



## **Fact sheet 3: Protecting workers on foot in road construction work zones**

*This fact sheet was developed by the National Safety Council concerning safe application and operation of vehicles in highway construction work zones to prevent backovers and educate workers about distracted motorists.*

### **Why should employers educate employees about backover hazards in road construction zones and hazards related to distracted drivers?**

- The conditions of a highway work zone create a hazardous environment where workers may be exposed to low lighting, low visibility and inclement weather in congested areas, in addition to exposure to high traffic volume and speeds.
- According to the National Institute for Occupational Safety and Health, proximity to construction vehicles and motor vehicle traffic exposes workers on foot to the risk of being struck by or backed over by these equipment vehicles if they are not visible to equipment operators. Data from the U.S. Bureau of Labor Statistics show between 2003 and 2007, the most common event associated with work zone fatalities was when workers were struck by vehicles or mobile equipment. Of the workers who were injured by being struck by a vehicle or mobile equipment, nearly 10 percent of the fatalities resulted from workers being struck by a dump truck that was backing up. BLS data also show in that same 5 year period, 70 workers were fatally injured when struck by a passenger vehicle, of that 10 workers were fatally injured by drunk drivers who intruded into the workspace.
- The National Safety Council warns the prevalence of motorists using cell phones while driving has made distracted drivers another threat to workers on foot. The NSC estimates 23 percent of passenger vehicle crashes—1.3 million crashes per year—can be attributed to cell phone talking and texting while driving. Allowing employees to conduct hands-free or handheld business on cell phones while driving represents acceptance of a 300 percent increase in crash risk, according to the NSC.

### **What should employers do to protect workers who must be on foot in a work zone?**

- Provide barricades, adequate lighting, warning signs or signals where person on foot must work or travel through or near heavy equipment operations or congested travel areas.
- Provide turn-arounds and lay out internal traffic control patterns to eliminate congestion.
- Follow guidance in the Manual on Uniform Traffic Control Devices regarding worker safety.
- Provide high visibility safety apparel of proper classification to all workers and implement a system for evaluating when apparel should be replaced. Follow the Federal Highway Administration's (FHWA) 23 CFR Part 634 – Worker Visibility Law.
- Develop a safety policy for properly working back-up alarms (audible above the surrounding noise level) on all equipment that has an obstructed view to the rear.
- Ensure worksite vehicles have working adjustable side mirrors.
- Train workers on proper use and maintenance of adjustable side mirrors.
- Prohibit equipment operators from backing up long distances, and work to minimize the distance trucks need to back up to access the work area.
- Each worker should have a designated back-up person or spotter to signal when it is safe for operators to back equipment into work areas and to make sure everyone keeps clear of the moving equipment.
- Provide training for workers, including spotters, on safe operating practices to prevent back-up related injuries and fatalities.
- Provide training for ground crews on recognizing where blind spots exist for different types of equipment.
- Educate workers on the concept of teamwork in safety.
- Educate workers about hazards related to cell phone distraction while driving.
- Establish a policy to prohibit distraction of wireless devices and cell phones while operating equipment in a work zone.
- Establish a policy to prohibit use of wireless devices and cell phones while walking or working around moving equipment.

### **What should road construction zone workers do to protect themselves?**

- Be aware where heavy machinery is operating and stay in clear view of operation.
- Know where blind spots exist for different types of equipment.
- Never use a cell phone when working around heavy machinery.

- Instruct all drivers and operators of vehicles to stop work when visual contact has been lost and do not resume until it is re-established.
- Perform preventive maintenance checks and services to inspect for equipment defects concerning safety, report problems and follow safe operating practices.
- Eliminate the need for equipment back ups whenever it is practical to do so.
- Report near misses promptly so they can be investigated and corrective action can be taken immediately.

**OSHA standards that apply:**

- 29 CFR 1926.952 – Mechanical equipment
- 29 CFR 1926.601 (b)(4) states that “no employer shall use any motor vehicle equipment having an obstructed view to the rear unless:
  - (i) The vehicle has a reverse signal alarm audible above the surrounding noise level, or
  - (ii) The vehicle is backed up only when an observer signals that it is safe to do so.”
- Occupational Safety and Health Act, 29 U.S.C. §654(a)(1) – General Duty Clause

*Through the OSHA and National Safety Council (NSC) Alliance, NSC developed the fact sheet for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. August 2011.*