

# WHAT CAUSES HAZARDS & CONFINED SPACE

- The specific hazards that exist and how to identify them
- What causes these hazards and how to avoid them
- What is a confined space and why it is a hazard

# Hazards

- Cave-ins
- Trenches do not have to be deep for accidents to occur
- Serious injuries occur in trenches less than 5 feet deep. A cubic yard of dirt can weigh as much as 2700 pounds and move at 25 feet per second
- Cave ins make little noise and give little or no warning
- The weight of a car landing on you



Per OSHA Standard 29 CFR 1926 Sub Part P

# Causes of Cave-ins

- Vibrations from equipment or traffic in the area
- Weight of equipment near the trench edge
- Weight of excavated dirt or spoils near the trench edge
- Poor soil conditions
- Rain or water



**If more than one of the  
these conditions exist,  
the risk of collapse  
increases**

Per OSHA Standard 29 CFR 1926 Sub Part P

# Confined space excavation

- A confined space is: (according to 1926.1201 & 1910.146):
  - A space not designed for workers though a worker may enter it to perform a job
  - Limited means of entry or exit
  - Not designed for continued occupancy
- Examples: Pipelines, tanks, silos, pits, vaults, man-holes, tunnels

# Confined space excavation - continued

- Asphyxiation due to lack of oxygen can occur
- Build up of toxic fumes released during a dig in the bottom of an excavation
- A space not designed for workers though a worker may enter it to perform a job
- Limited means of entry or exit
- Not designed for continued occupancy



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# Other possible hazards

- Risk of being hit by a vehicle or equipment
- Drowning
- Electrocution
- Explosions



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