


TRAINING GUIDE

UNDERGROUND SERVICE ALERT



2001

Before you begin the meeting...

- Does this topic relate to the work the crew is doing? If not, choose another topic.*
- Did you read this Training Guide and fill in the blanks where the  appears? (To find the information you need, look over the Safety Walkaround Checklist for this topic.)*

Begin: When excavation on a construction site accidentally hits an underground utility line, there's more than money at stake. Your own safety is in danger, too. A ruptured natural gas line can cause a fire or explosion. A severed electric line can kill you.

Underground utilities—electric, telephone, gas, water, and others—may be almost anywhere under a construction site. They were usually put in at different times, and they are owned by different companies. How do you find them before you dig? To prevent problems, there is a statewide telephone hotline that contractors can call. It's called Underground Service Alert (USA). USA will contact the utilities, who will come to the site and mark the location of all underground lines.

Cal/OSHA requires the contractor or property owner to call USA before digging.

You or a crew member may want to add a personal story about underground utilities.

Next, discuss with the crew where there may be underground utility hazards at this particular job site:



ASK THE CREW THESE QUESTIONS:

After each question, give the crew time to suggest possible answers. Use the information following each question to add points that no one mentions.

1. **How accurate are the markings that USA makes on the ground?**

- USA marks are accurate within **two feet** either side of the line.
- Use caution when you work closer than **five feet** to underground lines that USA has marked.

2. What do the different colors of USA markings mean?

- White—excavation border
- Blue—water lines
- Orange—communication lines
- Purple—reclaimed water lines
- Red—electric lines
- Yellow—natural gas/liquid petroleum lines
- Green—sewer lines

3. How far outside the *white* border lines can we dig?

- You can't dig outside the excavation border. You don't know what utility lines are down there. The area could be unsafe. USA must mark the new area.

4. At what depths are different utilities found?

- There's no general rule. It's unpredictable. Utilities are not usually placed at specific depths.
- Digging near a utility line presents a great danger of electric shock, pipe rupture, or explosion. You may find that a particular utility line is six feet deep at one location on a site, but only one foot deep just 100 yards away. So digging must **always** proceed very carefully.

5. At what point do we stop mechanical excavation and begin to excavate by hand?

- Stop mechanical excavation when you get too close to a known underground line.



On this site, we stop _____ feet away.

CAL/OSHA REGULATIONS

Explain: Most of the safety measures we've talked about are required by Cal/OSHA. We have to take these precautions—it's the law. I have a Checklist of the Cal/OSHA regulations on underground utilities. If you'd like to know more, see me after the meeting.

COMPANY RULES

(Only if applicable.) Besides the Cal/OSHA regulations, we have some additional company rules about underground utilities.

Discuss company rules: _____



COMMENTS FROM THE CREW

Ask: Do you have any other concerns about underground utilities? Do you see any problems on our job? (Let the steward answer first, if there is one.)

What about other jobs you've worked on? Have you had any experience with underground utilities that might help us work safer on this job?

