Dig Deep for Trenching and Excavation Safety

Safety Talk

What’s at Stake?

The fatality rate for excavation work is more than 100 percent higher than the rate for general construction work. On average, two workers are killed every month in trench collapses.

What’s the Danger?

An excavation is any man-made cut, cavity, trench, or depression in the earth’s surface formed by earth removal. This can include excavations for anything from cellars to highways. A trench is defined as a narrow underground excavation that is deeper than it is wide. Trench and excavation workers face numerous hazards, including:

- Falls and falling loads.
- Being struck by or caught between moving equipment and fixed objects.
- Hazardous atmospheres, including oxygen-deficient and explosive atmospheres.
- Drowning.
- Electrocution from contact with underground utilities.

Cave-ins are the most common and most feared trenching hazard, with good reason. Just one cubic yard or one cubic metre of soil can weigh as much as a car. If you were buried under that type of weight during a trench collapse, the crushing force of the dirt would suffocate you in as little as three minutes, even if you were only buried chest deep.

When a trench or excavation is cut into the earth it is never a matter of if it will collapse but when it will collapse. Unless it’s solid rock, an unsupported trench or excavation will always

pose a cave-in risk.

How to Protect Yourself

- Locate underground utilities prior to digging.
- Never go into an open dig that does not have a safe way in and out.
    - Ladders, steps or ramps should be provided for all trenches.
    - If you don’t see a safe way in and out, don’t go in.
    - Check with federal, state and provincial laws for exact requirements for safe means of access and egress.
- Never go into an open trench or excavation that does not have a protective system such as sloping, shoring or a prefabricated support system (a trench box or shield).
- Stay alert to these hazards:
    - Moving equipment and vehicle traffic
    - Trip hazards, such as rocks, tools and cords
    - Standing or rushing water
    - Underground and overhead utilities
- Confirm that a competent person has inspected the trench or excavation daily and whenever conditions change—for example, after it rains or when the dig area is exposed to vibration from heavy equipment.
- Equipment and piles of dirt and rock should be kept at least three feet, or one metre, away from the edge of the excavation or trench.
- Always wear all required personal protective equipment (PPE).

Final Word

Don’t get buried under your work. Dig deep and work safely in trenches and excavations.