. To reduce some of the pressure put on trench walls:

- Pile all excavated materials at least 2 feet back from the edge of the trench. If there is not enough room to allow at least 2 feet, remove excavated materials from the immediate location.
- Do not work around the edge of the trench when others are below.
- Keep equipment away from the trench edge. Not only can it cause cave-ins but there is also a chance that it could fall on those working below.

Slope for Stability

Another way to reduce the pressure put on trench walls is to use a sloping or benching system.

- Sloped Walls – A 34-degree slope should be used when digging to prevent a section near the top from giving out and burying the bottom of the trench.
- Benching – When there is enough space available, benching allows a trench to be dug in a series of steps that slowly descend to the deepest point.

Reinforce Trench Walls

Once a trench has been dug, the walls should be braced in a way that will protect those working in the area if a cave-in does occur.

- Construct a support system made with posts, beams, shores or planking and hydraulic jacks.
- Never excavate more than 2 feet past the bottom of the support system.
- Make sure there is always a safe exit route within 25 feet of where you are working in the trench.

Trench Boxes

A trench box can be used as a convenient alternative to building a support system directly into a trench. However, for it to provide the proper protection it must be used properly.

- Always place the trench box before entering the trench.
- Enter directly into the box.
- Never move the box while workers are in the trench.
- Never perform work in the trench outside of the box.

Trench collapses can happen quickly and have fatal results. Always institute the proper safety procedures before entering a trench.

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