Trenching and Irrigation – Landscaping Stats and Facts

FACTS

Primary hazards and types of injuries associated with trenching and irrigation in landscaping.

1. Trench Collapses: One of the most dangerous hazards is a trench collapse, which can bury workers under several tons of soil, leading to asphyxiation, crush injuries, or fatalities.

- The lack of protective systems like trench boxes or shoring increases the risk of cave-ins.

2. Underground Utilities: Excavation work can accidentally strike underground utilities such as gas lines, electrical cables, and water pipes.

- Failure to accurately map and mark utility locations before digging is a common cause of these incidents.

3. Heavy Machinery: Operating heavy machinery such as backhoes and trenchers can result in injuries if proper safety protocols are not followed.

- Working on uneven terrain can lead to machinery rollovers, posing a significant risk to operators.

4. Confined Spaces: Trenches can become confined spaces with limited oxygen, toxic gases, or other hazardous atmospheres.

5. Musculoskeletal Injuries: Tasks such as digging and installing irrigation systems involve repetitive motions that can lead to strains, sprains, and other musculoskeletal injuries.

6. Slip, Trip, and Fall Hazards: The uneven and often slippery surfaces around trenches can lead to slips, trips, and falls, causing injuries ranging from minor bruises to severe fractures.

STATS

- In 2022, 39 workers died from trench or excavation work in the USA, a significant increase from the 15 fatalities recorded in 2021. This reflects a 160% rise in trench-related deaths.
- From 2011 to 2018, the Bureau of Labor Statistics recorded 166 worker deaths due to trench collapses, averaging 21 fatalities per year.
- A study analyzing workers’ compensation claims from 2001-2017 in the landscaping services industry identified 3,311 serious injuries out of 18,037 workers’ compensation claims that were analyzed during that period. This study sheds light on the hazards present in the landscaping services industry, indicating that it is one of the most dangerous occupations in the United States, with higher-than-average rates of both fatal and nonfatal injuries when compared to all industries.
- The fatality rate for the landscape services industry in Canada is about 25 deaths per 100,000 workers, which is similar to that for more recognized high-risk industries such as agriculture and mining.