



Mines Safety Bulletin No. 96

Date: 30 November 2012 (re-issued)

Subject: Conveyor guarding

Summary of hazard

This safety bulletin replaces Mines Safety Bulletin No. 96 dated 12 December 2011, which was prompted by inspectorate concern at the increasing number of serious incidents involving conveyors where guarding was inadequate or absent. The bulletin has been revised and re-issued because of ongoing concern that insufficient attention is being paid to this hazard, resulting in further injuries.

The following serious incidents have occurred on Western Australian mine sites in the last three months.

- An employee was spraying a conveyor belt with belt grip when his arm was pulled into a conveyor system.
- An employee was cleaning a conveyor roller when his hand slipped between a roller and the slat conveyor, resulting in his arm being pulled into the conveyor.
- An employee's finger was crushed when his glove caught between a bracket and a roller on a conveyor.

These incidents did not result in a fatality. However, in a recent incident in Queensland, an employee was fatally injured when he was dragged into a conveyor where guards were not fitted adjacent to the gravity take-up rollers and grease points.

This revised safety alert includes additional recommendations for industry to reduce exposure to this significant hazard.

Contributory factors

- Personnel working around conveyors are not always sufficiently aware of the hazards associated with conveyor systems.
- Conveyor "nip" points are not always sufficiently guarded to prevent inadvertent contact with moving parts.
- A lack of safe work procedures for tasks that involve working close to unguarded moving parts.
- Maintenance work being undertaken on or close to dangerous moving parts without isolating the equipment.

Action required

Provision and maintenance of a safe working environment

Employers have a duty of care not to expose employees to hazards — this is an ongoing obligation. Employers have a duty to provide and maintain a safe working environment in relation to plant. For this to be done effectively, the principal employer and every other employer at a mine must ensure that, in respect to any plant in the mine, a system is implemented to:

- identify any hazards associated with the plant
- assess the risks of an employee being exposed to those hazards
- ensure all practical measures are taken to reduce those risks to an acceptable level.

One of the measures that could be used to confirm that the obligation to maintain a safe working environment around conveyors is being met would be for a competent person to:

- audit the site's conveyor systems to ensure that all practical measures have been taken to prevent inadvertent contact with "nip" points and moving parts where there is a risk of entrapment or entanglement
- where inadvertent contact is possible, undertake a risk assessment to identify priorities for installing, modifying or replacing guarding
- based on the risk assessment, develop and implement an action plan, with due dates and responsibilities, for the installation, modification or replacement of guarding.

Note: Some sites are using Australian Standard AS 1755:2000 Conveyors – Safety requirement as a guide to practical measures to reduce risks associated with conveyor systems. An employer's duty of care obligations under the Mines Safety and Inspection Act 1994 and Mines Safety and Inspection Regulations 1995 are paramount and, in some circumstances, compliance with the standard may not be sufficient.

Systems of work

Section 9(2)(b) of the *Mines Safety and Inspection Act 1994* requires employers to provide the necessary information, instruction, training and supervision for employees to work so that they are not exposed to hazards. Personnel who may be exposed to the hazards associated with conveyor systems include operators, maintenance personnel, supervisors and other personnel working near or moving past conveyors.

To confirm the adequacy of the systems of work provided, it is recommended that a competent person:

- reviews the site's safety and health management systems to identify deficiencies in
 - the application of isolation procedures
 - the applicability of the training provided
 - the assessment of competency
 - the adequacy of supervision
- develops and implements an action plan, with due dates and responsibilities, to address the deficiencies, which should be prioritised based on risk.



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