

Georgia Branch, AGC's Trenching & Excavation Safety Stand Down

Friday, August 14, 2009



Safety Pays!



Proud Partners



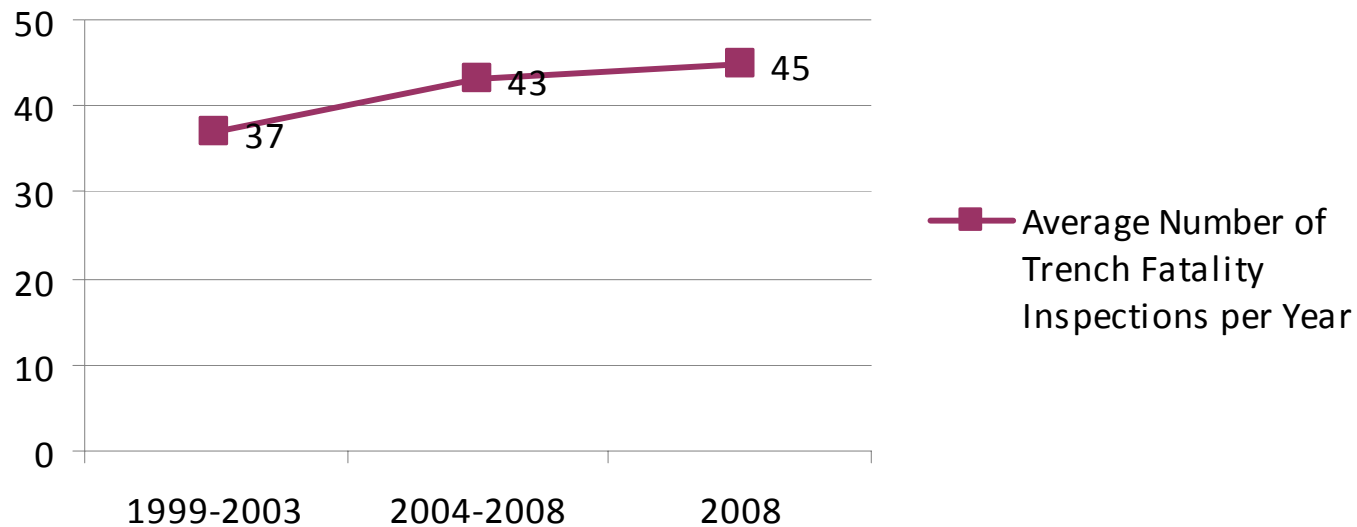
CompTrustAGC
Mutual Captive Insurance Company

Excavation Fatalities



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National Average Number of Trench Fatality Inspections, U.S. 1999-2008



Georgia Statistics



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	OSHA Region IV	Georgia
2002	15	2
2003	8	7
2004	6	4
2005	9	0
2006	7	1
2007	0	0
2008	2	0
2009	2	0

Utility Locates



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- Prior to start of work call in for utility locate
- 811 new number
- Must wait 48 hours
- White line

Soils Analysis



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- Must do visual inspection
- Must do manual inspection
- Tools
- Documented

Protective Systems



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- Start at 5 feet
- Slope or bench the sides of the trench or excavation
- Support the sides of the trench or excavation
- Place a shield between the side of the trench/excavation and the work area

Inspections

- Daily before shift
- After rain event
- After hazard increasing occurrence such as rain, blasting, or vibration

Safety Control System Daily Excavation Inspection Form

Site Location:		
Date:	Time:	
Competent Person:		
Soil Type:		
Soil Class:	Excavation Depth:	Excavation Width:
Type of Protective System:		
Weather:		Indicate each item by: Y/N/NA
1.) Utilities		
Utility companies contacted and/or located?		
Exact/suspected location of utilities marked/white lined?		
Utility locate number?		
Underground installations protected, supported, or removed when excavation is open?		
2.) Means of Access and Egress		
Lateral travel to means of egress no greater than 25' in excavations 4' in depth?		
Ladders used in excavations secured and extended 3' above the edge of excavation?		
Structural ramps used by employees designed by the competent person?		
Structural ramps used by equipment designed by Reg. Professional Engineer?		
Ramps constructed of materials of uniform thickness, cleated, with no slip surface?		
Employees protected from cave ins when entering or exiting the excavation?		
3.) Wet Conditions		
Has any water accumulated in the trench?		
Any water seepage from walls or bottom?		
Precautions taken to protect employees from water accumulation in or near excavation?		
Water removal equipment monitored by a competent person?		
Surface water or runoff diverted or controlled to prevent accumulation in excavation?		
Inspections made after each rainstorm or other hazard increasing occurrence?		
4.) Hazardous Atmospheres		
Atmosphere tested where there is reasonable possibility of oxygen deficiency, combustable, or other harmful containment exposing employees to a hazard?		
Can the trench be classified as a "confined space"?		
Testing conducted often to ensure that the atmosphere remains safe?		
5.) Employee Protection		
Are spoil piles, equipment, & employees back at least 2' back from edge of excavation?		
Are there tension cracks (fracture planes) along trench wall?		
Are there any shrinkage cracks in trench walls?		
Is there layered soil present?		
Are there any trees, boulders, signs, poles, etc. in the area?		
Are surface encumbrances supported or removed?		
Employees prohibited from working on the faces of slopes, benches, or above others?		
Barriers/ Fall Protection provided for all excavations, pits, shafts, etc.?		
Warning system utilized when mobile equipment is operating near edge of excavation?		
6.) Support Systems		
Support systems provided to insure stability of adjacent structures, roadways, etc.?		
Members of support system securely fastened to prevent failure?		
Any fluid leakage detected in aluminum shoring?		
Are employees and ladder inside the trench box/shield?		
Shielding extends min. 18" above bottom cut of slope?		

Water Accumulation



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- Cannot work in trench with water, unless
- Dewatering process
- Monitored by a Competent Person

Spoil Piles



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- Minimum 2 feet back
- Engineers recommend 4 feet

Egress



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A stairway, ladder, or ramp must be present in excavations that are 4 or more feet deep, and within 25 feet of the employees

Ladder must extend 3 feet above top of landing

Equipment



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- Install barricades
- Hand/mechanical signals
- Stop logs
- Grade soil away from excavation
- Fence or barricade trenches left overnight

Atmosphere



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Test excavations more than 4 feet before an employee enters the excavation for:

- Oxygen deficiency
- High combustible gas concentration
- High levels of other hazardous substances