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Safety Alert

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Workers Sustain Serious Injuries from Conveyor Accidents

Two workers from separate workplaces were seriously injured when working in and around moving conveyor systems.

Incident 1

A worker sustained serious injuries when dragged into a moving conveyor system whilst carrying out cleaning duties with a broom. The worker was sweeping beneath the conveyor when the handle of the broom was “nipped” by the moving conveyor belting which in turn dragged the worker’s left arm between the moving belt and a return idler pulley. The worker remained entrapped by the left arm for more than three hours before being found and released. The worker sustained serious tissue, muscular and nerve damage to the left arm and friction burns to the upper back and head areas.

Incident 2

An operator at a stone crushing/screening plant sustained serious injury whilst carrying out corrective maintenance on a moving conveyor. The operator was working amongst a cluster of five tail drums attempting to correct “belt tracking” and remove a stone which had become embedded in the belt of one of the conveyors. The operator’s right arm was dragged between the return belt and tail drum after the operator’s right hand was “nipped” by the moving belt. The operator was wearing gloves at the time of the accident and managed to free the arm. However, the operator sustained multiple bone fractures, tissue damage and friction burns to the arm.

Contributing Factors

An investigation into the accidents revealed that:

- The level of induction, training, instruction and supervision was inadequate.
- The operators’ actions demonstrated that working under and around moving conveyors was accepted methodology for cleaning and/or maintenance due to the structural design of the conveyors.
- One of the workers was unable to reach the nearest emergency stop switch which led to a prolonged period of entrapment.
- One of the workers was unable to get help due to the remoteness of the workplace.
- The guarding and or electrical controls that had been installed on the conveyor systems did not comply with the relevant Australian Standard.

Recommendations

- Safety management systems should be revisited to ensure that safety policy and/or operating procedures are satisfactory for conveyors and associated plant/machinery.
- The level of induction, training and supervision should be commensurate with the hazard level of the work and the experience of the worker.
- Conveyors systems and associated plant/machinery should be shut down, electrically isolated and tagged out before personnel carry out any maintenance or cleaning duties.
- Where personnel are required to carry out maintenance or cleaning duties in or around moving conveyor systems and associated plant/machinery, appropriate equipment and or levels of support should be available.
- An assessment should be carried out to determine which method of manual emergency stop control system (safety lanyard/pull wire or knock-off, automatic lock-off, manual reset type switch) is most appropriate for electrically powered conveyors.
- A suitable system of communication should be established for personnel working at remote or isolated workplaces.
- All conveyor machinery should at least comply with the requirements of the Australian Standard *AS 1755 – Conveyors – Design, Construction, Installation, and Operation – Safety Requirements*.

If you would like further information contact Workplace Standards Tasmania on:
Telephone: **1300 366 322** (inside Tasmania) or (03) 6233 7657 (outside Tasmania),
Fax: (03) 6233 8338 Email: wstinfo@dier.tas.gov.au Internet: www.wsa.tas.gov.au



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Robert Kent
Acting Chief Inspector
Workplace Standards Tasmania
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