**COMPETENT PERSON DOCUMENTATION:**

The Competent Person shall maintain the Daily Inspection Checklist for each trench/excavation. The documentation shall include Job Site Description; Trench/Excavation Inspection Comments; Employee & Public Safety Inspection; Protection System Selected; Soil Conditions; and Construction Design and Comments.

**TRAINING:**

Competent persons for trenching and excavation work shall be trained in the following objectives:

1. DEFINE SELECTED TERMINOLOGY: Competent persons shall be knowledgeable in the following terms:

* Support system
* Trench
* Excavation
* Registered Professional Engineer (RPE)
* Trench shield/box
* Sloping
* Hydraulic shoring
* Protective system
* Uprights / Failure

2. IDENTIFY DUTIES OF "COMPETENT PERSON" USING DAILY INSPECTION CHECKLIST: Competent persons shall be knowledgeable in the elements of the Daily Inspection Checklist to identify duties.

3. DOCUMENT TRENCHES/EXCAVATIONS USING THE DAILY INSPECTION CHECKLIST: Competent persons shall be trained to complete the checklist identifying the Job Site Description; Trench/Excavation Inspection Comments; Employee & Public Safety Inspection; Protection System Selected; Soil Conditions; and Construction Design and Comments.

4. DEFINE SELECTED SOIL TERMINOLOGY: Competent person shall be able to identify the following soil conditions:

* Fissures
* Granular
* Saturated
* Clay
* Multiple soil types
* Moist soil
* Caliche
* Cohesive
* Plastic

5. HANDS-ON SOIL TESTING: Competent person training shall include hands-on soil classification. Competent person training shall require the Competent Person candidate to classify cohesive (clay) soil (commercial clay or play dough may be used as a substitute), and granular soils.

6. INTERPRET DESCRIPTIONS OF SOIL CONDITIONS AND IDENTIFY TYPES REQUIRING SHORING: The Competent persons shall be able to identify conditions that will affect soil classifications, such as: fissures, vibration, previous excavations, blasting, above water table, rock above soil layers, layers tilting in at 4:1 slope or steeper, water freely seeping from side of trench, etc.

7. IDENTIFY CAUSES OF TRENCH CAVE-INS: Competent person shall be able to identify cause of trench cave-in, such as: inadequate support systems, inadequate sloping, surcharge loading, etc.

8. IDENTIFY HYDRAULIC SHORING REQUIREMENTS: Competent person shall be knowledgeable in the manufacturer's tabulated data, as well as the application of Appendix D to Subpart p (29 CFR 1926). Competent persons shall be able to identify proper installation techniques and limitation of hydraulic shoring, depending upon the depth and soil type. Competent person shall know:

* Maximum horizontal distances between shores,
* Distance from the top cylinder to soil's top edge,
* Maximum trench width and depth allowed without consulting an RPE,
* Thickness of Finn Form Sheeting for Type "B" soil,
* Number of inches the Finn Form Sheeting should extend above the vertical side of a compound trench and,
* The amount the sheeting may be raised from the bottom of the trench, provided the first cylinder is not higher than 4' from the trench floor to the middle of the first cylinder.

9. IDENTIFY TECHNICAL CHANGES IN SLOPING AND BENCHING SPECIFICATION AND RECOGNIZE SLOPING REQUIREMENTS: Competent person shall be able to identify the slope required for the following soil classifications:

* A - short term - less than 24 hours
* A - long term
* B - long term
* C - long term

In addition, competent persons shall be able to determine when benching is authorized for cohesive soils only.

10. IDENTIFY SAFETY REQUIREMENTS FOR USING A TRENCH SHIELD: Competent person shall be able to identify when end plates are required, how to safely stack shield sections, access and egress requirements, shield construction requirements, material handling requirements (tag line, sling safety, etc.}, and lateral support requirements.

11. IDENTIFY SAFETY REQUIREMENTS FOR A TRENCH WITH SURFACE ENCUMBRANCES: Competent person shall be able to identify appropriate methods in bracing or removing surface encumbrances, including when such bracing should be designed by an RPE.

At the completion of the above training, competent person candidates will demonstrate their proficiency under the supervision of competent company officials prior to being designated as a "competent person" for trenching and excavation work.

**TRENCHING/EXCAVATION
DAILY INSPECTION CHECKLIST**

COMPETENT PERSON: DATE:

USE ONE OR MORE OF THE FOLLOWING: a " check mark" to indicate yes, comment codes listed below, or fill in blank with applicable information or description.

**COMMENT CODES**

|  |  |
| --- | --- |
| SOIL TYPE: | ROCK, STABLE ROCK, "A" "B" "C" |
| HYDROSTATICCONDITIONS: | (M} MOIST (D} DRY (R) RAINSTORM(SA} SATURATED (PS) PARTIAL SATURATION  |

**JOB SITE DESCRIPTION**

Location: Area Congested:

Right-Of-Way And Clearance Ok:

Trench/Excavation Depth: Length:

Location Of Underground Utilities Verified: Date:

Location Of Underground Utilities Marked: Date:

Crossing Trench/Excavation: Lines: Road/ Alley:

Parallel To Trench/ Lines: Road / Alley: Building(S):

Excavation:

Pole Bracing: Overhead Lines: Structural Bracing:

Open Date/Time: Job #:

Registered Professional Engineer: Reason:

**TRENCH/EXCAVATION INSPECTION COMMENTS**

Soil Type: Times Inspected:

Describe Any Changing Conditions, Plans, Or Shoring Equipment Damage In Space Below:

**EMPLOYEE & PUBLIC SAFETY INSPECTIONS**

Ladders: Ramp For Employees: Ramp For Equipment:

Emergency Equipment: Air Quality Testing: Water Removal :

Lighted Barricades: Barricade Tape: Cones: Fencing:

Flaggers: Weekend Protection: Steel Plating:

Spoil Pile/Other Material Effectively Removed:

**PROTECTION SYSTEM SELECTED**

Hydraulic Shores (Size): Sheeting Thickness: No.:

Horizontal Walers (Size): Timber Shores:

Slope: ½:1 ¾:1 1:1 1 ½:1

Benching: Unsupported Wall Height:

**SOIL CONDITION -SOIL TYPE**

NOTE: If one manual & visual test for each is not done, soil must be classified as Type "C".

**MANUAL TESTS :**

COHESIVE SOILS - RECORD RESULTS:

GRANULAR SOILS - RECORD RESULTS:

**VISUAL TESTS:**

FISSURES -TRENCH SIDE (CRACKS OR SPALLS):

FISSURES -TOP OF TRENCH (CRACKS OR OPENINGS):

SOIL LAYERS SLOPE INTO TRENCH 4:1 OR STEEPER:

ROCK LAYER ABOVE SOIL LAYER

SEEPAGE INTO TRENCH FROM SIDES , SURFACE , BOTTOM

VIBRATION SOURCES THAT MAY EFFECT TRENCH STABILITY.

PRIOR OF EXISTING EXCAVATION CROSSING TRENCH: PARALLEL

ADDITIONAL COMMENTS/NOTES: