

## KENTUCKY OCCUPATIONAL SAFETY AND HEALTH SURVEILLANCE (KOSHS)



### *Amputation Injuries Due to Forklifts*

To prevent injuries from forklifts while working:

- Before you operate a forklift, make sure that you are trained and certified.
- Remember if you are on a sit-down type forklift, and it starts to over-turn, lean in the opposite direction, stay with the forklift; don't jump.
- When operating a forklift on site, slow the truck and sound the horn at cross aisles, exits, and other employee traverse points.
- Before dismounting, set the parking brake, lower the forks or lifting carriage, and neutralize controls.

During 2000-2004, there were 1002 amputation claims filed with the Office of Workers' Claims and 13 of these claims involved forklifts. Seven worker deaths resulted from injuries due to forklifts from 2000-2005.

Following are case descriptions of four Kentucky forklift-related cases that resulted in amputations:

**Case 1:** A 21-year old male stock clerk was driving a forklift at an electrical apparatus and equipment company when the forklift overturned. The victim's left foot was injured in the incident and needed to be amputated. He received a weekly workers' claims award due to the injury.

**Case 2:** A 60-year-old female forklift operator who worked in a plastics factory was moving a forklift on site. When she stepped off the forklift, the wheel caught her left foot and



this resulted in an amputation. She received a lump sum workers' claims award.

**Case 3:** A 41-year-old female manufacturing employee was struck by a forklift at work. She sustained a massive injury to her left leg and required emergency surgery. The entire lower leg was amputated. She received a weekly workers' claim award due to the injury.

**Case 4:** A 44-year-old assembly worker in a manufacturing plant was struck by a forklift. He was transported to the nearest hospital where four toes were amputated. He received a weekly workers' claims award due to the injury.

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The American Society of Mechanical Engineers (ASME) defines a powered industrial truck as a mobile, power-propelled truck used to carry, push, pull, lift, stack, or tier materials. Powered Industrial – more commonly known as pallet trucks, rider trucks, forklifts or lifttrucks, can be ridden or controlled by a walking operator. They can be powered through electric or combustion engines.

Forklift operators need to complete training and certification to be declared competent to operate a forklift safely (KY Occupational Safety and Health (KOSH) Standard 1910.178(l)). The person who trains the operator needs to be knowledgeable, experienced and trained to effectively evaluate an operator's competence (KOSH Standard 1910.178 (l)(2)(iii)). When training is completed, the employer needs to certify that the operator was trained and evaluated by recording the operator's name, date of training, date of evaluation, and name of person(s) who performed training (KOSH Standard 1910.178 (l)(6)).

If an injury occurs on the worksite, beginning November 1, 2006, all inpatient hospitalizations resulting from a work-related incident will need to be reported by the employer within 72 hours of occurrence to Kentucky OSHA. If an employee suffers an amputation (requiring hospitalization or not) while at work, all amputations need to be reported to Kentucky OSHA..

**Remember if you are on a sit-down type forklift, and it starts to overturn, lean in the opposite direction, stay with the forklift; don't jump.**

According to the American Society of Mechanical Engineers (ASME)/American National Standards Institute (ANSI) standard B56.1, §5.3.18 [d] [ASME 1993], if a lateral or longitudinal tipover occurs, one should stay with the truck and lean away from the point of impact. If a lateral overturn occurs, exit a rear-access stand-up type forklift by stepping backward. Seat belt restraints shall be used

when operating a forklift. Retrofits are generally available if the forklift does not have a restraint system.

**When operating a forklift on site, slow the truck and sound the horn at cross aisles, exits, and other employee traverse points.**

According to KOSH Standard 1910.178(n)(4), "The driver shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing". While traveling with the forklift, the operator needs to have a clear view of the travel path (KOSH Standard 1910.178(n)(6)). Ensure that travel routes used by forklift operators are free of obstacles and other unsafe conditions.

**Before dismounting, set the parking brake, lower the forks or lifting carriage, and neutralize controls.**

KOSH Standard 1910.178(m)(5)(iii) states that when the operator of a forklift is dismounting within 25 feet of his(her) view, the load needs to be lowered, the controls neutralized, and the brake set. If the operator is over 25 feet away from the forklift, the power needs to be shut off in addition to the above and if the forklift is on an incline, the wheels need to be blocked (KOSH Standard 1910.178 (m)(5)(i)). Ensure that forklift operators do not position themselves between the uprights of the mast, outside the running lines of the truck, or under elevated forks or loads.

**References:**

- 1. National Institute of Occupational Safety and Health, 2001. *Preventing injuries and deaths of workers who operate or work near forklifts*. DHHS (NIOSH) Publication 2001-109. June 2001.**
- 2. Massachusetts Fatality Assessment and Control Evaluation (FACE) report #98-MA-033-01. *Carpet installer killed in forklift tipover at a Massachusetts warehouse*.**
- 3. <http://www.osha.gov/dcsp/ote/trng-materials/pit/pit.html>**

For more information, contact:

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