Trenching Safety Stats and Facts

FACTS

1. An excavation is a hole in the ground as the result of removing material. A trench is an excavation in which the depth exceeds (is bigger than) the width.
2. Working in trenches and excavations is hazardous to both the workers who work inside them, and to workers on the top of the trench include the following hazards:

- Cave-ins or collapses that can trap workers.
- Equipment or excavated soil falling on workers.
- Falling into the trench or excavation.
- Flooding or water accumulation.
- Exposure to a hazardous atmosphere
- Contact with overhead electrical lines.
- Contact with buried service lines such as electrical, natural gas, water, sewage, telecommunications, etc.
- Slips, trips and falls as workers climb on and off equipment, or from inappropriate access and egress methods.
- Being struck by moving machinery, or by falling or flying objects.
- Hazards related to materials handling (e.g., lifting, struck by, crushed between, etc.).

STATS

- B.L.S. data show that about 25 workers are killed each year in trench-related mishaps. Cave-ins cause about three out of every four fatalities; the remainder are commonly due to struck-by or electrocutions.
- The main reason trenches collapse is that they are not properly protected. Protective systems were properly employed in only 24 % of the trenches. In the remainder, a

protective system was either improperly used (24%), available but not in use (12%) or simply unavailable (64%).

- Environmental conditions were a contributing factor in 68 % of the fatalities, the competent person was not onsite when the fatality occurred 86 % of the time. Most of the time (65%) the employer had not identified the soil type even though soil type is a factor in trench cave-ins.
- A disproportionate number of fatalities (36%) occurred on Mondays, probably because rain or other factors changed conditions over the weekend.
- The OSHA investigations showed that schedule time was more important than safety in 88 % of the incidents. Seventy-two percent of the fatalities occurred in trenches less than nine feet deep. Only nine percent occurred deeper than 15 feet.
- Injuries and deaths associated with trenches continue to happen. There was a total of 373 trenching fatalities, with more than 80% of them in the construction industry.
- Trench collapses remain among the construction industry’s most dangerous hazards. Trench collapses caused 130 deaths in the industry.
- The Bureau of Labor Statistics reports that 166 workers died in trench collapses. In 2019, OSHA reports at least 24 workers died while working on trenching and excavation projects.