

## Basic Heavy Equipment Operations & Safety Training

**Target Audience:** This CEU-accredited course (#DS/DW/WW-02094010 at 0.7 CEU) is designed specifically for DOT, municipal public works, parks, streets/roads, water, wastewater, distribution/collection and/or storm water utility workers or any other government entity employees who may be called on to operate basic heavy equipment.

The course is also recommended for emergency backup personnel who may be called on to use basic heavy equipment in special circumstances such as after a natural disaster or any other reason where no other operators are available. Other recommended participants are crew leaders, division supervisors, agency safety officers, department safety coordinators, general safety trainers and/or fleet team members.

Additional applications would be as an orientation for new operators and a good refresher for seasoned operators.

\*In some states, this course may be eligible towards C.E.U.s



# For more information or to inquire about future training events:

Email: info@wetrainamerica.com Telephone: 813.995.8872 Website: WeTrainAmerica.com

## **Classroom Part**

Accident Case Studies: Reviews a recent history of public sector heavy equipment accidents. Relative OSHA Standards and general 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 heavy equipment 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.

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

**Operator Safety Rules:** This section covers the rules that operators must obey to prevent serious accidents.

**Essential Pedestrian Worker Rules:** Includes a number of close proximity rules for employees acting as spotters or who perform special "close-to-machine" tasks such as final pipe positioning or installing plugs.

**Non-Essential Pedestrian Worker Rules:** Includes a number of 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 Heavy Equipment Operation Tasks:** Use of hand signals, rigging, tag lines and handling suspended loads, travel on roads and "trailering" are covered here.

**Preparing for an Unattended Work Zone:** Discusses 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 heavy equipment safety.

## Classroom:



- Machine Orientation
- Work Zone Hazard Analysis
- Job Set-Up—Pre-Job Checklists
- Operator / Pedestrian Worker Rules
- Special Operation Tasks
- ...and more!



## **Outside Exercises—Hands-On Operations:**

\*One piece of equipment per training class\*



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

#### Dump Truck

- Vehicle Walk-Around Inspection
- Vehicle Entry and Start Up
- Basic Controls
- Air Brake Testing Procedures
- Travel on Roadways

#### Front End Loader

- Machine Inspection
- Start Up
  - Travel
  - Travel with Loads



#### Gradall Excavator

- Machine Inspection
- Start Up
- Travel on Roadways
  - Front and Rear Operations



#### Skid Steer

- Machine Inspection
- Start Up
- Travel
- Travel with Loads
- Skid Steer Operations

#### Backhoe: Back Operations

- Setting Stabilizers
- Throttle Settings
- Main Boom
- Curling Bucket Combination
- Safe Spotter Positions
- ...and more!
- Travel on Job Sites
- Vehicle Backing Exercises
- Driver/Spotter Exercises
- Loading and Load Dumping
- ...and more!
- Front Loader Operations
- Loading Dump Trucks
- Back Blading
- ...and more!
- Digging Ditches and Trenches
- Lifting and Moving Debris
- ...and more!
- Loading Dump Trucks
- Use of Special Attachments
- Maneuvering in Tight Spaces
- ...and more!

