

OJT Training Module Cover Sheet

Title: 606 How to locate and safely avoid pipelines and other utilities.

Type: Skill Knowledge

Performance Objective: Trainee will be able to...

- Recognize what to watch out for and be aware of before probing or auguring a soil.
- Describe what steps to take to identify the presence of utilities before performing backhoe excavations.
- Locate the entities in his or her State capable of identifying buried utilities.

Target Proficiency:

- Awareness Understanding Perform w/ Supervision
 Apply Independently Proficiency, can teach others

Trainer Preparation:

- Trainers need to familiarize themselves with the OSHA rules and legal requirements for contacting services to locate and mark underground utilities.
- They need to familiarize themselves with local utility corridors and services.

Special Requirements:

- Initiate an external learning request with a SF-182 in Aglearn for this activity. Instructions and a template are located on the training webpages for OJT modules.
- Computer and access to the Internet for training materials and locating the local one call service.

Prerequisite Modules:

None

Notes: All soil scientists should also complete:

- 401 Understand your responsibilities in regards to cultural resources and endangered species.
- 402 Understand OSHA standards regarding excavations.
- Trenching and Excavation Safety course (AgLearn).

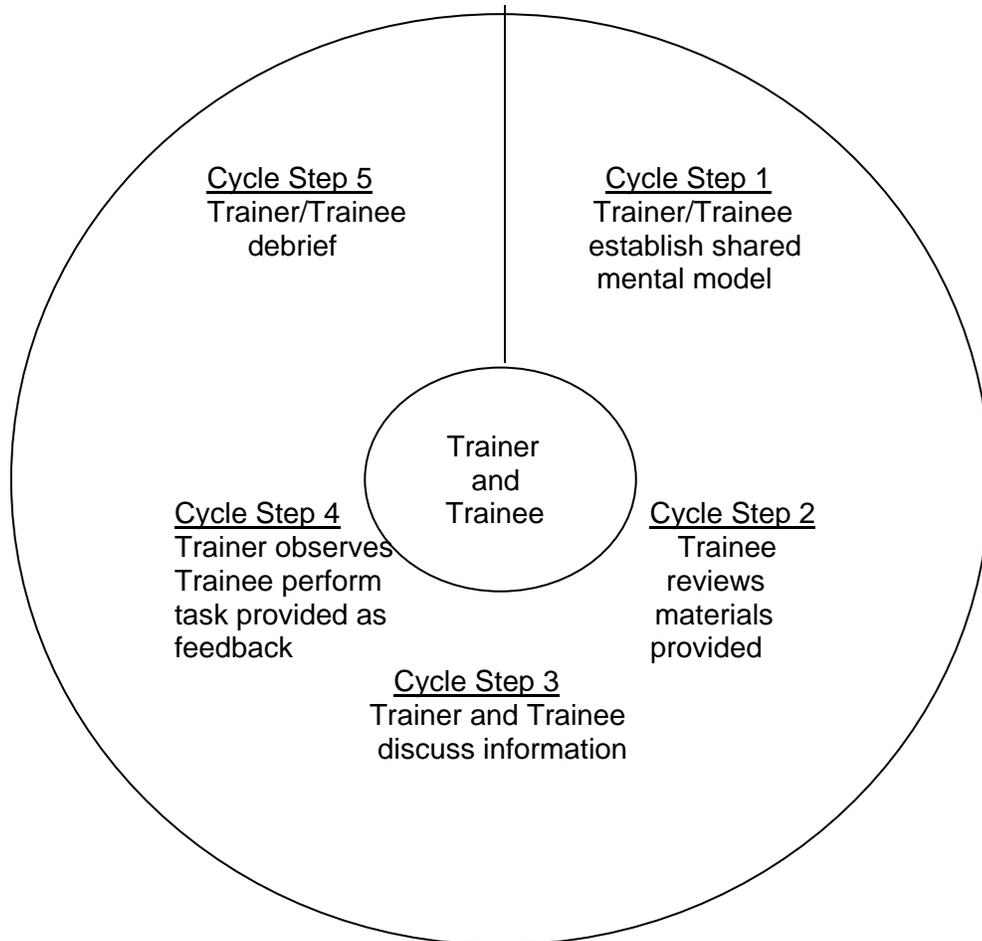
Authors:

Ken Scheffe

Approved by:

Shawn McVey

The Five-Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

Title: 606 How to locate and safely avoid pipelines and other utilities.

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	Brief the trainee regarding the hazards and concerns involved in excavating a soil, probing, or auguring. It is important that our actions as employees do not endanger the safety and life of ourselves, our cooperators, and the public. The tools we use to examine the soil, manual or powered, have the potential to penetrate electric, gas, water, and telecommunication lines, disrupting service and posing a hazard of electrocution, explosion, or suffocation.
Cycle step 2	Trainee reviews the following:
1. Be observant.	<p>Avoid backhoe digging, probing, or auguring in these areas:</p> <ol style="list-style-type: none"> 1. Along right-of-ways of roads and trails 2. Along or in bar ditches (barrow ditches) 3. Adjacent to fence rows 4. Along center-pivot turn rows 5. Along field boundaries 6. Within any utility corridor 7. Between potential unmarked utility corridors, such as <ol style="list-style-type: none"> a. an oil well and its tank battery, b. livestock drinker tank and well, c. center pivot and its electric meter, d. electric meter and house e. house and electrified barn, 8. In areas of 'linear' disturbances 9. Below electric lines (sometimes utility corridors for buried gas, phone, etc.) 10. Within 100 feet of any marked utility corridor <p>Things to look for indicating buried or overhead hazards:</p> <ol style="list-style-type: none"> 1. Electrical power lines 2. Signage on boundary fences 3. Utility signposts in fields or rangeland 4. Linear clearings of brush or trees 5. Evidence of linear ground disturbance (trenching) on the soil surface, such as: <ol style="list-style-type: none"> a. Subsoil colors b. Subsoil rock fragments c. Fragments of pans, such as petrocalcic horizon or duripan d. Linear alteration of plant community composition or vigor e. Slightly linear depressions or ridges 6. Between a structure and equipment that uses energy

	source and a supply of that energy source.
2. Information sources.	<ul style="list-style-type: none"> • Call before you dig—http://www.call811.com/ • Call 811—http://www.call811.com/state-specific.aspx
3. Employee responsibilities.	<ul style="list-style-type: none"> • Obtaining from the landowner permission to access and dig. • Contacting local utility-locating services before digging. • Following Agency Policy – GM 210 - National Engineering Manual Part 503 <ol style="list-style-type: none"> a. http://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=27418. • Being aware of possible responsibility for damages.
Cycle step 3	<p>Trainer and trainee travel to a preselected field site and discuss various potential hazards and resources in the area.</p> <ol style="list-style-type: none"> 1. Point out utility corridors and transmission lines. 2. Observe potential hazards both above and below ground. 3. Discuss not only what may be present, but also the logic leading you to believe it may be present. 4. Discuss who should be contacted before digging.
Cycle step 4	<p>Trainer and trainee travel to a new field site. Trainer asks trainee to identify the hazards and resources that may be encountered in excavation or digging and the process for clearing a site of utilities (e.g., call before you dig).</p> <ol style="list-style-type: none"> 1. Observe the trainee for evidence of a systematic process of evaluating hazards and risks. 2. Ensure that the evaluation is extensive enough for the ground-disturbing action planned. 3. Trainee presents findings. 4. Review and discuss the trainee’s findings for completeness and accuracy.
Cycle step 5	<p>At a later date, ask trainee for follow-up questions. Answer any questions from the trainee and make sure that the trainee understands agency policy.</p>

OJT Module Lesson Measurement of Learning

Title: 606 How to locate and safely avoid pipelines and other utilities.

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Have trainee assist in making necessary contacts, site evaluation, and clearance for a backhoe excavation.	During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.

SF-182

Trainee and/or supervisor access Aglearn to verify completion of the module via its SF-182.