

# TerranearPMC Safety Share

## Week of July 25, 2011 – Forklift Safety: Still an Issue!

With all the focus generated these days on safety in the workplace, one would think that accidents – serious and even minor mishaps involving forklifts would be a thing of the past; or at least, controlled to the point that such incidents would be considered to have an occurrence rate that would be classified as rare. – yes? Far from it! Last month, June, 2011, a forklift operator in Maryland crashed into a shelving unit, and although emergency response units were able to rush to the scene in a timely manner and try to free the man who was wedged between the shelving unit and his forklift, attempts to revive him were unsuccessful.

OSHA estimates that there are 85 fatalities every year that involve forklifts. In addition, there are 34,900 accidents where forklifts account for incidents that are categorized as *serious* and an additional 61,800 that are considered as non-serious. According to the National Truck Association, there are about 855,900 forklifts operating in the United States. That means that over 11% of all forklifts operating in this country will be involved in some type of accident this year. Therefore, whenever we are using a forklift there is a substantial risk: one that exceeds 1 in 10, that we will experience some type of mishap. This is definitely too high for us not to take notice.

The fatality described above did not occur at a petroleum refinery, or at a chemical plant: it did not happen at a construction site or any other work environment that would be considered as a hazardous or dangerous work place. It occurred at a publishing house warehouse (Random House) while the operator was moving books that were stacked on pallets.

The point is, if such a tragedy can happen in this type of a setting; a work environment that one may describe as non-hazardous or even benign, what about work sites that are truly high-hazard environments? Locations where chemicals and flammables are stored or where surface conditions are uneven and represent potential roll-over hazards with pathways that are riddled with other vehicles and personnel carrying objects from place-to-place as conditions are constantly changing. These typify scenarios that are far more hazardous than a book warehouse.

The Bureau of Labor and Statistics has categorized forklift fatalities into the various environments where such incidents occur. Manufacturing settings represent 42.5% of all forklift fatalities, following by the construction industry with 23.8%. The most common type of forklift fatality involves tipping over (42% of all forklift fatalities), followed by crushing incidents where being crushed between the forklift and a surface represent 25% and being crushed between a forklift and another vehicle is 11%. 10% of all forklift fatalities are due to someone coming into contact with a forklift and being run over and 8% are caused by falling material. The next category represents 4% and involves falling from a platform on the actual forks of the forklift.

The unfortunate truth about all these tragedies is that every single one of these cases was preventable. Yet every year, we seem to be repeating these same statistics. The question has to be asked: “If these incidents are indeed preventable, why do they keep on happening?”

Throughout the years OSHA has conducted a number of investigations to understand the root cause and contributing factors as to why there are so many forklift incidents. OSHA’s conclusion focuses on training. While no one starts out with the innate knowledge, skills and abilities to safely operate a forklift, many people

believe that operating a forklift is similar to operating any other type of vehicle. Of course, this is an incorrect assumption.

Unlike a car or truck, forklifts use the rear wheels for steering and this creates a larger turning arc. Without proper training, it is easy to understand how one may under steer or over steer and come into contact with a stationary object such as a storage rack system or a packed vehicle or fire hydrant while attempting to turn into an aisle or tight path.

Another characteristic of forklifts is what is referred to as the *Stability Triangle*. Through proper training operators are taught about how traveling on uneven surfaces or improper load placement will cause a shift in a forklift's center of gravity and possibly result in a forklift to tip over as these factors may shift the center of gravity outside the vehicle's *Stability Triangle*.

OSHA explains that 42% of forklift fatalities are caused by the operator trying to jump from a tipping vehicle. Through an effective training course, operators are educated about this and are trained in methods to keep the vehicle from tipping as well as mandating the use of seat belts (obviously, this helps to keep the operator inside the forklift should the vehicle tip over).

Other factors that can contribute to a forklift tipping over are:

- Carrying a load outside the rated capacity
- Improper techniques while driving up or down an inclined surface
- Driving too fast while turning
- Driving with a load as the forks are elevated

The OSHA regulation for forklifts can be found in 29 CFR 1910.178, *Powered Industrial Trucks*. In this regulation OSHA discusses the requirements for proper forklift operation. Such requirements include: Designated locations for specific types of forklifts, fueling and storage, battery charging operations, maintenance, proper operating procedures and training.

While OSHA has emphasized the need for operators to be properly trained, it is the responsibility of each project to ensure that training requirements have indeed been met. This requires that the operator have the proper documentation, showing that he/she has successfully completed a course that includes formal classroom instruction, practical hands-on training and an evaluation that the operator can drive and control a forklift effectively and safely. While many organizations require periodic refresher training (typically three years), OSHA mandates that refresher training shall be provided when:

- The operator has been observed to operate the vehicle in an unsafe manner
- The operator has been involved in an accident or near-miss incident
- The operator has received an evaluation that reveals that he/she is not operating the vehicle safely
- The operator is assigned a different type of forklift for which he/she has not been trained
- A condition in the workplace changes in a manner that could affect safe operation of the truck

A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty. **Winston Churchill**