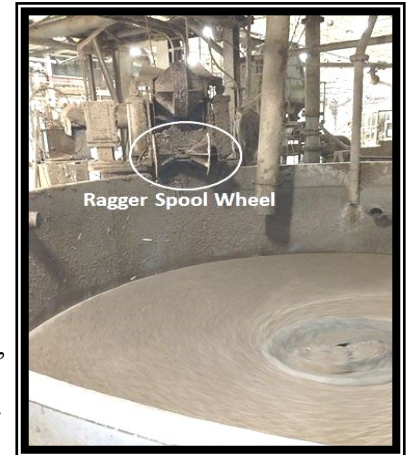




# HAZARD ALERT

## Fall Into a Hydro-pulper Tank Results in a Fatality

A maintenance worker was fatally injured when he fell into a hydropulper tank in a paper mill. There were no eyewitnesses. The victim had been working with a co-worker as part of a hot work permit to conduct welding repairs on a free-spinning ragger spool wheel (or wire guide/tail extractor) that was badly corroded. The victim had been working from a 4-foot step ladder leaning against the tank wall and ragger machine due to the limited working space. At times the victim needed to kneel and lean over the ragger to weld a series of metal plates to the sides of the ragger wheel. During the welding operations, the victim had received a minor electrical shock to his hip and thigh from the ground lead; it is unknown whether a subsequent shock caused him to fall as he was working alone when he fell. The employer had a 100% tie off policy, but no anchor points provided. No procedures or training were provided for this task and the victim was told to repair the ragger wheel on-the-fly due to a push for production.



### Recommendations to Prevent Recurrence:

- Eliminate all metal wires and banding during the bale loading process to keep them out of the tank. This design change will eliminate the fall hazards around the tank associated with the ragger machine and extracting tails.
- If metal wires and banding cannot be removed during the bale loading process, to prevent corrosion, install and use a stainless steel ragger spool wheel on all hydropulpers.
- Workers must never be instructed to repair machines on-the-fly to save on downtime.
- Shutdown and drain or cover hydropulper tank(s) and related equipment in accordance with OSHA's §1910.147 Control of Hazardous Energy when the decision is made to begin servicing or maintenance.
- Remove the ragger spool wheel using an articulating boom lift and make repairs in an alternate place to eliminate/reduce exposures to fall hazards/working from a ladder.
- Conduct comprehensive Job Hazard Analysis for jobs/tasks and working alone.
- Guard fall hazards by use of a standard railing/toeboard or suitable covers/hoods/grates. If a cover/hood/grates are used they must be suitable for the environment (i.e. vibration, atmosphere, strength, secured or hinged) and be user-friendly. If applicable, consider raising the base of a tank or chute. Regardless of height, if workers can fall into or onto dangerous machines, tanks/vats or equipment, standard railings/toeboards or suitable covers/hoods/grates must be provided.
- For certain jobs/tasks, other means of fall protection or personal fall arrest systems may be required (such as, safety nets, a safety harness and lanyard with proper anchor points).
- Welding cables must be inspected for damage or exposed bare conductors and must be removed from service and tagged-out along with any other unsafe welding equipment until its safety has been assured. Repairs must be made by qualified personnel.
- Maintain ladders per the manufacturer's instructions and develop effective training/procedures for employee's use.



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The information provided in this alert is based on preliminary data only and does not represent final determinations pertaining to the nature of the incident or conclusions regarding the cause of this event.