



Mine Name	MineID	Operator	Activity Type	Activity Date
Grosvenor Coal Mine	MI02976	Anglo Coal (Grosvenor Management) Pty Ltd	Inspection	15/04/2020

Vision: Our Industries Free of Safety and Health Incidents

Mine Record Entry

This report forms part of the Mine Record under s68 of the Coal Mining Safety and Health Act 1999. It must be placed in one or more conspicuous positions as per s69 of the Coal Mining Safety and Health Act 1999.

Note that inspection or audit activities conducted by the Mines Inspectorate are based upon sample techniques. It remains the primary responsibility of Mine Personnel to identify hazards, and risks associated with Operations and ensure those risks are at an acceptable level.

Today, the 15th of April 2020, Mines Inspectors Mark Lydon and Neville Atkinson conducted an inspection of the Grosvenor Underground Mine. We were greeted by Mr Ian Bailey (Electrical Engineering Manager EEM) and escorted to the main administration.

Mr Bailey gave a brief overview of the site logistics and projects around surface infrastructure and the joint tenures with external operators for the gas wells. A review of the current surface and underground single line high voltage drawings was undertaken. A review of the high potential incidents (HPI) was conducted the main focal points being cable management, mechanical insult and failure of explosion protected equipment. The quality of inspections for electrical equipment in hazardous areas was discussed, both Inspectors raising concerns with the increased frequency in industry of high potential incidents being reported for failure in service of explosion protected equipment. Mr Bailey presented the findings from an incident titled "Crack in a Shearer door" report date 1st of January 2020. The report was comprehensive with actions being developed in conjunction with the OEM. The question was raised if the OEM had distributed information to industry. A copy of the report was requested by Inspectors Lydon and Atkinson.

A review of the last MRE indicated the recommendation had been actioned and completed. Mr Bailey made comment that an interlock upgrade program (Fortress System) was being undertaken on selected conveyor drive starters as the ability to open isolators under load had been identified.

Inspectors Lydon and Atkinson indicated the emphasis and concern the inspectorate has of the increased frequency of incidents involving electric shocks. Discussion around the serious injury from an electric shock at an underground mine in 2018 was conducted. A copy of the NSW weekly incident summary for April was submitted to the mine with reference to an electric shock of a boilermaker.

Inspector Lydon questioned if the four hundred (400) metre gas monitoring sensor was installed and configured to (243A) CMHSR 2017 and this was confirmed. Mr Bailey made reference to the mines permit system to relocate gas monitoring systems.

Development

An inspection of the development panel 106 was conducted. Inspectors Lydon and Atkinson were introduced to ERZ Controller Mr Brendon Eckman who gave a brief overview of the current mining sequence. It was noted that the majority of the workforce are labour hire. Mr Bailey explained that electricians are issued with arc rated clothing and that there is an expectation that this is kept within their control and that it is worn when gaining access into electrical enclosures where that

hazard may be present. An electrical worker was challenged with regards to this process and it was apparent that the arc rated clothing was not readily available.

The installation and housekeeping around development substation TXK04 was to a good standard. Signage and cable identification legible for the equipment in use. Mr Bailey gave an overview of the OEM (Becker) explosion proof transformer. It was noted that an equipment date of May 2014 was displayed and no other labels were present for overhaul. Both inspectors questioned the overhaul lifecycle of the asset with reference to ASNZS 2290.1:2013 and Mr Bailey gave indication he would confirm and give response. Distribution Control Box (DCB) had good housekeeping and the signage was clear and legible with no foreign materials stored on the top. A review of cable management, machine housekeeping and work ethics revealed good panel standards. The conveyor boot end was relatively clean with guarding present.

It was noted that all service ranges, raw water, air and waste water lacked signage to display the service on each individual range as well as isolation points. Mr Eckman agreed that he would ascertain what the site identification requirements are for these installations.

Longwall

Inspectors Lydon and Atkinson then proceeded to the Longwall 104. The extraction unit had only just commenced operational retreat and was experiencing difficulties with strata management. The 3.3kV DCB area was observed to be fit for service with no foreign material stored on the top. An overview of the control system/s was discussed with Mr Bailey with regard to the electrical protection trips being experienced due to the current strata conditions and excessive stone product being loaded onto the armoured face conveyor AFC. The BSL area was satisfactorily maintained. The maingate area was reasonably clean and the face DCB clear of material. The boot end was well aligned with tracking switches in operation. The supply transformer and associated hydraulic pump station was installed to a good standard.

Outbye

An inspection of the seven cut through (7c/t) pit bottom substation SBL01 was undertaken. The installation was clean and well illuminated. Arc fault energy levels were displayed and the use of remote switching had been instigated. Indication that the statutory electrical protection testing had been undertaken was displayed, High voltage single line diagrams were compliant for current posted date. Mr Bailey demonstrated areas where the interlock upgrade program (Fortress System) had been completed.

Surface Fixed Plant

An inspection of the surface 66/11kv switchyard and substation was undertaken. Mr Bailey gave an overview of the infrastructure and how it interacts with the joint tenure for energy export. The switch yard was clean and free of vegetation. Switchroom G1-SS-001 was well maintained. High voltage testing was scheduled for June. Inspectors Lydon and Atkinson questioned how the mine achieved segregation of the underground mine earth. An inspection of the underground boreholes (BX001-002-003) revealed the remote neutral link incorporated with the underground mine earth for the purpose of circuit separation. It was noted that the connection point for the remote neutral link was readily accessible within the yard and a recommendation was made to Mr Bailey to look at physically restricting access.

Close Out

Inspectors Lydon and Atkinson held a close-out meeting with Mr Bailey discussing the observations from the inspection/s above. Mr Bailey reiterated the transformer TXK04 did not display overhaul labels due to the asset being operated under subsequent pre-overhaul inspections.

<u>Number</u>	<u>Recommendation</u>	<u>Due Date</u>
1	Mine Earth Segregation	N/A

The mine should physically restrict access to the underground mine earth neutral connection point

Mark Lydon
Inspector of Mines

Neville Atkinson
Inspector of Mines