USW’s Experience with Significant Injury and Fatality Elimination

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USW Representation

- Largest Union in the Pulp and Paper Sector
- Approximately 70% of the mills
- Approximately 50% of converters
USW Pulp/Paper Sector Fatalities
2005 – 2017

- Only those reported to the USW
- Reporting is better for members than supervisors, contractors and other non-members
- These statistics do not include occupational disease
2017 USW Fatalities Reported to HSE (by Industry)

As of May 8, 2017

- Basic Steel: 2
- Heating A/C: 1
- Indus. Mach.: 1
- NonFerrous: 1
- Paper: 5
- Private Sector: 2
- Utilities: 2
- Woods: 5

19 Fatalities
USW Paper Sector Fatalities 2013 – 2017

- Hazardous Substances: 37%
- Falls: 24%
- Mobile Equipment: 24%
- Caught-In: 12%
- Heart Attack: 3%
2017 USW Serious Injuries Reported to HSE by Industry

As of May 8, 2017

34 Serious Injuries
Examples of USW Activities with Paper Sector Employers

• Top level UMHSECs
• Annual Safety and Health Conferences
  – Domtar
  – International Paper
  – PCA
  – Resolute Forest Products
• Many other negotiated projects
USW Sharing Information within the Industry

HAZARD ALERT

Fatal Incident Involving a Recovery Boiler and Salt Cake Engulfment at a Paper Mill

Two USW mechanics were attempting to replace a broken drag chain conveyor inside the econsumer ash hopper of a recovery boiler on the third floor, when they were engulfed by falling salt cake approximately 40-50' above from the fifth floor. The recovery boiler had been down for three days due to a small (modest) leak. While the recovery boiler was water washed, people hard to reach areas of the econsumer and associated unit equipment were not sufficiently cleaned. A contractor had been called on to clean the salt cake around the drag chain. Unfortunately, one of the mechanics died as a result of the incident, the other was taken to an area hospital where he was treated and released, but will miss days of work.

Considerations to Prevent an Occurrence:
- Identify all areas where salt cake can build up on spoiled walls, in ductwork, etc. Work with the recovery boiler manufacturer,AMA/and/or control these areas with the hierarchy of controls.
- Work with the recovery boiler manufacturer to have sufficient access doors available in the direct work area to allow for maintenance and inspection.
- Employers must be risk trained, provided with written procedures that calls for opening all access doors, all floors, for inspection and complete water washing from the bottom floor down to the bottom floor, including outlet ductwork.
- Develop training materials: videos, photos, etc., to aid with hazard identification and controls needed for safe operation, servicing and maintenance of recovery boilers, including water washing inside all areas of the recovery boiler and problem areas.
- Install baffling where possible to provide washout protection for work areas.
- Ensure a robust Permit-Required Confined Space program and procedures.
- Ensure effective communications are established and maintained with contractors when they are needed.
- Maintain an experienced workforce of both salaried and hourly employees.

HAZARD ALERT

Fatal Incident Involving a Wood Chip Reclaimer at a Paper Mill

A 20-year employee and USW member who recently transferred from the converting plant to the wood yard was on his last shift of a two week training period running a dozer on the chip pile. He dismounted from the dozer and walked parts of the chip pile for reasons unknown. While standing in the proximity of a chip reclaimer, a portion of the wood chip bed unexpectedly collapsed, unanticipated him. He was working alone at the time of the incident.

Recommendations to Prevent Recurrence:
- All employees new to the job, process, and/or task must be provided with written procedures including, but not limited to, instructing the operator to stay in the cab unless there is an emergency.
- Unless the dozer is broken down or an emergency, always see the cab in designated areas.
- Establish a safety zone around the infeed of the wood chip reclaimers by working with employees and their representatives. Doser manuals can provide assistance.
- Develop training materials: videos, photos, etc., to aid with hazard identification and controls needed for wood chip pile safety—incorporating upset conditions. (Note: Check sheets are not a substitute for proper training materials and procedures. Signatures do not mean compliance, only understanding).
- Training quality must be based on the experience, not the number of calendar days.
- Ensure workers are provided with the tools, skills and knowledge needed.
- Ensure effective communications are maintained by using radios, headsets and microphones.
- Evaluate Management Of Organizational Change process to ensure downgrading, transfer, and staffing issues that impact the line-of-progression, training and meeting ruthless and competitive employees.
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Employers Sharing of Information
USW analysis of 28 fatalities in USW pulp/paper sector

Fatalities in the Pulp and Paper Sector, Jan 2012-Dec 2014

- Mobile Equipment: 32%
- Hazardous Substances: 25%
- Falls: 21%
- Caught in: 14%
- Struck by: 4%
- Heart Attack: 4%
Fatality Areas: Underlying Findings

**Mobile Equipment**

- Cranes, fork/clamp trucks, semi-trailers, struck or pinned
- Circumstances: poor lighting, obstructed visibility
  Conditions: large cement cracks, pits filled with water, lack of floor markings
- In many instances equipment failure preceded accident
NIOSH Safety & Health Topic: Highway Work Zone Safety
Mobile Equipment and Foot Traffic

Fatality Areas: Underlying Findings

**Falls**

- Faulty, old, damaged, unstable equipment or structures
- Open or unguarded vats or tanks
- Use of substandard or damaged equipment normalized
Fatality Areas: Underlying Findings

**Hazardous Substances**

- Chemical fumes, fly ash, black/white liquor, steam, fluid under pressure, combustible dust
- Valve or emergency systems malfunctioned

Photo: Pete Pederson, Special to the Star Tribune

May 28, 2012
Fatality Areas: Underlying Findings

**Caught-in**

- In-going nip points
- Inadequate safeguarding
Don’t just focus on “in-going” nip points!

- Paint charcoal squares where needed for vision
- Signs are not a substitute
Fatality Areas: Underlying Findings

**Struck-by**

- Machinery components
- flying object/debris
Trends/Common Threads

• Long-term employees – high seniority/new to task
• 12-hour shifts** (getting days off?)
• Beginning or end of shift and first day back from vacation or time off
• Hazards known in advance of fatality with no abatement or previous fatality in same workplace by same or similar hazard
• Non-routine work – upset conditions – inadequate MOC and MOOC

**It is difficult to assess 12-hour shifts in relation to fatalities – as a significant amount of the industry is on that work schedule, so it is very likely that the fatality victims were also; however, it is a trend
Trends and Common Threads

- Working alone
- Culture:
  - Management: fix it on the fly
  - Labor: reluctance to exercise Right to Act on unsafe work
- Equipment not maintained and/or inspected
- Drift and deviation acceptance (normalized hazards)
- Outside contractors
- Inadequate training by qualified trainers (including new training new)
- Inadequate ambulance pick-up points and emergency response personnel routes
Making and Converting Paper Safely

• A **10-point plan** to address fatalities in the U.S. Paper Sector

• OSHA leadership suggested to industry leaders they work with USW in **OSHA partnership** to address the fatalities

• **Corporate leaders expressing interest** – meeting on April 27, 2016 with AF&PA safety professionals from member companies across industry

• This 10-Point Plan endorsed by USW local leaders at the 2016 PBC is a **powerful starting point for our work together**
Making & Converting Paper Safely
A Plan to Prevent Fatalities
In the US Paper Industry

Fatalities in the US Paper Industry center around five major areas:

- Mobile Equipment – maintenance powered equipment pushes, pulls, stacks, carries, transfers
- Hazardous Substances – chemical fumes (including white or black liquor) in confined spaces, combustible dust, electrical, heat, chemical and thermal burns
- Falls – from heights and walking working surfaces (substandard, open, unguarded or damaged equipment normalized, pits, tanks)
- Caught In -- machine safeguarding and LOTO
- Struck By – mobile equipment and foot traffic, machinery components move, flying object/debris
Making and Converting Paper Safely

1. Develop **five educational modules** on the main fatality areas that are *particular to the industry*:

   - Mobile Equipment
   - Hazardous Substances
   - Falls
   - Caught In
   - Struck By

   *And Keeping the Underlying Findings in Mind*
Making and Converting Paper Safely

2. Develop blueprint to address inherent hazards in papermaking and converting processes:
   - Removing Broke
   - Conveyors
   - Stock Tanks
   - Confined Spaces
   - Tail and Web Threading
   - Pulpers
   - Head Box
   - Wires
   - Agitators
   - Press Section
   - Corrugators
   - Press Dryer Section
   - Black & White Liquor
   - Sheeters
   - Wax Machines
   - Upset Conditions
   - Hot Work
   - Calenders
   - Jams
   - In-going Nip Points
   - Reel Ups
Making and Converting Paper Safely

3. Develop systems for **clear and effective hazard identification, controls and communications** – from reporting to abatement

4. Develop and sustain **effective near-miss and injury reporting systems** to identify and control hazards – No discrimination or retaliation

**These must be viewed as integral safety tools!**
Making and Converting Paper Safely

5. Accident/Incident Investigation

- Fatalities and Life Altering Accidents
  - Develop systems for review and **fixing of same/similar hazards** in affected workplace, all like employer facilities, domestic and globally, and to rest of industry (domestic and globally)
  - Insure communication of actions taken
  - CSB Hot Work Bulletin and the “Pensacola Door” (recovery boiler hopper saltcake)

- Potential Fatality and Life Altering Accidents
  - Develop same systems and communicate in same way
  - TAPPI communication and CSB Hot Work Bulletin
Making and Converting Paper Safely

6. Develop **Mechanism for Exercising Right to Act and Education** for all Employees and FLSs

- A.k.a. The Right-to-Refuse Unsafe Work
  (Reactive – This needs to be more proactive)
- Leading Companies inviting mechanisms on RTA
- It is a cultural issue that management and labor need to overcome together
Making and Converting Paper Safely

7. Develop and implement **effective maintenance and inspection** programs:
   • Preventative
   • Periodic
   • Predictive

8. Develop and execute **Contractor S&H** programs:
   • Controlling
   • Contributing
   • Exposing
   • Correcting
Making and Converting Paper Safely

9. Develop **Union Paper S&H Representative** in each workplace
   - Full-time hourly position (at most locations) – Union preference key to selection and to chair the Union’s side of the UMHSEC, develop best practices and guidelines
   - Assist in facilitating Right to Act
   - Making and Converting Paper Safety subject matter experts
   - On-going training on program, Union-Management investigations and inspections, hazard id and controls, and the USW’s Looking for Trouble
   - Interface with training programs in the workplace to insure it is adequate and does not create safety issues, including training on new equipment
   - Insure ambulance pick up points and emergency response personnel routes are in place and emergency supplies/equip.
Making and Converting Paper Safely

10. Conduct **Effective Union-Management S&H Committee Training**

- Improves communication and committee function so committee isn’t just a “fix it” committee
- Committees to take action and monitor effectiveness on the Making and Converting Paper Safely Program
- Union Paper S&H Representative co-chairs the Union-Management HS&E Committee
- Union should be involved in corporate safety audits
STAND UP, SPEAK OUT, FOR SAFETY
The Right to Act:
A Mechanism for Raising and Addressing Safety Issues Requiring Immediate Action
Stand Up. Speak Out. For Safety: The Right to Act

• Creates a concrete process for workers to use to speak out when s/he believes assigned task(s) could cause substantial risk of harm.

• **Step 1:**
  • Worker does NOT have to raise issue with supervisor or manager
  • Can raise ONLY with Union Paper S&H Representative/Union S&H Committee Members – or with supervisor/manager as well.
  • Worker’s choice.
Stand Up. Speak Out. For Safety: The Right to Act

• **Step 2**: Union S&H Representative notifies Union officers and engages appropriate supervisor and they conduct a comprehensive Job Safety Analysis (JSA).

• If parties agree on JSA outcome, they refer to the Safety Manager for confirmatory risk assessment.

• If parties do not agree, proceed to **Step 3**.
Stand Up. Speak Out. For Safety: The Right to Act

- **Step 3**: The matter is referred to Senior Manager on site at the time for a Full Risk Assessment (FRA).
- All parties abide by results of FRA, but disagreement shall be noted.
- **Step 4**: Any remaining concerns referred to USW International Paper Sector and Corporate Labor Relations and Safety Officials of both parties.
Stand Up. Speak Out. For Safety: The Right to Act

• **Additional Fundamentals:**
  
  • Essential that all employees and FLSs introduced and educated on the process and that respect is fostered for it. **All levels of management supports shutting a machine and/or process down if necessary.**
  
  • FLSs, Union Paper S&H Rep, S&H Committees and Senior Managers are trained, competent and authorized to carry out specified tasks.
Stand Up. Speak Out. For Safety: The Right to Act

• **Additional Fundamentals:**
  • Discrimination/retaliation for exercising Right to Act will not be tolerated.
  • Right to Act process does not prohibit employees from reporting issues to OSHA, but employees are encouraged to use the Right to Act.
• JSA Analysis Form & Subsequent Action
  • Documents the issues and steps
  • Logs hazards, when like or similar hazards reviewed
  • Actions to take on hazards using the hierarchy of controls
The Right to Act
Job Safety Analysis

Department: Date:

Manager:

Union Safety Representative:

Task in Question:
Stand Up, Speak Out, For Safety

• Adopted Making and Converting Paper Safely
  2016 Paper Conference – 10 point plan
    – Focus: Inherent Hazards in Papermaking Process, Right
to Act and Union Full-Time Safety Representatives

• OSHA Harwood Grant – Preventing Fatalities in
  the Paper Sector
    – Focus: Effective Labor-Management Safety
  Committees – 21st Century Safety and Continuous
  Improvement for Committees
    – Full-Time Safety Representative Training on Hazards
  Inherent to Papermaking and Converting
Save the Date!

- 2018 USW HS&E Conference
  - March 26 – 30, 2018
  - Pittsburgh, Pennsylvania
  - David L. Lawrence Convention Center/Westin Hotel
  - Plenary sessions and workshops