Worker falls from conveyor gantry

This safety alert provides safety advice for the NSW mining industry.

Issue

The hazard of working at heights and the appropriate use of working at heights equipment was highlighted when a quarry worker fell more than 7 m during the construction of a guardrail on a conveyor gantry. The worker involved was not wearing working at heights equipment at the time of the incident.

Circumstances

At 3.15pm on Tuesday 25 September 2018 two quarry workers were completing the construction of an access platform and guardrails onto a sand conveyor gantry.

The workers were on a platform at the end of the conveyor gantry. One worker had just tack welded the final two horizontal bars of galvanised steel guard rail. As they repositioned themselves on the walkway, the second worker put his hand out onto the top guard rail which had just been tacked into position. The weld holding the top guard rail failed. The second worker fell from the conveyor gantry taking both the top and mid guard rails with him. The worker fell 7.3 metres and landed horizontally face down into a 200 mm deep sand pile adjacent to an elevated work platform (EWP) basket.

The second worker suffered a cut nose but was conscious, winded and in shock. The worker was admitted to hospital overnight and was released the next day.

Photograph 1: View of the conveyor gantry and fall location. Photograph by Resources Regulator.
Investigation

A Resources Regulator inspector attended the incident and the mine operator also undertook an investigation.

The regulator’s incident investigation determined that:

→ the rules for introduction of plant were not followed as set out in:
  o the mechanical engineering control plan
  o introduction to site of plant
  o new plant and equipment process and product procedures
→ there was no evidence of engineering design documentation or a design risk assessment for the construction of the sand stacker
→ the site’s rules for hot work state that all hot work activities shall only be performed by personnel with suitable qualifications or competencies. There was no evidence that the workers carrying out the welding activities were suitably qualified or competent.
→ the site’s rules for working at heights state that all fall hazards will be identified through risk assessment in consultation with health and safety representatives or employees and controls put in place. There was no evidence of a risk assessment or suitable controls being in place.

Recommendations

Mine operators must:

→ monitor work to verify risk controls identified in their mechanical engineering control plan are implemented and effective
→ ensure the competency of workers undertaking welding activities
→ develop and implement effective controls to manage the risks associated with working at heights.

Mine operators should refer to the following provisions of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014:

→ clause 26 (4) Mechanical Engineering Control Plan
→ clause 103 Duty to inform workers about safety management system
→ clause 104 Duty to provide information, training and instruction
→ Schedule 2 (2) Mechanical Engineering Control Plan.

Mine operators should refer to the following provisions of the Work Health and Safety Regulation 2017:

→ clause 78 Management of risk of fall
→ clause 79 Specific requirements to minimise risk of fall

Codes of practice:

→ Resources Regulator Code of practice: Mechanical engineering control plan
→ Safe Work Australia Code of practice: Managing the risk of falls at workplaces
NOTE: Please ensure all relevant people in your organisation receive a copy of this safety alert, and are informed of its content and recommendations. This safety alert should be processed in a systematic manner through the mine’s information and communication process. It should also be placed on the mine’s notice board.

Go to resourcesandenergy.nsw.gov.au/safety to:

- find more safety alerts and bulletins
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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (April 2018). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Planning and Environment or the user’s independent advisor.

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