Avoiding Caught-In/Caught-Between Incidents

What’s at Stake?

Caught-in and caught-between hazards account for:

- Approximately 100 deaths each year
- 5% of all construction fatalities
- More than 2 amputations EVERY work day
- Over 550 amputations each year
- Thousands of disabling injuries

Don’t let yourself become one of these statistics!

What’s the Danger?

Caught-in/caught-between incidents happen when a worker is crushed between objects.

- Examples could include cave-ins during trenching, clothing being pulled into machinery, or being crushed and trapped by shifting objects.
- Some of the working conditions that contribute to caught in – or – between hazards include, machinery that has unguarded moving parts or that is not locked out during maintenance, unprotected excavations and trenches, and working between moving materials and immovable structures, vehicles, or equipment.

Machinery Hazards: Almost all sites use machinery that has moving or rotating parts, and that machinery usually requires maintenance or repair at some point during construction.

- When machines or power tools are not properly guarded during construction, workers can get their clothing or parts of their body caught in the machines.
- If machines are not de-energized (locked-out) during

maintenance or repair, they may cycle or otherwise start up and catch a worker’s body part or clothing, causing injury or death.

Buried-In/Buried-By Cave-ins: of unprotected trenches and excavations are the main hazard for being buried.

- Cave-ins crush or suffocate workers.
- Trenches may contain hazardous factors; workers can drown in water, sewage, or chemicals in the trenches.
- If working around underground utilities, workers may also face burns, electrocution or explosions from steam, hot water, gas, or electricity.
- Additional concerns for buried-in hazards are working underneath large scaffolds and/ or walls that may collapse.

Getting Pinned: These types of hazards can result in multiple broken bones, asphyxiation, or death. Workers can be pinned between:

- Equipment and a solid object, such as a wall or another piece of equipment.
- Materials being stacked or stored and a solid object, such as a wall or another piece of equipment.
- Shoring and construction materials in a trench.

How to Protect Yourself

Based on the 3 major factors for caught-in or caught-between hazards, there are some general precautions to avoid risks:

Guarded machinery: Only use machinery that is properly guarded; never remove a safety guard when a tool is being used.

- For example, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other moving parts of equipment must be guarded if such parts are exposed to workers.
- Also, be sure to avoid wearing loose clothing or jewelry that can be caught in moving parts.

Supported machinery: Make sure equipment is deenergized and cannot be started accidentally

- First, disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits, and cutters.
- Turn off vehicles before you do maintenance or repair work. If possible, lock out the power source to the equipment.
- Lower or block the blades of bulldozers, scrapers, and similar equipment before you make repairs or when the equipment is not in use

Avoid pinning: Protect yourself from being pinned between equipment, materials, or other objects by being aware of the equipment around you and staying a safe distance from it.

- Never place yourself between moving materials and an immovable structure, vehicle, or stacked materials.
- Make sure that all loads carried by equipment are stable and secured.
- Stay out of the swing radius of cranes and other equipment.

Excavation protection: Never work in an unprotected trench that is 5 feet deep or more.

- Enter or exit a trench or excavation only by using a ladder, stairway or properly designed ramp that is placed within the protected area of the trench.
- Protection could include prevention methods like sloping, benching, or shoring.
    - Sloping is cutting back the sides of the trench to a safe angle, so it won’t collapse.
    - Benching uses a series of steps that approximate the safe sloping angle.
    - Shoring are wooden structures or mechanical or hydraulic systems that support the sides of an excavation.
- The use of a trench box or shield will act as protection for workers if a cave-in does happen

Training: Your employer must train you to perform your job and use

the provided equipment safely. It is the employer’s responsibility to instruct each employee in:

- the recognition and avoidance of unsafe conditions.
- the regulations applicable to their work environment.
- ways to control or eliminate any hazards.

Final Word

Using and maintaining machinery appropriately, taking the time to safeguard equipment, and ensuring proper prevention during trenching and general construction can greatly reduce the hazards and risks associated with caught-in/caught-between events.