



## Caught In Hazards

### Confined Space

Before workers can enter a confined space, a competent person must provide pre-entry planning, determine a rescue procedure and equipment need. In some instances a permit is required if the space includes any of the following:

- Hazardous atmosphere.
- Potential for engulfment or suffocation.
- A layout that might trap a worker through converging walls or a sloped floor.
- Any other potential serious safety or health hazard.

Use appropriate PPE depending on the space (ie. hard hat, knee guards, respirator, etc). Continuously monitor the space while workers are present using a communications system with both the workers in the space and other contractors at the site. No unauthorized workers may be allowed to enter for any reason. Rescue attempts by untrained personnel can lead to multiple deaths.

### Equipment: Machinery and Tools

- Only use machinery and tools that are properly guarded.
- Never remove a safety guard when a tool is being used.
- Avoid wearing loose clothing or jewelry that can be caught in moving parts.
- Keep long hair secured and away from moving parts.
- If you need to service equipment, make sure the equipment is de-energized (power source removed) and can't start accidentally.
- Always disconnect tools from power source when not in use.
- In some cases, it is necessary to lock out the power source to the equipment.
- Lower or block the blades of bulldozers, scrapers, and similar equipment before service or when the equipment is not in use.
- Protect yourself from being pinned between equipment, materials or other objects
- Be aware at all times of the equipment around you and stay a safe distance from it.
- Never place yourself between moving materials and an immovable structure, vehicle or stacked materials.
- Make sure all loads carried by equipment are stable and secured.
- Wear a seat belt, if required, to avoid being thrown from a vehicle and then being crushed by the vehicle if it tips over.

### Excavations and trenches

Excavation and trenching are among the most hazardous construction operations. A trench is a narrow underground excavation that is deeper than it is wide, and is no wider than 15'. Collapsing trenches cause dozens of fatalities and hundreds of injuries yearly. Trenches 5' deep or greater require a protective system unless the excavation is made entirely in stable rock. Protective systems include:

- Sloping- cutting back trench walls at an angle from the excavation.
- Shielding- uses trench boxes or other supports to protect workers.
- Shoring- installing aluminum hydraulics or other types of supports that support the sides of the excavation.

Designing and inspecting a protective system is complex and must be done by a competence person. OSHA standards require that trenches be inspected daily and as conditions change prior to worker entry. OSHA requires safe access and egress to all excavation with ladders, steps, ramps or other safe means of exit in trench excavations 4' or deeper. These devices must be located within 25' of all workers. In addition:

- Keep heavy equipment away from trench edges.
- Keep surcharge loads at least 2 feet from trench edges.
- Do not work under raised loads.
- Always inspect trenches following a rainstorm.