

Fatality Assessment & Control Evaluation

Prevention through comprehensive research and investigation

INVESTIGATION/RESEARCH

Fifteen (15) work-related fatalities have occurred since 2001 while a vehicle was backing up. Construction activities accounted for 9 of these fatalities; dump trucks were involved in 5 fatalities. Other vehicle types include an airport tug, a farm tractor, a cement mixer, a forklift, a fuel truck, a utility bucket truck, a road grader, a window delivery truck, and a semi-truck. A **blind spot** is the area around a vehicle or piece of construction equipment that is not visible to operators, either by direct line-of sight or indirectly by use of internal and external mirrors. **Use Spotters** wearing reflective vests when the driver has an obstructed view; the truck contains extended components (such as a crane); or when someone or something could enter the driver's backing path.

LOOK FOR MOBILE EQUIPMENT BLIND SPOTS



www.workzonesafety.org/files/documents/public_awareness/images/Blind_Spots_poster.jpg

IN ORDER TO PREVENT SIMILAR INCIDENTS IN THE FUTURE

- **Install after-market presence detectors on vehicles.** Systems include cameras, additional mirrors, ultrasonic sensing and radar.
- **Develop Standard Operating Procedure (SOP)** for backing vehicles.
- **Develop Driver backing vehicle training.** Training should **include:** driver stopping vehicle if he/she cannot see the Spotter, performing a walk-around to determine obstacles/hazards and site/vehicle clearances, sounding horn prior to backing, and demonstrating backing competency.
- **Develop Spotter backing vehicle training.** Training should **include:** signals to be used and agreed upon with driver, maintaining eye contact and a safe distance from backing vehicle on the driver's side, and demonstrating spotter competency.
- **Learn vehicle's blind spots.** Consult NIOSH Highway Work Zone Safety, Construction Vehicle List (See NIOSH web reference). If vehicle not listed, estimate vehicle blind zone: Sit in driver's seat, have another person walk away from vehicle until driver can see his/her feet, measure distance. For side and rear, repeat process using use side/rear view mirrors. Area within measured distance is blind zone.
- **Develop an Internal Traffic Control Plan (ITCP)** to reduce vehicle backing in work zones and to establish truck lanes and pedestrian walk paths.
- **Ensure Worker Visibility.** Specify appropriate class of high-visibility vests/clothing. (See ANSI/ISEA 107-2010 web reference)

DID YOU KNOW?

- On average, each year there are 292 fatalities and 18,000 injuries each year as a result of a vehicle backing up. (NHTSA)
- You can minimize blind spots as you travel on-the-road. (From National Safety Council)
 - Driver's side mirror: Sit in driver's seat
 - ✓ Roll up window and lean head against it
 - ✓ Adjust driver's side mirror to point just past where you can see your car.
 - Passenger side mirror: Sit in driver's seat
 - ✓ Lean toward center of vehicle
 - ✓ Adjust passenger side mirror to point just past where you can see your car.
- Consumer Reports.org measured the best and worst of passenger vehicle blind spots: www.consumerreports.org/cro/cars/car-safety/car-safety-reviews/mind-that-blind-spot-1005/best-and-worst/0304bli0_best-and-worst-rear-blind-zones.htm

MSU Occupational and Environmental Medicine: www.oem.msu.edu/

NIOSH Highway Work Zone Safety: www.cdc.gov/niosh/topics/highwayworkzones/

National Work Zone Safety Information Clearinghouse:

www.workzonesafety.org/runover_backover

MIOSHA Standards:

www.michigan.gov/mioshastandards

High Visibility Clothing - ANSI/ISEA 107-2010: www.safetyequipment.org/c/std107-2010.cfm

Hazard Alert #11 - 5/5/11

TO REPORT A NEW WORKPLACE FATALITY TO MIOSHA

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MICHIGAN FATALITY ASSESSMENT & CONTROL EVALUATION

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