



Trenching OTCO 2018

Jennifer Scott-Wasilk, CHMM



Definitions

Excavation

- Any man-made cut or depression
- In the earth surface
- Made by earth removal

Trench

- Excavation
- Deeper than wide
- Less than 15ft wide at base



The Facts

- ▶ Two workers are killed each month in trench collapses.
- ▶ One cubic yard of soil weighs as much as a car.
- ▶ Unstable soils
 - ▶ Previously disturbed
 - ▶ Very wet
 - ▶ Very dry



Hazards

- No.1: Cave-in
- All others
 - Falls
 - Falling loads
 - Hazardous atmospheres
 - Hit by vehicle



Competent Person

- Understands OSHA trenching regulations
- Can recognize trench hazards
- Is authorized to correct the hazards
- Soil testing
- Protective systems
- Ohio BWC class



Competent person inspects daily before entry

- Onsite when workers are in trench



Competent person inspects after rain or
water seepage



Competent person finds underground utilities before digging



Competent person tests for O₂, explosive and poisonous gases at depths > 4ft



Competent person assures Safe Entry and Exit

- Ladder within 25ft at depth of 4ft



Competent person assures trenches $> 5\text{ft}$ depth are protected





At 20ft, a PE must design the protective system



Keep it dry



Keep heavy equipment away from edges





Keep soil, spoils, equipment at least 2ft
from edge



Don't work under raised loads



Wear high visibility clothing



Never Enter a Trench unless...

- ▶ Competent person has inspected it.
- ▶ Cave-in protection is in place.
- ▶ There is a safe way to enter and exit.
- ▶ Equipment and materials are away from edge.
- ▶ It is free of water and atmospheric hazards.



Never Enter a Trench unless...

- ▶ Competent person has inspected it.
- ▶ Cave-in protection is in place.
- ▶ There is a safe way to enter and exit.
- ▶ Equipment and materials are away from edge.
- ▶ It is free of water and atmospheric hazards.