

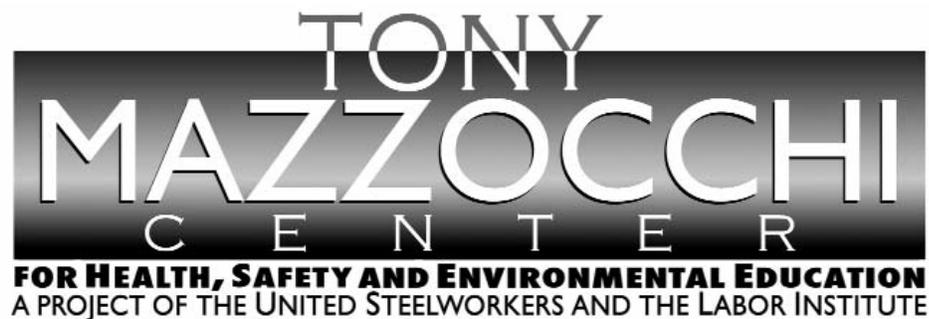


Paper Roll Vibrating on Catalog Rewinder

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 09, Issue 29

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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 Design and Engineering of Equipment, Processes and Software Management of Change (MOC)** Chemical Selection and Substitution Safe Siting Work Environment HF	Inspection and Testing Maintenance Quality Control Turnarounds and Overhauls Mechanical Integrity	Enclosures, Barriers Dikes and Containment Relief and Check Valves Shutdown and Isolation Devices Fire and Chemical Suppression Devices Machine Guarding	Monitors Process Alarms Facility Alarms Community Alarms Emergency Notification Systems	Operating Manuals and Procedures Process Safety Information Process, Job and Other Types of Hazard Assessment and Analysis Permit Programs Emergency Preparedness and Response Training Refresher Training Information Resources Communications Investigations and Lessons Learned Maintenance Procedures Pre-Startup Safety Review	Personal Decision-making and Actions HF Personal Protective Equipment and Devices HF Stop Work Authority
	Organizational (must address a root cause) Staffing HF Skills and Qualifications HF Management of Personnel Change (MOPC) Work Organization and Scheduling HF 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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Lessons Learned Statement:

Through the **Design and Engineering System of Safety**, the hazard is eliminated before workers are hurt. Creating a follow-up procedure for non-conforming rolls (**Training and Procedures System of Safety**) and installing an alarm to warn the winder operator that the slitter blades have been raised (**Warning Devices System of Safety**) will reduce, or totally eliminate, a situation where paper is wound onto split cores.

In the absence of the ability to totally eliminate hazards using **Design and Engineering**, another **System of Safety** may be introduced. The use of **Warning Devices** will make the winder operator aware that the slitter blades are no longer cutting the paper into two rolls and the paper is winding onto split cores. By clearly marking the roll tickets, writing on the outside of the rolls and entering the information into the run log, the hazard can be minimized by making others aware of the "cull" roll.

Through the **Training and Procedures System of Safety**, workers will be trained on how to recognize and separate the split core rolls of paper, or to cull them for recycling, in the event they cannot be separated. They will also learn the importance of following up on non-conforming products.

Discussion:

During the morning shift, the supervisor was called to the rewinder machine in the Catalog Mill. He was shown a roll of paper that had been sent to the rewinder to be cut down. The roll of paper had begun to vibrate and shake as it was being run. An investigation by the operator identified the roll as having split cores.

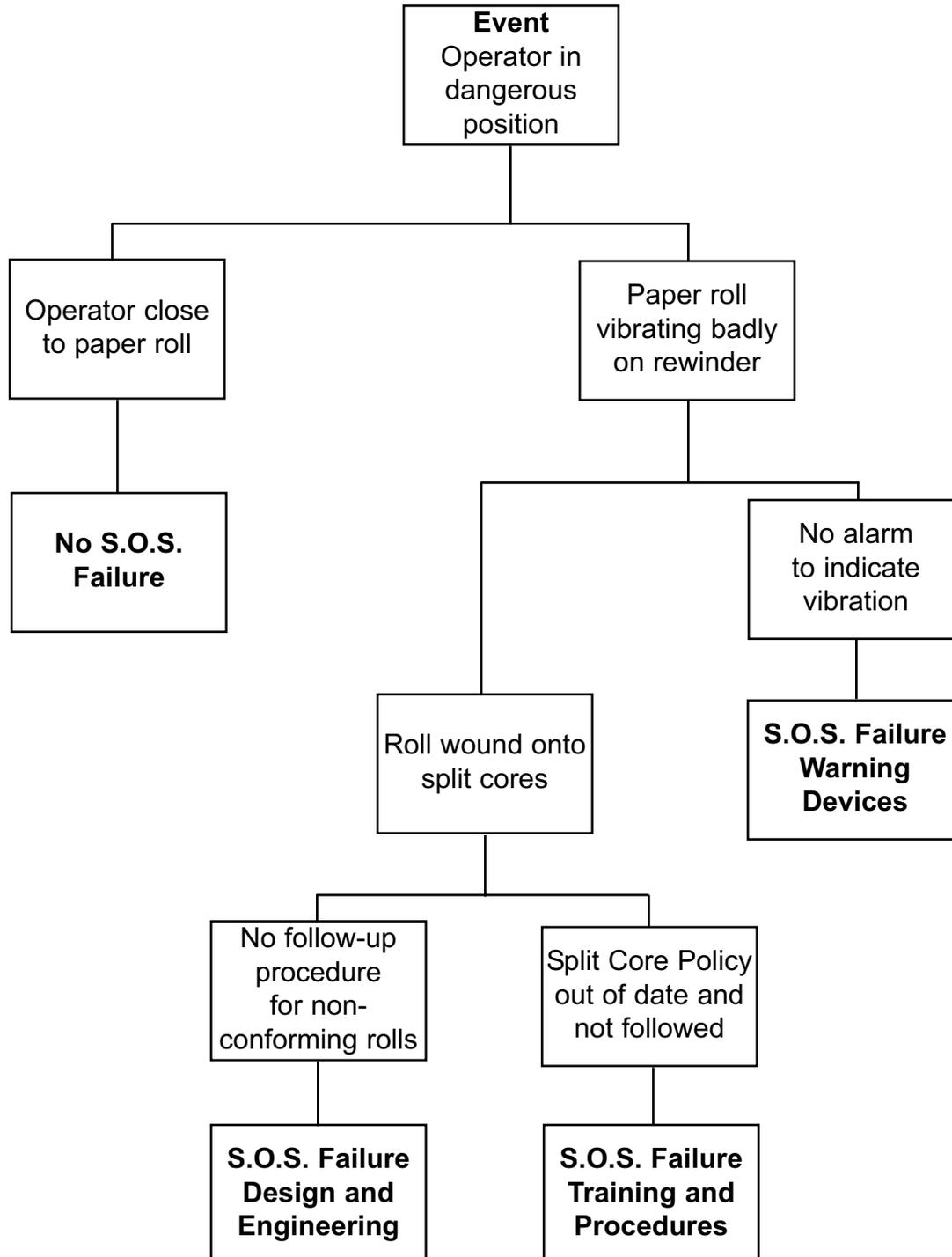
Split cores typically happen during the winding process when, due to order changes, error or other reasons, slitters are raised and paper intended to be slit into two separate rolls is wound into one roll on two cores. Paper wound onto two cores tends to vibrate badly when wound off on the rewinder to be cut down, creating a serious safety hazard to workers in the area, as well as possible damage to the rewinder. For this reason, only cores of the same length as the paper are to be used. According to policy, rolls with split cores are not supposed to be put into inventory, but identified as “culls,” cut down and reused in the system.

There was no record of the core’s label number since the roll had been produced over two years prior to being discovered and the roll had no markings identifying it as having “split cores.” Luckily, no one was injured in this incident.

After this near-miss, the policy concerning handling of split cores was changed to state that rolls with split cores would be separated at the winders or cut down and reused if they could not be separated. No split rolls are to be sent to the rewinder.

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. Develop and implement a procedure that initiates an immediate follow-up on rolls that do not meet the manufacturing guidelines and specifications established by mill policy.
2. Update the Split Core Policy to require the date non-conforming product was run, description of the non-conformance, size, marking and disposition of the product throughout the process.
3. Review warning devices on the winder. Determine if any are in place at slitter blades and install if none are present or functional.
4. Train all machine crews, including new hires and persons newly assigned to the winders, on the updated Split Core Policy.

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 actions or recommendations participants discussed pursuing at their workplace(s).

Thank you for completing this form.

EVALUATION

Lessons Learned: Paper Roll Vibrating on Catalog Rewinder

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:

<p>If you are a TOP Site (excluding DOE TOP Sites)</p>	<p>Send to: Steve Cable 2915 Gradient Drive St. Louis, MO 63125</p>
<p>All other sites (including DOE TOP Sites)</p>	<p>Send to: Doug Stephens United Steelworkers 3340 Perimeter Hill Drive Nashville, TN 37211</p>

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



SIGN-IN SHEET *(Please print clearly.)*

Class Title: _____ **Class Completion Date:** _____

Location (City, State)/Facility: _____

Grant Program: _____ **Dist. & LU #:** _____

Instructors: 1) _____ **2)** _____

3) _____ **4)** _____ **5)** _____

Name (print first and last)

Check one:

		Hourly	Management
1			
2			
3			
4			
5			
6			
7			
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10			
11			
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