

INVESTIGATION INFORMATION RELEASE

DATE: 26 MARCH 2021

Worker injured by failed components during mobile jaw crusher maintenance

Incident date: 26 February 2021

Event: Worker injured by failed components

Location: Buckaroo Mine, Mudgee NSW

Overview

A worker, standing underneath a hopper of a mobile jaw crusher, was struck on the ear by failed components whilst using a chain assembly. The chain assembly had been connected between the excavator and components of the hydraulic ram on the wing of a mobile jaw crusher. The hydraulic ram holding the crusher wing was jammed. During the task, the excavator was used to apply a sideways pull force to components of the hydraulic ram.

An uncontrolled release of energy occurred causing the chain assembly and components of the hydraulic ram to fail and a worker to sustain a serious laceration to an ear.

The mine

Buckaroo Mine is located about 12 kilometres north east of Mudgee in NSW. The mine is owned and operated by Mudgee Dolomite and Lime Pty Limited which produces various products for the agricultural, civil and mining sectors.

The mining technique at Buckaroo Mine uses drill and blast, truck and excavator methods.

The incident

At about 8:30am on 26 February 2021, workers at the quarry were attempting to free a jammed hydraulic ram to lower the wing on a mobile jaw crusher.

The workers connected an 8-millimetre alloy sling grade T80 chain assembly (WLL rated at 3.5 tonne in straight lift) between the excavator and components of the hydraulic ram on the crusher wing. During the task, the excavator was used to apply a sideways pull force to components of the hydraulic ram.

An uncontrolled release of energy occurred causing the chain assembly and components of the hydraulic ram to fail and a worker to sustain a serious injury.

At the time of the incident, the injured worker is reported to have been located underneath the hopper operating the hydraulic controls of the mobile crusher. The worker was transported to the Mudgee Hospital for treatment.

Figure 1: Arrow pointing to the hydraulic ram that normally raises and lowers the wing of the crusher.



Figure 2: Failed chain components of the chain assembly used



The investigation

The NSW Resources Regulator has commenced an investigation to determine the cause and circumstances of the incident. The investigation is also examining alleged offences against an inspector by a quarry employee and compliance with requirements for safe storage and handling of explosives.

Safety Observations

Mine operators are reminded of their duty to identify hazards and manage risks to health and safety associated with the uncontrolled release of energy and lifting components.

Risk assessment processes that consider and apply risk controls in accordance with the hierarchy of controls must be undertaken, in consultation with all workers, prior to commencing unusual or infrequent work tasks.

When planning tasks involving lifting equipment, the WLL rating of the chain assembly and maximum pull/lift force (including potential for shock loading forces) that could be applied to the chain assembly, including selection of connection points, must be considered in a pull/lift system design.

Mine operators and workers must ensure safe standing zones are identified and established to account for potential component failure in the work system.

Further information

Please refer to the following guidance materials:

- [IIR20-09 Worker injured while conducting repairs to mobile jaw crusher](#)
- [IIR19-03 Worker injured releasing jammed conveyor chain](#)
- [Investigation report - Serious injury at Springvale Colliery 5 February 2019](#)
- [Lateral load shifting video](#)
- [Safety Alert SA18-05 Offsiders nose and cheek broken in incident](#)

About this information release

The Regulator has issued this information to draw attention to the occurrence of a serious incident in the mining industry. Further information may be published as it becomes available.

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- learn more about our work on causal investigations and emergency response
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