



Tailgate Topic Review

[PP 03/19/2017 - 04/01/2017]

Excavation Safety Training

What are the soil classification categories?

Some of the compliance methods permitted under the Excavation standards require a competent person to classify soil and rock deposits as:

- Stable rock;
- Type A soil;
- Type B soil;
- Type C soil.

Stable Rock – Natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

Do not enter an unprotected trench! Trenches 5 feet deep or greater require a protective system unless the excavation is made entirely in stable rock.

Type A – Cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (tsf) or greater. Examples include: clay, silty clay, sandy clay, and clay loam. Certain conditions preclude soil from being classified as Type A. For example, no soil is Type A if it is fissured or has been previously disturbed.

Type B – Includes cohesive soil with an unconfined compressive strength greater than 0.5 tsf but less than 1.5 tsf and granular cohesionless soils (such as angular gravel, similar to crushed rock, silt, silt loam, sandy loam, and, in some cases, silty clay loam and sandy clay loam).

Type C – Cohesive soil with an unconfined compressive strength of 0.5 tsf or less, granular soils (including gravel, sand, and loamy sand), submerged soil or soil from which water is freely seeping, submerged rock that is not stable, or material in a sloped, layered system where the layers dip into the excavation or with a slope of four horizontal to one vertical (4H: 1V) or steeper.



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1) §1541. (k) INSPECTION

(1) Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rain storm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

SPECIAL NOTES TO INSPECTORS

At the start of any trench project the inspector shall verify that the contractor has an approved IIPP on file and that it has a specific section referring to excavations.

The inspector shall verify that the contractor has a valid excavation permit (annual or project).

Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees **shall be removed** from the hazardous area until the necessary precautions have been taken to ensure their safety. If the CP is unavailable the BCA inspector is to ensure the safety of the workers in the trench by ordering them out of the trench and away from the sides.

The BCA inspector shall have an approved shoring submittal(s) pertaining to the job.

The BCA inspector shall possess a measuring device that the inspector can use to determine the rail and pistons of the protective system.