

TerranearPMC Safety Share

Week of September 30, 2013 – Don't let a Near Miss Pass You By

Modern safety philosophy is shaped upon the premise that most accidents are preceded by one or more near misses. As such, near misses can predict accidents. Yet there is a tendency to “push them aside” as it takes time to stop and talk about something that did not occur. Our typical thought process demands that a schedule should not be interrupted for something that might have happened. The following is a true story that resulted in a fatality. As it turns out, prior to this event, a similar circumstance occurred: one in which no consequence was evident. No one was hurt, there was no property damage, nor was the operation or work schedule altered. An investigation was not conducted, thereby allowing a root cause to remain unchecked with no corrective action identified. If only the work crew decided to take the time to discuss these matters, one person on a later shift would not have lost his life, and instead, been able to go home to his family.

A cargo handler at Newark Liberty International Airport in New Jersey was towing a metal airplane tail stand—a metal frame used to support the tail of an aircraft when it is being loaded and unloaded—when the tail stand's central stabilizer, or support, caught on the raised lip of a manhole cover, destabilizing it. The stabilizer had been left down by mistake; when a tail stand is being moved, the stabilizer should be raised.

The tail stand was damaged by the error, and the worker took it out of service. Neither he nor the other two cargo handlers working with him that night thought anything more of the incident. Just an hour later, another cargo handler, 40-year-old Timothy Gallagher, was towing a different tail stand up the same ramp and encountered the same problem—the tail stand's central stabilizer had been left dragging the ground and caught on the same five-eighths of an inch raised manhole cover. This time, though, the impact tipped the tail stand forward. The 1,750-pound tail stand landed on Gallagher's head and shoulders, pinning him to the cargo tug he was driving and causing fatal injuries.

What could have been done earlier to ensure a similar type incident would not occur? It seems that the difference in the two incidents was that in the second instance, the tail stand fell over, while in the first scenario, the support merely destabilized.

NIOSH investigated this incident as part of its Fatality Assessment and Control Evaluation (FACE) program and determined that the worker's death was preventable. According to NIOSH's findings, the worker's life could have been saved by:

- **Commonly available safety equipment.** The cargo tug that Gallagher was driving was not equipped with a protective safety cage. If it had been, the falling tail stand would have been deflected, likely saving Gallagher's life. Because airline cargo handlers commonly face falling object hazards, cargo tugs equipped with safety cages are readily available. In fact, another cargo handling company at the same airport used tugs equipped with safety cages.

- **Training.** As NIOSH noted, federal OSHA found in a separate investigation that the employer's safety training "was not comprehensive or cohesive, and employee awareness of safety was limited." In addition, employees were permitted to handle and use equipment that they were unfamiliar with. In this case, the manufacturer's instructions clearly indicated that the central stabilizer must be raised before moving the stand to prevent it from catching on uneven or protruding surfaces, and that its upper support must be fully lowered before moving the tail stand to reduce tipping hazards. Lacking appropriate training, employees did not realize that catching the tail stand's central stabilizer on the ground did more than cause minor damage to the tail stand—it also created a potentially deadly hazard.
- **Safety interlock devices.** Another simple engineering solution to this hazard would be to equip the tail stand with a safety interlock device that would prevent it from being moved while the central support stabilizer and the upper support were in extended positions. This device would have forced the cargo handlers to render the tail stand safe to move, preventing the types of carelessness and shortcuts that led to this accident.

While the above applications that NIOSH has offered do address corrective actions, they do not explain the two different outcomes between the two events; one where only a piece of equipment was damaged, and the other where a person lost his life. Why didn't the tail stand fall over in the first scenario? In both cases, the tail stand hit the lip of the manhole. It was mentioned that the manhole was slightly raised and thereby, created an uneven surface. It seems that by having the right cover (or repair the manhole outer frame) would have removed the "trip" hazard. As a short-term solution, the uneven manhole surface could have been isolated (caution tape around the manhole). The information could have been passed on to the supervisor, who then could have relayed the hazard to other workers. Information about not leaving the tail stand stabilizer down could have been brought up to fellow workers and therefore, would have prevented the abrupt contact with the manhole cover as well. But instead, the tail gate was marked as damaged and removed from service without informing others.

In our daily activities we frequently encounter something that needs to be corrected or communicated to our fellow workers. Simple things like the paper cutting board's blade (in the office supply room) being left in the "up" position should never go ignored. Of course things can get much more complicated when we are out in the field where heavy equipment and multiple operations and tasks are occurring simultaneously and within close proximity to each other. It may seem petty at the time to bring it up, but unidentified hazards, no matter how small – such as uneven manhole covers – should be brought to the attention of all. Tailgate meetings and 2-minute drills provide us with the opportunity to do these. Of course hazards that present eminent danger need to be addressed immediately. The point is, we should not ignore hazards or let our fellow workers ignore them.

Do the right thing. It will gratify some people and astonish the rest.

Mark Twain