

Serious injury

Incident date: 4 July 2018

Event: Serious injuries at an underground coal mine

Location: Clarence Colliery, Clarence NSW

Overview

Falling coal rib struck two workers in the underground workings of the mine when the strata failed on 4 July 2018. One of the workers suffered serious injuries. The NSW Resources Regulator has commenced an investigation to determine the cause and circumstances of the incident.

Photo 1: Failure of right rib in underground heading. Picture by Resources Regulator investigators.



The mine

Clarence Coal Pty Limited is the mine operator of Clarence Colliery, an operation of Centennial Coal. The mine is on Clarence Colliery Road, Clarence, in the Western Coalfields about 10 km east of Lithgow, NSW. Clarence Colliery is an underground coal mine with a coal handling and preparation plant and water treatment plant. The mine produces up to 3 million tonnes annually of thermal coal using continuous miner and partial pillar extraction. The coal is transported by rail to port for the export market and trucked by road for domestic consumers.

The incident

At 9.10 am on Wednesday 4 July 2018, a section of the right rib of the heading failed (rib spall) in 808 North Panel and struck two mine workers, a father and son.

The continuous miner driver, the father, aged 55, suffered two fractures to his left femur (upper leg). He also suffered abrasions and soft tissue injuries to his right ankle and right arm. The cable hand, the son, aged 26, was struck by the falling coal and sustained abrasion and soft tissues injuries to his upper back and a suspected neck injury.

The injured workers were transported by helicopter to Westmead and Liverpool hospitals.

The cable hand underwent a medical examination and was treated for a minor head injury. He was cleared of serious injury and released from Liverpool Hospital that evening. He has since returned to work.

The driver underwent further examinations and surgery for multiple fractures to his femur in Westmead. He was later transferred to Katoomba Hospital and discharged on Friday 13 July 2018.

The 808 North Panel is a development panel on first workings. At the time of the rib spall, the underground heading was at the end of the development sequence with the continuous miner to be trammed back to do the breakaway and mine the cut-through to form the coal pillars. The piece of rib coal that struck the driver weighed about 500 kilograms.

The investigation

Resources Regulator inspectors and investigators responded and began an investigation to determine the cause and circumstances of the incident.

The mine operator is cooperating with the investigation.

An investigation report will be prepared for the Secretary of the Department of Planning and Environment.

Safety observations

Mine operators of an underground mine are reminded of their duty to identify hazards and manage risks to health and safety associated with ground and strata support in accordance with the provisions of the *Work Health and Safety Act 2011* and *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and Regulations.

Mine operators must have effective safety management systems in place and identify risks associated with ground or strata failure. Under provisions of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*, the operator of a mine must prepare a principal hazard management plan for ground or strata failure and develop control measures to control the risks of ground or strata failure.

A risk-based approach for rib hazard identification and assessment is crucial.

Rib conditions must be assessed in three phases during the life of mine workings as follows:

- as early as possible during the cutting of the development faces
- continue through the formation of the pillars and while the pillars stand because there is often time-dependent movement
- during and after secondary extraction as stress abutments develop in pillar extraction.

Competent geotechnical personnel should carry out assessment of rib stability should be carried out, which should consist of, at least, detailed rib mapping throughout the life of the workings and installation of pillar rib instrumentation such as extensometers and instrumented rib bolts.

Further information

Please refer to the following guidance materials:

- [SB18-12 Rib failures in underground coal mines](#)
- [Investigation report – fatal injury Chain Valley Colliery](#)
- [SA11-08 Fall of rib results in fatality.](#)

About this information release

The Resources Regulator has issued this information to draw attention to the occurrence of a serious injury in the mining industry. Investigations are ongoing and further information may be published as it becomes available.

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- learn more about major investigations
- view our publications on other major investigations
- find your local mine safety office, where you can contact our team of inspectors.

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