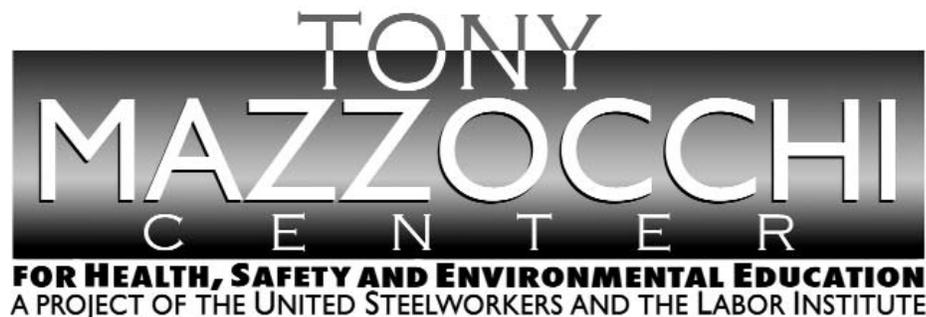


Fork Truck Accident While Unloading Trailer

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 06 Issue 2

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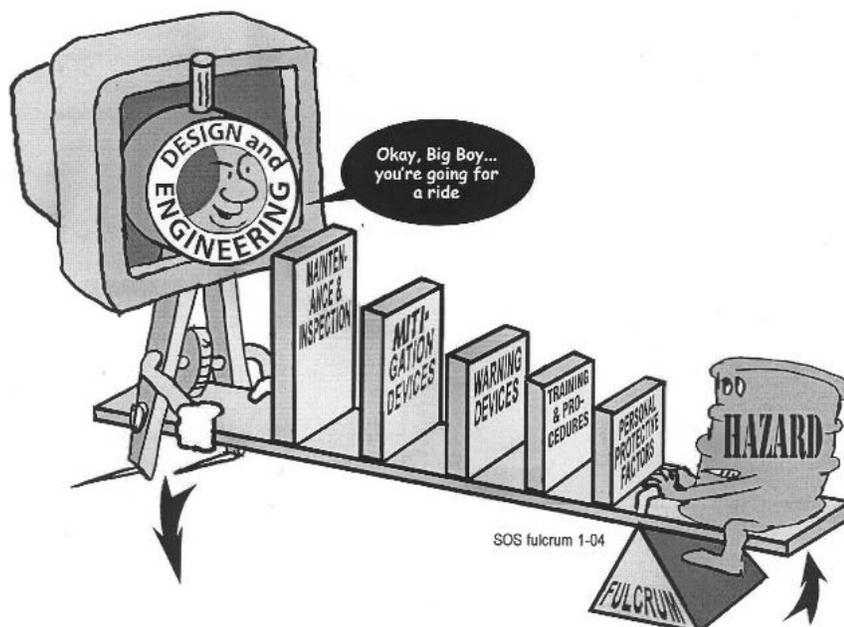
Background Information

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.

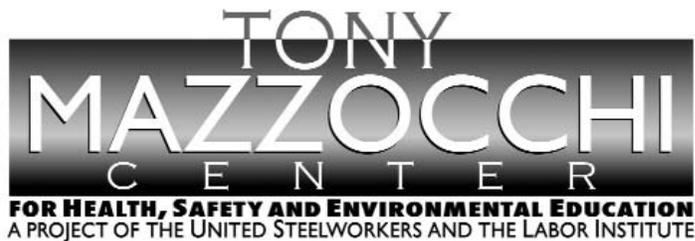
Systems Are Not Created Equal: Not equal in protection and not equal in prevention.

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.



Safety Systems	Design & Engineering	Maintenance & Inspection	Mitigation Devices	Warning Devices	Training & Procedures	Personal Protective Factors
Level of Prevention	Highest — the first 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 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 (PPE) and Devices _{HF}
	Management of Change (MOC)	Quality Control	Shutdowns & 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		Emergency Notification Systems	Emergency Preparedness and Response	
	Work Environment _{HF}				Training	
	Organizational				Information Resources	
	Staffing _{HF}				Communications	
	Skills and Qualifications _{HF}				Investigations and Lessons Learned	
	Management of Personnel Change (MOPC)					
Workload						
Work Organization and Scheduling						
Allocation of Resource						
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.



Lessons Learned

Title: Fork Truck Accident While Unloading Trailer

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Lessons Learned Statement

The inability to utilize the dock locks, hard to use wheel chocks and the sole reliance upon trailer brakes to secure a trailer at a loading dock added up to an injured employee. *Systems of Safety* are utilized to provide prevention from this type of incident. The protection provided by the redundant mechanical systems of dock locks, wheel chocks and trailer brakes provide a well defined **Design and Engineering Systems of Safety** approach. The practice of operating with only one of the three mechanisms being utilized eliminates the protection afforded by the redundant design.

Despite previous reports of the condition of the dock locks, there was no action taken within the **Maintenance and Inspection Systems of Safety** to clean or repair the equipment. No review was made within the **Design and Engineering Systems of Safety** to review if better technology was available for the environment in which these locks operated.

The wheel chocks, while very effective in securing the trailers, were difficult to remove after loading and unloading and therefore became a nuisance most often avoided. Despite repeated complaints and non-use, there was never a **Design and Engineering** review to see if new or better designs of wheel chocks were available.

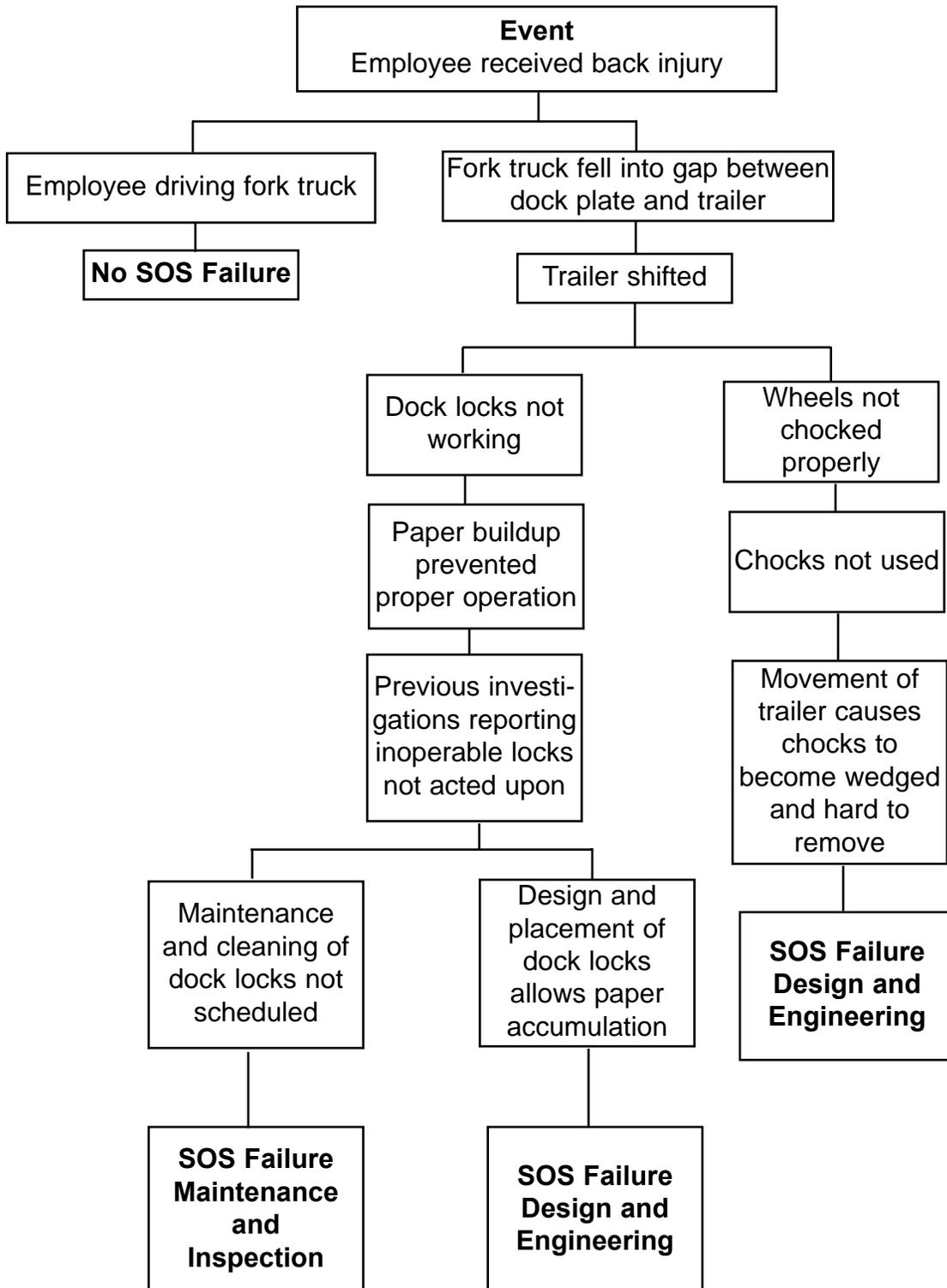
The **Training and Procedures *Systems of Safety*** for the fork truck drivers should include visual checks to assure all securing mechanisms are operable prior to proceeding with their entry into the trailer. An administrative policy that states that the job will not begin or will be discontinued at the first failure of any of the three mechanisms would provide maximum protection through the **Design and Engineering** safety sub-system of *Organizational Policies*.

Discussion

As a fork truck operator was entering a trailer to unload it, the trailer moved away from the dock resulting in the rear wheels of the fork truck entering the divide between the dock and the trailer. The operator received a back injury from the jarring. Upon investigation, it was discovered that the trailer was not chocked and only the trailer brakes were being used to secure the trailer to the dock. Workers indicated that when they used the wheel chocks they would become wedged and very difficult to remove. Also, dock locks were available; however, paper buildup in the outside dock area was such that it impeded the use of the dock locks. Although the operator was not certified, his trainer reported that he was performing the job properly. Previous investigations were performed to address the issue of the non-working dock locks.

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. Keep dock locks in working order at all times.
2. Require that wheels be chocked, trailer brakes secured and dock locks be in place before unloading can begin.
3. Seek new type of chocks that are easier to remove.
4. Seek newer dock locks that are more dependable in the environment in which they exist.
5. Training and procedures for fork truck drivers should require visual conformation of chocks in place, dock locks secured and trailer's brakes applied before entering the trailer.

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. Complete the chart below by:

- Putting an “X” beside the recommended actions you think your employer would implement at your workplace.
- Putting an “X” beside the recommended actions you think should be implemented at your workplace.
- Prepare to share with the group the reasons for your answers.

Employer	Recommended Actions	You
	1. Keep dock locks in working order at all times	
	2. Require that wheels be chocked, trailer brakes secured and dock locks be in place before unloading can begin.	
	3. Seek new type of chocks that are easier to remove.	
	4. Seek newer dock locks that are more dependable in the environment in which they exist.	
	5. Training and procedures for fork truck drivers should require visual conformation of chocks in place, dock locks secured and trailer's brakes applied before entering the trailer.	

EVALUATION

Lessons Learned: Fork Truck Accident While Unloading Trailer

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 this page **plus the Education Exercise and Evaluation for each participant** to:

**Doug Stephens
United Steelworkers International Union
3340 Perimeter Hill Drive
Nashville TN 37211**

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