

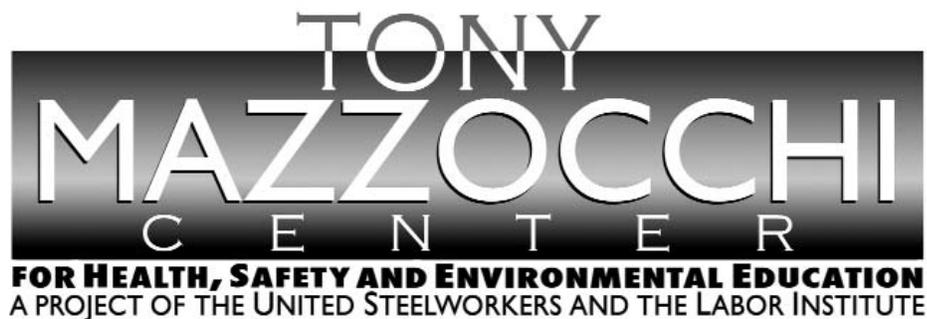


Forklift Hits Truck

Purpose

To share “lessons learned” gained from incident investigations through a small group discussion method format.

To understand “lessons learned” through a Systems of Safety viewpoint.



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Lessons Learned

Volume 07, Issue 92

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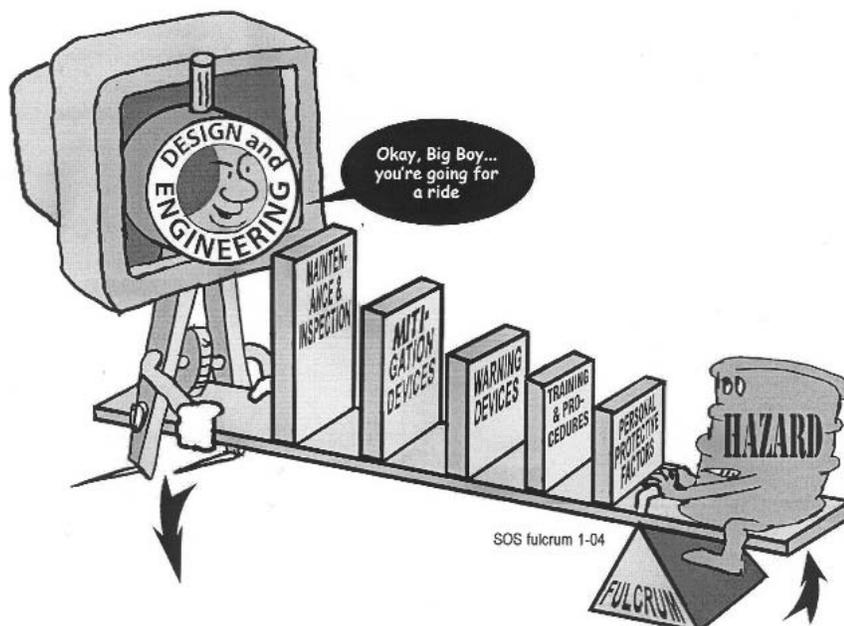
Background Information

Before beginning this Lessons Learned, please review this and the next page which contain information that will introduce the concepts of Lessons Learned and Systems of Safety.

Creating a safe and healthy workplace requires a never ending search for hazards that sometimes are not obvious to us. These hazards exist in every workplace and can be found by using various methods. Lessons Learned are just as the name suggests: learning from incidents to prevent the same or similar incidents from happening again.

Systems Are Not Created Equal: Not equal in protection and not equal in prevention.

Using our Systems Focus to uncover system flaws or root causes is only one part of controlling hazards. We also need to look at the systems involved to decide on the best way to deal with the problem. The most effective way to control a hazard is close to its source. The least effective is usually at the level of the person being exposed. The system of safety in which the flaw is identified is not necessarily the system in which you would attempt to correct the flaw.



Major Safety System	Design & Engineering	Maintenance & Inspection	Mitigation Devices	Warning Devices	Training & Procedures	Personal Protective Factors
Level of Prevention	Highest—the first line of defense	Middle—the second line of defense			Lowest—the last line of defense	
Effectiveness	Most Effective	←————→			Least Effective	
Goal	To eliminate hazards	To further minimize and control hazards				To protect when higher level systems fail
EXAMPLES OF SAFETY SUB-SYSTEMS**	Technical	Inspection and Testing	Enclosures, Barriers Dikes and Containment	Monitors	Operating Manuals and Procedures	Personal Decision-making and Actions HF
	Design and Engineering of Equipment, Processes and Software	Maintenance	Relief and Check Valves	Process Alarms	Process Safety Information	Personal Protective Equipment and Devices HF
	Management of Change (MOC)**	Quality Control	Shutdown and Isolation Devices	Facility Alarms	Process, Job and Other Types of Hazard Assessment and Analysis	Stop Work Authority
	Chemical Selection and Substitution	Turnarounds and Overhauls	Fire and Chemical Suppression Devices	Community Alarms	Permit Programs	
	Safe Siting	Mechanical Integrity	Machine Guarding	Emergency Notification Systems	Emergency Preparedness and Response Training	
	Work Environment HF				Refresher Training	
	Organizational (must address a root cause)				Information Resources	
	Staffing HF				Communications	
	Skills and Qualifications HF				Investigations and Lessons Learned	
	Management of Personnel Change (MOPC)				Maintenance Procedures	
	Work Organization and Scheduling HF				Pre-Startup Safety Review	
	Work Load					
	Allocation of Resources					
	Buddy System					
	Codes, Standards, and Policies**					

HF - Indicates that this subsystem is often included in a category called Human Factors.
 * There may be additional subsystems that are not included in this chart. Also, in the workplace many subsystems are interrelated. It may not always be clear that an issue belongs to one subsystem rather than another.
 ** The Codes, Standards and Policies and Management of Change subsystems listed here are related to Design and Engineering. These subsystems may also be relevant to other systems; for example, Mitigation Devices. When these subsystems relate to systems other than Design and Engineering, they should be considered as part of those other systems, not Design and Engineering.

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Title: Forklift Hits Truck

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Lessons Learned Statement

Large worksites with a lot of outdoor activity have many moving vehicles: forklifts, pickup trucks, flatbed trailers and delivery trucks.

This is sometimes a challenge for *Work Organization*, a subsystem of the **Design and Engineering System of Safety**. But, no matter how big the challenge, there has to be designated areas for parking pickups, golf carts and bicycles that will not interfere with the workers who use industrial vehicles.

It is especially challenging when the work area for forklift drivers may change every day. Forklifts, though useful and necessary in every workplace, are cumbersome, slow moving and it is not very easy to see the immediate area surrounding the lift while operating.

That's why it is important to make sure all of the other vehicle operators are aware of the forklifts' shortcomings and give a wide berth to them. The **Training and Procedures System of Safety** is very important when dealing with motorized vehicles. If the driver of the pickup truck in this incident had known the intentions of the work crew, he may have rethought his decision to park near the forklift.

Discussion

A worker was operating a forklift; moving scrap equipment that had been sorted and cut down. The pre-job briefing included a discussion on the need to do a 360-degree walkaround of the forklift before starting and the use of a spotter while moving the bulky materials.

Everything went according to plan until the crew took a break. While the forklift was properly parked and shut down, another worker arrived in the area to measure some piping stored nearby, and parked his pickup truck about 10 or 12 feet behind and to the left of the forklift. The pickup driver did not know the crew was only on break and would return shortly.

When the crew returned from break, they didn't see anyone around the pickup truck and did not know when, or if, the driver would be returning. They did a 360-degree walk-around and decided they had enough room to perform the job that needed to be finished before shift end. The forklift operator needed to back up a little to get into position to get another load off of the flat bed truck that held the scrap.

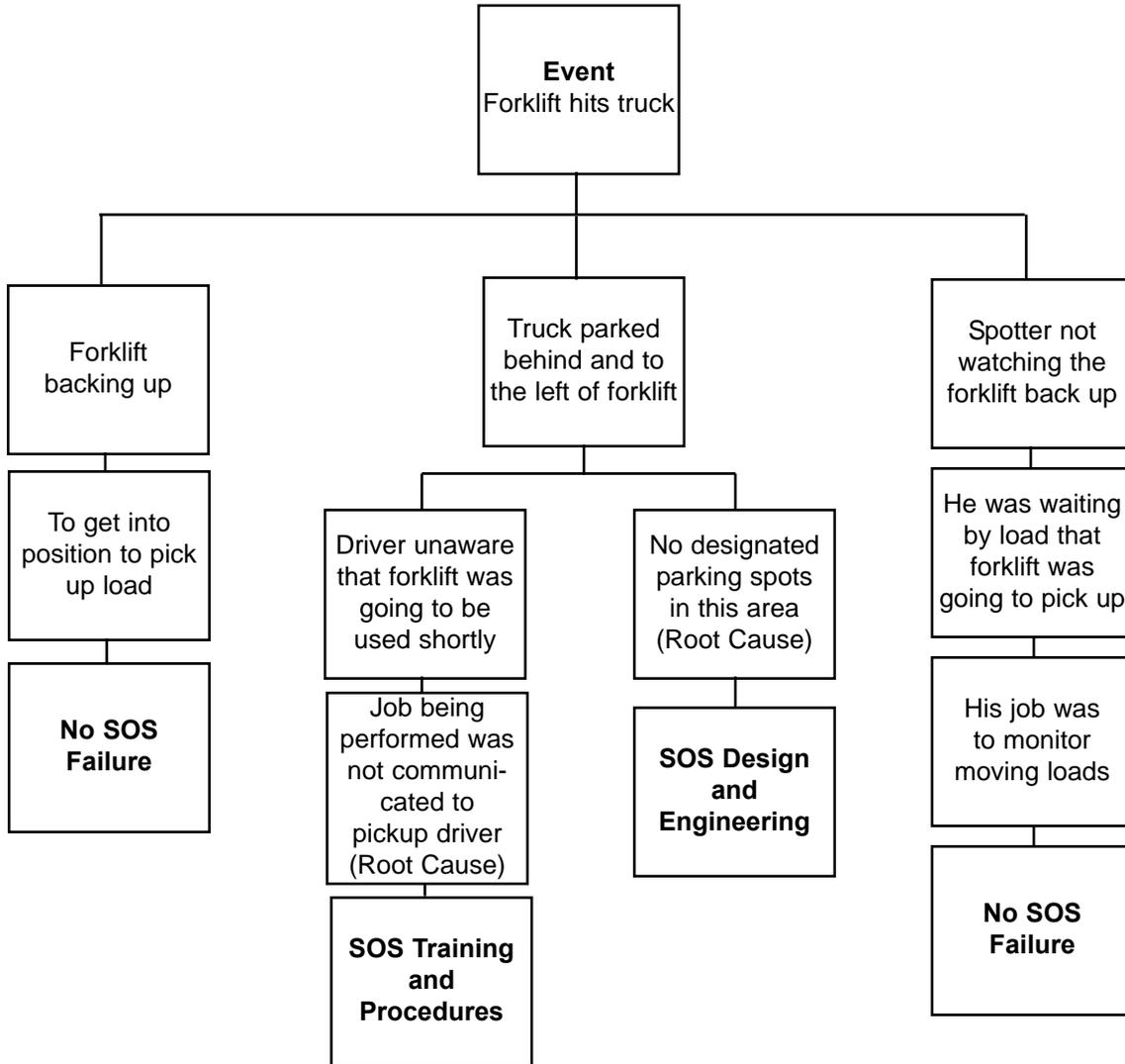
While he was backing up, the counter weight on the back of the forklift hit the right front fender of the pickup truck. There was no spotter at the time because he had been told to monitor the forklift while it was carrying a load; so the spotter was positioning himself by the scrap load that was going to be moved.

The driver of the pickup truck was approximately 60 feet away from the area when he heard the backup alarm on the forklift. He turned around just in time to see the forklift hit the truck. It was noted that there are no designated parking spaces in that area.

The truck sustained moderate damage, but was still operable. There was no damage to the forklift.

Analysis

The Logic Tree is a pictorial representation of a logical process that maps an incident from its occurrence, “the event,” to facts of the incident and the incident’s root causes.



Recommended Actions

1. Designate areas for parking in all work areas of facility. These designated areas must be away from any traffic areas or work areas. If needed, bicycles can be used to ride from parking area to work zones.
2. Give “stop work authority” to all employees.
3. Review procedures with all who drive pickups at the site, reminding them that forklifts don't have the visibility that trucks have.
4. Forbid parking within 50 feet of forklifts or work areas with moving equipment.

Education Exercise

Working in your groups and using the Lessons Learned Statement, Discussion, Analysis and Recommended Actions, answer the two questions below. Your facilitator will give each group an opportunity to share answers with the large group.

1. Give examples of ways to apply the Lessons Learned Statement at your workplace.

2. Of the examples you generated from Question 1, which will you pursue in your workplace? (**Note:** When we say something you may pursue, we mean a joint labor-management activity or a union activity rather than an activity carried out by you as an individual.)

Trainer's Lessons Learned Success Inventory

Following a Lessons Learned (LL) session, **the trainer who led the LL** should complete this form. This information will: 1) Help you reflect on the successes and challenges of the session; 2) Help USW with new curriculum development; and 3) Help USW as a whole better understand how the LL Program is supporting their workers.

By reviewing LL from different sites or from other areas of their workplaces, workers are able to analyze the information and apply these lessons to their own workplaces in order to make their workplaces healthier and safer.

1. Site name (if there are participants from more than one site, please list all).

2. Date of LL training _____
3. LL number used in today's Training _____
4. Your name _____
5. **Summary of Education Question 1:** Please summarize participants' examples of ways to apply this LL Statement to their workplace.

Please continue on reverse side.

6. **Summary of Education Question 2:** Please summarize which actions or recommendations participants discussed pursuing at their workplace(s).

Thank you for completing this form.

EVALUATION

Lessons Learned: Forklift Hits Truck

Please answer the two questions below:

1. How important is this lessons learned to you and your workplace? (Circle one.) Rate on a scale of 1 to 5, with 5 being the most important.

1	2	3	4	5
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2. What suggestions would you make to improve this Lessons Learned?

End of Training Trainer's Instructions

Please complete the information below.

Trainer's Name _____
(Please Print)

Date of training: _____

No. of Participants: Total _____ Hourly _____ Management _____

Location of Training: _____

USW Local # _____

Send:

1. This page;
2. The Education Exercise (page 8);
3. The Trainer's LL Success Inventory form (pages 9 and 10);
4. The evaluation for each participant (page 11); and
5. The Sign-in sheet (page 13) to:

Doug Stephens
United Steelworkers
3340 Perimeter Hill Drive
Nashville, TN 37211

Thank you for facilitating the sharing of this
Lesson Learned with your coworkers.

