



Toolbox Talk: Basic Excavation Safety

[Reference: 1926 Subpart P]

According to the Bureau of Labor Statistics, from 2013-2017, there were 97 trenching fatalities in the construction industry – an average of 19 per year, from a low of 10 deaths in 2014 to a high of 33 in 2016 [BLS, 2019]. Excavations are a common sight on construction sites all across the United States. This work can come with numerous hazards, but excavation work can be made safe by following basic safety guidelines.

Some Major Hazards of Excavation Work

- Cave in and collapses
- Water accumulation (drowning)
- Falls into the excavation
- Utility strikes
- Poisonous gases collecting in an excavation



General Ways to Mitigate Excavation Hazards

- Follow OSHA's guidelines or your own company policy for protective systems to protect employees entering the excavation. Often times the soil being excavated is referred to as "Type C," which is the most hazardous for employees to enter. Excavations should be sloped back according to OSHA's or your companies guidelines which depend on the soil type present. Trench boxes and shoring are other options to protect employees entering the excavation.
- Prohibit equipment and other employees from working above anyone working in the trench or excavation.
- Keep water out of the excavation. Use pumps to remove water from the excavation and do not allow employees to be in any excavation or trench that has water accumulating in it. Water affects the integrity of the excavation.
- Never leave the excavation open when work is not being performed in the area. Use barricades, fencing, and signage to protect both employees and anyone passing by from falling into the excavation or driving into it.



- Always use the “One Call” service in your area to ensure there are no utilities in proposed excavation areas or have utilities properly marked prior to digging. Look at as-built drawings when they are available for the area the excavation is occurring.
- When there is a chance for a hazardous atmosphere in an excavation and individuals have to enter it ensure gas testing is done including any low points where gases can collect.

Discussion points:

-Has anyone experienced a trench collapse or cave-in at another job?

-What are some other hazards excavation operations create onsite?

-How can we further protect ourselves from the hazards that excavation operations create?

[Partners for Safe Trenching and Excavation Operations | Occupational Safety and Health Administration](#)

Source: OSHA [1926 Subpart P](<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/subpart/P>)

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