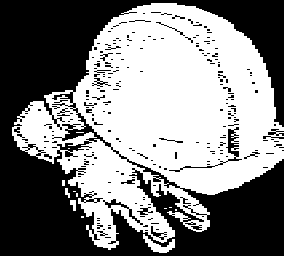



TRAINING GUIDE

VEHICLES & HEAVY EQUIPMENT



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: According to OSHA, falls are the leading cause of death in construction jobs. But, close behind, the #2 cause is being struck by a vehicle or other object. About 75% of these fatalities involve trucks, cranes, and other heavy equipment.

You or a crew member may want to add a personal story about accidents involving vehicles or heavy equipment.

Next, discuss with the crew what vehicle and heavy equipment hazards there may be 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. If you're a vehicle or heavy equipment operator, what's the first thing you should do at the beginning of each shift?**
 - Inspect your equipment, and report any damage or other problems.
- 2. What should your inspection cover?**
 - Windshield and wipers
 - Defogging and defrosting equipment
 - Brakes (both parking and service brakes)
 - Tires

- Mirrors
- Steering
- Operating controls
- Leaking fluids
- Headlights, taillights, brake lights, and turn signals
- Seat belts
- Horn and back-up alarm (loud enough to be heard 200 feet away)
- Roll-over protection structure (ROPS)
- Cab shields or canopies on haulage vehicles.

3. What are some safety rules to follow when operating any type of vehicle?

- Wear a seat belt when operating any type of vehicle, whether it's a truck, bulldozer, loader, or grader.
- Don't exceed the speed limit for the area.
- Don't allow riders unless the vehicle is designed for them.
- Refuel only when the vehicle is turned off and there are no sources of ignition nearby. NO SMOKING signs should be posted in refueling areas.
- Don't run the engine in an enclosed area unless there is enough ventilation.

4. Before you move heavy equipment, what safety measures should you take?

- Make sure there are warning signs, barricades, or flaggers to keep people out of the area.
- Make sure you have a spotter to guide you when necessary.
- Be aware of overhead obstructions, like power lines or trees.
- If you don't have a clear view, walk around the vehicle to check for obstructions.
- Make sure your vehicle is not overloaded.
- Make sure any load you are carrying is secured and stable.

5. How far from a high voltage line must you keep a boom, crane, or lifting equipment? Who is in danger if the equipment contacts the line?

- Keep all equipment at least 10 feet from high voltage lines that carry 50,000 volts or less. The clearance distance is more if the line carries higher voltage.
- Everyone nearby is in danger if equipment contacts the line—not just the operator.

(High Voltage Lines are covered in more detail in a separate Training Guide.)

6. If you're working near moving vehicles or equipment, what are the most important safety points to remember?

- Stay alert at all times.
- Don't listen to the radio; it's distracting.
- Keep a safe distance.
- Keep off the equipment unless authorized.
- Wear a bright vest or jacket if you are working near moving vehicles or heavy equipment. Wear reflectorized clothing at night.
- Stay clear of dumping or lifting devices.

7. Management is required to enforce the safety rules we've discussed. To make sure vehicles are operated safely, what else does management have to do?

- Check that all operators are properly licensed for the vehicles they are using.
- Train workers in specific safety practices related to a particular job.
- Keep equipment in good condition.
- Set up a system to control the traffic flow, both on the site and at junctions with public roads. If barricades and warning signs aren't enough, flaggers are required.

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 vehicles and heavy equipment. 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 vehicles and heavy equipment.

Discuss company rules: _____



COMMENTS FROM THE CREW

Ask: Do you have any other concerns about vehicles or heavy equipment? 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 vehicles or heavy equipment that might help us work safer on this job?

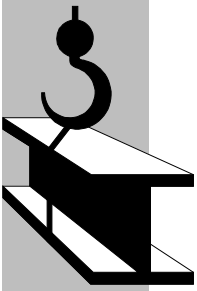
SIGN-OFF FORM VEHICLES & HEAVY EQUIPMENT

Date Presented: _____ By: _____

Project Name/No.: _____ Location: _____

NAMES OF THOSE WHO ATTENDED THIS SAFETY MEETING

<i>PRINTED NAME</i>	<i>SIGNATURE</i>



Construction Inspector Killed by Backing Dump Truck

A 36-year-old construction inspector for the county died when an asphalt dump truck backed over him.

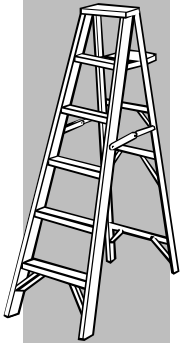


The truck was bringing hot asphalt to a new road being constructed in a housing project. The inspector was wearing an orange reflective vest and hardhat at the time of the incident. The dump truck had a back-up alarm that was functioning properly.

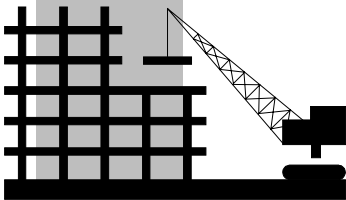
The truck traveled approximately 770 feet in reverse before backing over the inspector. The inspector had his back to the vehicle at the time. The truck driver stated he was traveling approximately 5 to 10 miles per hour when the incident occurred, and that he never saw the inspector.

Emergency medical personnel responded within seven minutes and pronounced the inspector dead at the scene.

April 12, 2000



What should have been done to prevent this accident?



Preventive Measures

Cal/OSHA investigated this accident and made the following recommendations.

Employers should:

- Require use of a second person as a spotter when backing heavy equipment with blind spots.
- Minimize the distance heavy equipment needs to back up to gain access to the work area.
- Consider using additional safety devices on heavy equipment to warn workers of a backing vehicle and to warn drivers when someone is in their blind spot.

This Case Study is based on an actual California incident. For details, refer to California Dept. of Health Services, Occupational Health Branch, Fatality Assessment and Control Evaluation (FACE) Report #00CA005.