



Typically provided as a **1-day course**, training includes classwork in the morning and hands-on instruction in the afternoon. Course is designed as an introduction for new employees and as a safety refresher for more experienced employees. When provided **as a 2-day advanced** course, the training program adds a second full day of hands-on skills training and written testing.

### Classroom Summary:

**Accident Case Studies:** Reviews a recent history of public sector backhoe and similar mobile equipment accidents. Relative OSHA Standards and general backhoe work zone safety issues are considered.

**Equipment Orientation:** Includes the viewing of owner's operator video that introduces each machine component, identifies all controls and their function(s) and discusses basic safe operating principles.

**External Work Zone Set-up (Temporary Traffic Control):** Vehicular and pedestrian traffic strategies are summarized by referencing MUTCD Chapter 6 Temporary Traffic Control sections. This includes work in travel lanes, at the roadside and when impacting sidewalk use.

**Internal Work Zone Set-up (Perimeters and Barriers):** Basic set up of a backhoe work zone is discussed, including use of cones, barricades, caution tape and other barriers. It includes positioning of essential and non-essential equipment and the declaring of minimum distances for separating machinery and pedestrian workers.

**Excavating Issues:** Covers utility location, shoring for backhoe proximity, inclines, surface stability, safe backhoe travel areas and equipment attitude/position.

**Safe Mounting, Seatbelts, No-Rider Rules and Prohibited Uses:** Covers falling object protective structures (FOPS), rollover protective structures (ROPS), vehicle restraining devices and rider-passenger rules. It also covers the improper use of machinery as aerial platforms or man lifts.

**Imperative Operator Safety Rules:** The 12 absolute rules operators must obey to prevent serious accidents.

**Imperative Essential Pedestrian Worker Rules:** Includes several close proximity rules for employees acting as spotters or who perform special "close-to-machine" tasks, ie. final pipe positioning or installing plugs.

**Imperative Non-Essential Pedestrian Worker Rules:** Includes several close proximity rules for non-operators and motivates all workers to watch for conditions that are indicators of potential mobile equipment and work zone accidents.

**Special Operation Tasks:** Use of hand signals, rigging, tag lines and handling suspended loads, travel on roads and "trailing" are covered here, as well as operations unique to this piece of equipment.

**Preparing for an Unattended Work Zone:** Issues related to vacated work zones; overnight, waiting for part(s) or waiting for other crew situations and how machinery should be secured when left unattended.

**Equipment Inspection and Use of Pre-Job Briefing Checklists:** This section reviews a sample pre-job briefing and checklist form that can be used as a tool to promote backhoe safety.



### **Hands-On Front Exercises:**

- Machine Inspection / Start Up
- Travel With and Without Loads
- Front Loader Operations
- Loading Dump Trucks
- Return to Dig—Auto Detent
- Back Blading

### **Hands-On Rear Exercises:**

- Setting Stabilizers
- Throttle Settings
- Main Boom
- Curling Bucket Combination
- Safe Spotter Positions
- ...and more!

