

WISE NEWS



Workplace Industrial Safety and Environment Newsletter

Pulp and Paper Industry
OHS Conference

Health & Wellbeing @ Work

Melbourne, Australia
27th & 28th October, 2009

Our third industry OHS conference has just been announced and is set to take place in late October. This conference addresses the issues of Health & Wellbeing @ Work. Health and wellbeing issues can be wide reaching and encompass topics such as fatigue management; drug & alcohol programs and employee welfare support programs.



Whilst the program and speakers are currently being finalised we are pleased to announce a very special keynote speaker—Dr Sally Cockburn aka “Dr Feelgood”. Dr Sally Cockburn is a GP with over 25 years clinical experience, but is better known for her 18 year media career as Dr Feelgood. Sally is passionate about patient and community issues and is active in health policy and education at many levels. She sits on the Board of Vic Health and Monash Medical Foundation.



In addition to our keynote speaker there will be a number of industry case studies centred on successful elements of health and wellbeing programs.

More information about the conference, including the program and registration brochure will be available shortly. To receive a copy of these conference materials please call (03) 9274 9235 or email info@ppwsafety.org.

In recent months there have been a number of serious incidents in the pulp and paper manufacturing industry, including two (2) fatalities and an amputation at mills overseas. A number of these safety alerts have been reproduced in this edition of WISE News, however we have not been able to provide full text for some or all of the alerts. If you would like to receive copies of these please email Jeni Angus—j Angus@ppwsafety.org.

incidents, but also to serve as a reminder that sometimes the difference between a safe task and an unsafe task can be minute. We must always be vigilant about health and safety at work – and that means not taking shortcuts, properly assessing risks before starting tasks and following documented work procedures. Here’s hoping that the remainder of 2009 sees fewer serious incidents...

These safety alerts are used as a tool to not only share information and hopefully avert similar

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Pulp & Paper Industry
Occupational Health, Safety
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SAFETY ALERTS

Operator Pinned between Parent / Hard Roll & Safety Fence

An operator was recently pinned between a parent/hard roll and a safety fence when the roll moved forward unexpectedly. The operator suffered bruising and soreness but was able to return to work on alternative duties.

They were dressing the roll in preparation for loading into the machine. There were two (2) rolls in the staging bay, one (1) of which was being dressed by the operator. A forklift then delivered a third into the bay. When exiting the immediate area the forklift struck the rolls, causing them to move forward and trap the operator against the safety fence.

The following causal factors were identified during the investigations.

- Forklift driver did not see the operator
- Constricted area
- Door opening mechanism does not identify forklifts in the area
- Too many rolls in area
- No 'safe zone' between the roll and fence

Corrective Actions

- Dome mirror fitted to improve visibility of operators on this machine and others on site
- Floor markings to be improved
- Only two (2) rolls in the staging bay at any time
- SOPs updated to include only two (2) rolls in staging bay at any time and operator to cease dressing rolls and exit bay when forklift is present
- Creation of a safety zone with the installation of two (2) bollards, one metre out from the safety fence
- Door operation to be reviewed
- Site-wide pre-operation check system by fork lift drivers
- Other machine hard/parent roll staging bays to be reviewed.



On Site Amputation

An operator's arm was dragged into a printing press while he was operating a four colour printing press in the United Kingdom recently. The arm was drawn into the press between the plate cylinder and the inking roller. Emergency services were unable to free the injured person's arm and it was decided to amputate the arm at the scene of the accident.

The operator was working alone and there were no direct witnesses to the incident. However, it is believed that he may have been trying to remove dirt from the rotating plate with a piece of card whilst the machine was operating at speed. The guarding was inadequate and the extension guard which normally sits at the feeder side was missing.

Further investigations by Inspectors are taking place and normal operation of the machine is not permitted until it is fully guarded and safe to operate.

Preliminary recommendations for risk reduction out of the UK include:

- Up-to-date activity based risk assessment for any physical intervention relating to the feeder running nip area.
- Documented safe systems of work for access to cylinders and inking rollers during cleaning, preparation and maintenance tasks.
- Guarding standards review for all feeder and extension guards.
- Regular auditing schedule for guarding systems.
- Training audit and review.
- Review of supervision arrangements to support risk reduction program.

The full text of this alert is available by emailing jangus@ppwsafety.org



SAFETY ALERTS

Fatality – Removing Broke from Drying Cylinder

An operator was fatally injured while attempting to remove broke paper from a drying cylinder. The deceased operator was attempting to remove paper from a drying cylinder and became trapped between the drying cylinder and a dryer fabric roll. The area is protected by a gate guard which is secured by a padlock to prevent access when the paper machine is running. The deceased went through the gate to enter into the area inside the paper machine while it was running. He died later in the hospital from his injuries.

Immediate actions, whilst further investigations were carried out, included:

System for control of keys used to unlock safety guards would be changed to ensure access to hazardous area is prevented.

Complete review of guarding carried out to identify where improvements could be made.

Replace padlocked guards with either fixed or interlocked guards where access is required on a regular basis.

Review operator training procedures for **non-routine tasks** to ensure that they are current.

The full text of this alert is available by emailing jangus@ppwsafety.org



Access Gate



General view of the area with the access gate open

Skid Steer Loader Fatality

This alert comes out of the United Kingdom and informs about a fatality where an operator was crushed by the lift arm of a skid-steer loader. The arms and bucket tilt mechanism on skid-steer loaders present potential crushing and shearing hazards when they are moving. Cab fronts are not always enclosed and often entry/exit is via the cab front. Hence, operators can potentially be exposed to these hazards if they lean out of the cab front or, as they exit the cab on front exit/entry machines. People who approach the machines whilst it is operating or perform maintenance are also at risk from the crushing hazards.

One of the safeguards that skid-steer manufacturers install, to help reduce the risk of crushing, is an interlock to prevent unexpected or inadvertent operation of the arms and tilt mechanism. This is normally achieved by the operator raising some form of restraint bar or arm rest which is linked to the machine's hydraulic circuit.

The skid-steer loader in question was fitted with a foot pedal control directly linked to a hydraulic valve. The spool inside the valve should have been locked by an electrical solenoid activated by raising the restraint bar. During the investigations it was found that raising the restraining bar failed to engage the spool lock leaving the pedals active – that is the operator could still operate the lifting arm and tilt mechanism using the pedals even though the restraint bar had been raised. This only occurred if the foot pedals had not quite returned to their neutral position before the restraint bar was raised. When not in neutral, it was found that the solenoid could not engage with the valve's spool.

Two potential causes were identified that would prevent the pedals returning to neutral.

- Even on an adequately maintained machine, the operator may inadvertently rest their foot on the pedal, thereby holding it off neutral.
- Poor maintenance or a build up of material can increase resistance on moving components of the pedal linkages.

If a skid-steer loader is identified as having this particular type of interlock, operators also need to be made aware of the potential for it to fail to engage and reminded that they must:

- Always lower the bucket or attachment flat to the ground before anyone approaches the danger zone created by the arms or tilt mechanism.
- Ensure that not only is the safety bar raised but that the pedal interlock has actually engaged before anybody approaches the danger zone.
- Undertake daily checks of the interlock.
- If the pedals are found to be active with the restraint bar raised it is likely that the pedals are not returning to neutral. This is a potentially dangerous fault and the machine must be taken out of services until the fault is rectified.

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SAFETY ALERTS

Paper Machine Breast Roll Cable Failure

Whilst a paper machine breast roll was being raised into the run position, the front cable sheared following by the rear, due to excessive load causing the breast roll to fall from its suspended pivotal arc position.

This failure resulted in the breast roll colliding with the machine frame, making significant impact which caused damage to the immediate area. Inspections carried out by professional engineers found no structural damage. No personal injuries were sustained. All procedural safety and process checks were performed during the lifting process and subsequent to the incident.

- Identified contributing factors include:
- Cracked bracket holding the vacuum pipe flange.
- Bending of the cable pin.
- Bent stopping blocks which indicate excessive tension had been applied to the lifting cable.

This investigation was very comprehensive and a range of recommendations were introduced including:

- Limit switches on the up movement to prevent raising 5mm from the strike plate.
- Altered installation procedure to ensure continual observation of cable running correctly in the drum.
- Feasibility of applying mechanic brake to the air motor to be investigated.
- Corrosion resistant coating for cable.
- Review platform design to enable better access for breast roll removal.
- 12 monthly schedule for cable replacement.

The full text of this alert is available by emailing jangus@ppwsafety.org

Stacking Guidance Materials – After Fatal Incident

Following a fatal incident involving timber stacks, WorkSafe Victoria recently published industry guidance on safe stacking procedures. Whilst these procedures are aimed at stacking for air and kiln drying purposes, the ration calculations for stacks have wider application and should be considered for all materials and product stacking.

“...The stack

The maximum height of any stack should not be more than four times the shortest width of the pack (ratio 4:1). If the shortest pack width is 1.2 metres, the maximum height should not exceed 4.8 metres.

For timber stacked in the open, a ration of 3:1 may be required to avoid potential hazards from environmental and weather conditions.

Adjust the maximum height to suit environmental and weather conditions such as ground terrain and wind conditions.

If packs to be put in a stack are different in size and mass, the largest pack should be at the bottom and the smallest on the top...”

This Health & Safety Solution can be downloaded from www.worksafe.vic.gov.au.