CONFIDENTIAL

## Newton, Bayda

From:	Wynn, Damien
Sent:	Thursday, 12 December 2019 10:51 AM
То:	Newton, Bayda
Subject:	FW: S121 (2) CMSHA
Attachments:	MRE s121 Grasstree Single Entry 191129.pdf
For the notice board	
Damien Wynn GM / SSE – Grasstree Mine – PRIVILEGED & CONFIDENTI	
From: Stephen Woods	nfidential
Sent: Sunday, 8 Decemb	
To: Wynn, Damien <sup>Confider</sup>	ial
Cc: Rae Chafer Confidential	Stephen Watts <sup>Confidential</sup> ; Jason Hill
Confidential	
Subject: S121 (2) CMSH/	

This message originated outside Anglo American

Damien please find attached a section 121 (1) on proposed single entry drivage. As stated in the S121 the reasons I have reached a belief and are not satisfied that the safety and health management system is inadequate or ineffective. There are clear differences of opinion regarding parts of the legislation that deal with this issue. I do request several documents including an investigation that UMM Schieflebein has indicated he would send through after completion but to date have not been received and a written response. I apologise it has taken some time to respond to UMM Schieflebein's response on your behalf but have been dealing with a number of other issues which has had to take precedence.

#### Yours in safety



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Construction, Forestry, Mining & Energy Union Mining and Energy Division Queensland District Branch ABN 73 089 711 903 Brisbane

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8 December 2019

# INDUSTRY SAFETY AND HEALTH REPRESENTATIVE DISTRICT UNION INSPECTOR

# Notification s121 (1)

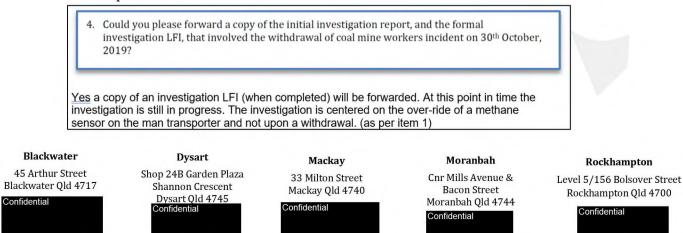
NAME OF MINE:	Grasstree
ADDRESS:	Moranbah
SENIOR SITE EXECUTIVE:	Middlemount QLD 4746
CONTACT DETAILS:	Confidential

# Under s68 of the Act this entry forms part of the mine record.

## Damien,

Thankyou for providing a response from Kelvin Schiefelbein on your behalf on the 22<sup>nd</sup> November, 2019. After reviewing all information provided arising from the inspection on the 1<sup>st</sup> November, 2019, I believe that your safety and health management system is inadequate or ineffective for the following reasons:

1. Failure to investigate loss of shaft 7 fans that resulted in the withdrawal of CMW's. You responded:

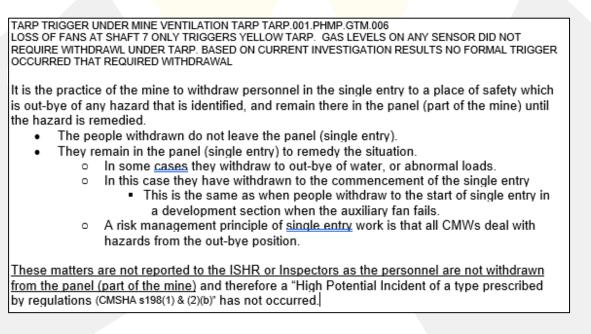


As per yellow TARP shown below, an investigation should have been initiated. You cannot prevent reoccurrence without investigating and controlling unwanted events.

Shift Supervisor /MSO	<ul> <li>For start-up of any main fans refer to SWP.GTM.252 Restarting of Surface Ventilation Fans</li> <li>Communicate with relevant ERZ Controllers to restore ventilation</li> <li>Initiate investigation</li> <li>Record on shift report</li> <li>Notify oncoming shift</li> <li>Notify Underground Mine Manager / Ventilation Officer if there is insufficient ventilation to continue operations</li> </ul>
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Failure to report a HPI to ISHR's or inspector's as per notification provisions under s198(1) & (2)(b) of the CMSHA for the incident on 30<sup>th</sup> October, 2019, involving the loss of shaft 7 fan and subsequent withdrawal of coalmine workers from the 909MG single entry.

You provided the following response in relation to this matter on the 1/11/19:



I consider a withdrawal out of a part of the mine (the single entry) was required during this event and notification is required due to:

• The yellow level 2 under the Ventilation TARP (shown below) was triggered for "Loss of Shaft 7 fan" and required the action of CMW's "Total loss of district ventilation...withdraw to a place of safety" In this case, a place of safety would be considered completely out of MG909 single entry and to the Mains where there is known fresh air;

Level	Yellow – Level 2
Conditions	<ul> <li>Loss of district ventilation</li> <li>Loss of Shaft 7 Fan(s)</li> <li>Auxiliary ventilation failure</li> <li>Loss of more than one Main fan on either shaft #2, #4 or #8 combined.</li> <li>Loss of one or more LW TG Borehole fans</li> <li>Ventilation quantity is not, within acceptable limits, minimising the layering &amp; accumulation of noxious and flammable gases.</li> <li>Fan collar pressure low or high alarm due to partial fan failure, or some interference in the underground ventilation system</li> </ul>
Coal mine workers	<ul> <li>Persons in the district affected are to:</li> <li>Report any unusual conditions to an ERZ Controller</li> <li>Take action to restore ventilation</li> <li>Conduct remedial work to restore ventilation under the supervision of an ERZ Controller</li> <li>Total loss of district ventilation and/or auxiliary fan withdraw to a place of safety</li> </ul>

- Remaining in MG909 during fan failure would expose CMW's to variable ventilation and unknown gas levels. Immediately prior to loss of shaft 7 fans the GB methane at the bottom of shaft 7 was above 1.25%. The exact amount of gas at the bottom of shaft 7, that would soon report over the CMW's due to ventilation reversal, could not have been known by the CMW's in the single entry. I am led to believe that CMW's during this incident felt they were in danger during the withdrawal. From reports they were ready to don their rescuer. I also believe that the man transporter's methanometer was placed in bypass to assist withdrawal. This action also highlights that the CMW's must have felt they were in danger;
- Whether the CMW's withdrew from the single entry due to TARP, official instruction, or under s274, the fact is they withdrew from the single entry. It is also worth noting that the NERZ/ERZ boundary is at 1-2ct 909MG;
- As you conceded in your response "in this case they have withdrawn to the commencement of the single entry";
- Schedule 1C Types of HPI's for section 198(2)(b) prescribes a reportable HPI for "5 an unplanned event causing the withdrawal of a person from the mine or part of the mine".
- 3. The safety and health management system does not adequately provide for the safety and health of coal mine workers in the single entry. For the following reasons:
  - During an event where the following conditions exist:
    - 1. Loss of shaft 7 fan; and
    - 2. Single entry GB methane above 1.25%.

The potential impact on safety and health of persons in the single entry from loss of shaft 7 fans is acknowledged in the document Single-Entry Drive Created by Longwall Retreat MP.GTM.007:

# 5.5.7 Shaft 7 Fan Operation

Operation of Shaft 7 fans shall be conducted as per the Mine Ventilation PHMP and the RA.GTM.296 Shaft 7 Ventilation System Operation and Maintenance.

Although there is capability of changing ventilation direction by operating or shutting down Shaft 7 fans, this is considered a major ventilation change which could impact the safety and health of persons in the single-entry and must be conducted under Underground Mine Manager and Ventilation Officer direction, in accordance with the Mine Ventilation Management Plan (PHMP.GTM.006). If the changing of ventilation direction is for emergency purposes the change must also be conducted in accordance with the role and responsibilities outlined in the Emergency Management Plan (ICT direction).

In the conditions mentioned above, I don't believe the SHMS provides adequate controls for the following:

- CMW's exposed to unknown ventilation and gas levels due to loss of shaft 7 fans resulting in temporary loss and subsequent reversal of ventilation in single entry bleeder and MG909;
- The egress is not trafficable by mechanised equipment due to methane levels above 1.25% after loss of shaft 7 fans. This is required by section 298 of the CMSHR 2017;
- Loss of fan event occurring during the least favourable time low barometer.
- Cache's, as opposed to COB's, are provided in the single entry that do not provide a fresh air environment to change over rescuers in an emergency. This does not reduce risk as low as reasonably achievable;
- You provided the following response regarding aided escape for shaft 7. After reviewing the current Emergency Response Principal Hazard Management Plan PHMP.GTM.011.1 that you provided, I could not find the FARP that you refer to in your response that "has been developed to describe how aided escape could occur".

7. In the event of loss of the single escapeway in the 909MG single entry, how is aided escape provided for in the SHMS via shaft 7?

As noted during discussions, this would constitute an emergency situation.

The primary means of escape is that of any single entry in the mine. (Early warning and timely response)

Emergency pods and communications have been positioned and are routinely checked. A Zero tolerance to risks which may cause a loss of access is applied, and CMW's are required

to withdraw out bye of any hazards should they arise. CMW's in the single entry are to complete familiarization before commenting work in the single

entry. Regarding shaft 7 - Under the Grasstree Emergency Management Procedure: A FARP (first

action response plan) has been developed to describe how aided escape could occur should this eventuality arise.

An exercise was conducted - a Dry Run mobilization of a crane was conducted, to ensure the potential of this alternative for aided escape was verified.

- A crane with suitable rope length to reach the bottom of the shaft
- An man riding basket
- Additional provisions are installed and routinely checked.
- The SHMS does not provide for adequate equipment available on site to provide aided escape via shaft 7 within an acceptable timeframe. As your response provided "a dry run mobilisation of a crane was conducted". In regard to aided escape from shaft 7, I have concerns with:
  - lack of equipment on site;
  - assumed availability at all times of equipment from external sources;
  - the equipment coming from several locations including other mines;
  - time taken to mobilise and get the equipment to site;
  - setup time once on site;
  - this system for escape not function tested therefore does not demonstrate the effectiveness as required by s171(2)(c) of the CMSHR;
  - $\circ$  is not a control in the SHMS as confirmed by site representatives in the meeting on 1/11/19.
- The SHMS does not consider limitations to mines rescue operations. For example, the distance that rescue may be able to cover under BA in the event of roof fall. The single entry is approximately 6km long;
- As there is not two escapeways or a refuge, I believe the 909MG single entry does not comply with s296 of the CMSHR 2017. You provided the response below on the matter.

escapew s the 909MG S	es the 909MG single entry comply with s296(2) of the CMSHR if there is not two rays or a refuge? ingle Entry is a "Single Entry" CMSHR s 296(3)(b) applies. E.g. The two escapeways (s296 (2) does not apply)
	Division 4 Escapeways and refuges
	<ul> <li>296 Escapeways         <ol> <li>The site senior executive for an underground mine must ensure the mine has at least 2 trafficable entrances (escapeways) from the surface that are separated in a way that prevents any reasonably foreseeable event happening in 1 of the escapeways affecting the ability of persons to escape through the other escapeway.</li> <li>The site senior executive must also ensure each ERZ1 at the mine where a person works has 2 escapeways leading to the surface or a refuge.</li> </ol></li></ul> <li>20. The site senior executive must also ensure each ERZ1 at the mine where a person works has 2 escapeways leading to the surface or a refuge.</li> <li>20. The student of the periamentary Counsel</li>
	Coal Mining Safety and Health Regulation 2017 Chapter 4 Underground mines [s 297] (3) Subsection (2) does not apply to an ERZ1— (a) where an inspection is being carried out under the mine's safety and health management system and no-one else is working; or (b) in a single entry drive or shaft that is being sunk.

I don't believe the single entry can be defined as a "drive" as you stated. Schedule 9 of the CMSHR defines single entry drive as - "*single entry drive* means a drive longer than 350m." The single entry starts at the entrance to 909MG and extends to the bottom of shaft 7 – a distance of approx. 6km. This single entry is presently not being driven, developed or further advanced. In my view the single entry, using terminology from legislation, should be considered as a roadway as applied in other parts of the legislation, and legislation applied accordingly. For example consider the terminology used in s344 (4) of the CMSHR that provides exemption from intake and return roadway requirements. It refers to a roadway being driven.

- (4) Subsection (1)(c)(ii) does not apply to—
  - (a) a shaft being sunk; or
  - (b) a drift or individual roadway being driven and for which it would be impracticable to provide a separate return roadway.

Example for paragraph (b)—

a single entry drive or longwall face heading

- 4. Planned development mining of 910 faceline and 910MG via 909MG single entry not at an acceptable level of risk. For the following reasons:
  - Access to the proposed development mining is from 909MG single entry. The faceline is approximately halfway in the single entry, approximately 3.5km in. I believe the single entry roadway, that runs from 909MG entrance to shaft 7, will not be driven, developed or further advanced. The faceline and 910MG is proposed to be driven "off" the single entry. Therefore the provision of two escapeways under s296(2) should apply as the exemption under s296(3)(b) for a single entry "drive" is not applicable;
  - Using the logic that allows the development of the faceline and 910MG via access from the 909MG single entry could be applied to allow the development of an entire mine from a single entry access. The intent of the legislation is not to allow this. The intent of s296 is to provide two means of egress from the mine, or part of a mine, to provide an acceptable level of risk to coal mine workers to self-escape in an emergency;

I understand that some of these issues may be addressed by review of procedures triggered by recent incidents in the 909MG single entry.

Could you please also provide the following as requested in the previous communication via inquiry on the 15/11/19. These have not yet been received:

- Initial investigation report AND formal investigation LFI for the methanometer bypassed by CMW's during withdrawal from the 909MG single entry on 30/10/19;
- Level 2 exercise report conducted in 2018.

Could you please provide a response within 7 days by the C.O.B on the 18th December, 2019.

Please contact myself on the details provided below if you have any further queries. I appreciate your assistance in this matter and look forward to your response.

Regards

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Industry Safety and Health Representative District Union Inspector C.F.M.E.U Mining and Energy Division Queensland District Branch

