



Fatal Incident Involving a Paper Machine's Secondary Arm and Reel Rail

A USW member and “Quality Paper Tester” at a paper mill was fatally injured when he was caught in between the unguarded area of the pneumatic secondary arm and the reel rail frame of the paper machine while trying to get a broken sheet of paper back on the reel. The worker had been at the paper machine waiting to take a sample of paper for testing.

The reel had turned up a new roll and the secondary arm had kicked the spool out. The next roll of paper was started and the paper sheet completely snapped off. The “broke” paper went downward through the floor opening and onto the conveyor that carries broken paper to the hydropulper. The worker began using a compressed air hose to blow the broken paper sheet back up onto the spool when he was caught-in the paper machine.

Although this was not the worker’s normal job duty, it was a common practice for workers to go under the machine guarding as the lower portion of the guard is approximately three-feet off the floor with approximately a four-foot cutout by design. The four foot cutout in the guarding was designed so workers could perform this task. Having access inside the framework (behind the machine guarding) provided a better angle to use a compressed air hose to blow the broken sheet of paper back onto the spool.

This upset condition was normalized and done around ten times a year. A written procedure did not exist for this task.

Tragically, the USW has experienced a similar fatality. A member was caught in-between the unguarded area of the primary arm and the reel rail of a paper machine. See [“USW Hazard Alert - Fatal Incident Involving a Paper Machine’s Primary Arm and Reel Rail.”](#)



Recommendations to Prevent Recurrence:

- Conduct a hazard analysis with worker participation that focuses on the relationship between the workers and the task, the tools (or lack of) and the environment. Consider the entire machine operation production process, the machine modes of operation, individual activities associated with the operation, servicing and maintenance activities. The results from the analysis may then be used as a basis to design machine safeguarding, energy control program and procedures.
- Install safeguarding that is properly designed, constructed, fitted, securely held in place, not easily defeated, located at an adequate distance from the hazards and does not obstruct the view of the process and hazards.
- Install operator stations and/or cameras to allow operators to view all areas of the machine.
- Develop and document procedures for a manual turn-up with input from the shift crews; update training accordingly.
- Implement a maintenance and inspection system with parts readily available.
- Provide all workers with a Right-To-Act process including, but not limited to: procedures to report hazards; refuse unsafe or unhealthy tasks; and shut down any process without the fear of retaliation. All workers should be trained or retrained annually on the Right-To-Act process.
- Evaluate compressed air showers (blowers) so they are adequate to blow paper over the parent reel to eliminate or reduce extra air valves and hoses.



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This hazard alert is based on an actual incident, and reflects our best understanding of the incident at the time it was written. However, many incidents have multiple causes; this alert may not cover all of them. The purpose of the alert is to illustrate workplace hazards; it is not intended to be a comprehensive report on the incident.