QUEENSLAND COAL MINING BOARD OF INQUIRY

AFFIDAVIT OF STEPHEN WOODS

I, **Stephen Woods,** [redacted] in the State of Queensland, Industry Safety and Health Representative, solemnly and sincerely affirm and declare:

Employment

1. I am an Industry Safety and Health Representative (**ISHR**) elected in accordance with the provisions of the *Coal Mining Safety and Health Act* 1999 (Qld) (the **CMSH Act**).

2. I was first elected to this position in or about July 2012. I was re-elected into this position in or about July 2016 and again in July 2020.

3. I am based in the Mackay office of the Queensland District Branch of the Mining and Energy Division of the Construction, Forestry, Maritime, Mining and Energy Union (the **Union**).

4. My employment history prior to being elected as an ISHR includes:

   (a) Between 15 January 1988 and June 1992, I worked as an apprentice fitter and machinist at the Cook Colliery in Queensland. I completed my apprenticeship after four (4) years and then worked as a tradesman for a further six (6) months before being made redundant. I worked in underground coal operations as part of that position;

   (b) Between July 1992 and March 1993, I worked at the Mount Isa Mines as a fitter and turner. I worked in the Schmieder Steel Workshop when I first started working in this role and was then tasked to work on the mine. I mainly worked in the lead and copper smelter and did not work in underground operations as part of that position;

Signed: [redacted]

AFFIDAVIT

Taken by: [redacted]

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(c) Between 15 March 1993 and July 2012, I worked at the North Goonyella coal mine as a fitter and turner. In or about 2005 I started working as an ERZ controller, which has the same duties as a Deputy. That position is a third-class manager. I worked in underground coal operations as part of that position. I was also the President of the North Goonyella Lodge of the Union for around two (2) or three (3) years and the Vice President for around five (5) years and worked as a site safety and health representative (**SSHR**) for around two (2) years.

5. I was also an active member of Mines Rescue for around seven (7) years.

Training

6. I have a range of qualifications related to black coal mining that assist me to perform the role of ISHR. Those qualifications include:

   (a) Deputy certificate;

   (b) S1, S2 and S3, which are modules that cover:

      (i) communication and conduct during health and safety investigations;

      (ii) conducting higher team operations;

      (iii) risk management;

   (c) RIIRIS601D, which is an advanced diploma in establishing and maintaining a risk management system;

   (d) on-the-job training when I started working as an ISHR, including escorting experienced ISHRs on to mine sites;

   (e) ongoing safety professional development sessions that are facilitated by the Union for SSHRs; and

   (f) 24 years of experiencing the mining sector, with most of that experience related to underground coal operations.

ISHRs

7. There are three (3) elected ISHRs in Queensland. Currently the other two (2) ISHRs are Jason Hill and Stephen Watts and they are based at the Rockhampton office of the Union.

8. Generally, the division of work between ISHRs depends on where the relevant mine is located, and the proximity of the ISHR from the mine. If an ISHR is about to go on

Signed: [redacted] Taken by: [redacted]

leave, or is on leave, we may be required to look after a particular coal mine on investigation in a fellow ISHR's absence.

9. Because I am based in Mackay, I generally oversee mines that are in Moranbah, Collinsville, Glendon, and anywhere in between.

10. As Jason Hill and Stephen Watts are both based in the Rockhampton they generally look after coal mines around that area, including in Blackwater, Emerald, Tieri and Middlemount.

11. Until December 2019 there was a mine in Ipswich, which all three of us used to take turns in visiting. All three (3) of us also look after three (3) coal mines that are located in the vicinity of Dalby.

12. If there is a reportable event that results in a serious injury or death, all three (3) of us will attend the coal mine.

13. All three (3) ISHRs are on call all of the time. If a reportable event happens at a coal mine that we oversee, regardless of whether it is during business hours or not, we are expected to take the notification.

Interactions with SSHRs

14. The SSHRs compliment the role of ISHRs in that they are our ears and eyes at the coal mine. The ISHRs rely heavily on maintaining a collaborative relationship with SSHRs so that there can be an ongoing dialogue regarding safety at individual mines and so that steps are taken to minimise the risks presented to coal mine workers. The ISHRs frequently communicate with the SSHRs about issues arising at individual mines and, when requested, provide advice to SSHRs to assist them with fulfilling their functions.

15. From my perspective, it is problematic having a SSHR who is a labour hire employee because the turnover of labour hire employees results in turnover of SSHRs which means they lack experience in the role at the mine in question and can make it difficult to keep up with the person who holds office. Further, I am of the view that a SSHR should have security of employment so that they cannot easily be moved on for raising concerns about safety.

Signed: [redacted] Taken by: [redacted]

16. I am frequently receiving phone calls from SSHRs, however they are usually SSHRs who are permanent full-time employees and are union members. When I receive a call from a SSHR it is usually because they require advice about how to resolve a situation that they are dealing with.

17. In my experience, the SSHRs are able to resolve most safety matters on their own and at the local level. They only ever call an ISHR if they are concerned that an incident has not been correctly classified as an HPI, or if they need advice about how to resolve a matter.

18. If the matter needs to be escalated and the SSHR is not able to resolve it I will either write to the SSE or I will attend the mine to do an inspection or to meet with the SSHR and mine management.

Relationship with SSHRs at the Grosvenor Mine

19. I have been unable to develop a relationship with the SSHRs from the Grosvenor mine. I briefly met Reece Campbell, one of the SSHRs from the mine, after the explosion occurred on 6 May 2020. However, that was the first time that I had spoken to him. The reason that I hadn't really developed a relationship with the SSHRs at Grosvenor was that I did not have contacts for them and they didn't seem interested in engaging with me.

20. Most of the workforce at the Grosvenor mine is employed on a labour hire basis with One Key and most of them are not members of the Union. When I approach them, they are very reluctant to engage with me. As a result, I have not had a reliable point of contact inside the mine's workforce and have been unable to receive information about safety and working practices from anyone.

21. I have also noticed that the SSHRs are frequently changing and I have been unable to keep up with the changes.

22. I personally prefer SSHRs to be union members because they are generally more effective in the role. In my experience union members are more likely to attend all of the training that the union provides and I get the chance to build a relationship with them outside of the workplace. If they can't attend, they contact us to tell and ask for information that they have missed out on. They just seem more engaged and more willing to talk to the Union than non-members.

Signed: [redacted] Taken by: [redacted]

23. The ISHRs have discussed the difficulties we have had regarding building a relationship with the SSHRs at the Grosvenor mine, but we have formed the view that they will all be too scared to talk to us as long as they are all labour hire because they are worried about losing their jobs. We have that view because we are constantly hearing that if you are seen to be talking to an ISHR when they are onsite, or when they notify us about safety matters, they tend to disappear. We have also had people say to us while we have meetings:

> *"If we are seen here* [meeting with an ISHR] *we are fucking gone."*

24. People that I personally know who work at the mine generally won't go near me when I attend the site. Conversely, at mines that have permanent employees as SSHRs, they are happy to come and talk to us.

Relationship with SSHRs at Moranbah North Mine

25. I have a good working relationship with both SSHRs at the Moranbah North mine. We regularly speak to each other and they often call me to seek my advice about safety matters.

26. They are both employed on a permanent full-time basis and are directly employed by Anglo-American as ERZ Controllers (Deputies). They are always happy to talk to us.

Relationship between ISHRs and Inspectorate

27. Historically there was a productive working relationship between ISHRs and the Queensland Mines Inspectorate (the **Inspectorate**). However, the relationship has deteriorated in recent times. The current state of the relationship is that the Inspectorate does not communicate with the ISHRs about ongoing investigations and the ISHRs are not always clear whether matters are being investigated.

28. Prior to recent times, the ISHRs would receive regular information from the Inspectorate, including:

    (a) investigation reports;

    (b) inspection reports;

    (c) directives issued to Site Senior Executive (**SSEs**); and

    (d) newsletters and safety bulletins.

29. Further, the Inspectorate previously helped ISHRs who were having trouble entering coal mines and obtaining information from SSEs.

Signed: [redacted] Taken by: [redacted]

30. Furthermore, previously there were quarterly meetings between the three (3) ISHRs and the inspectors. The last meetings with the Inspectorate were on 17 December 2019 (to meet the new Chief) and 19 December 2019 (a quarterly meeting). There have been no meetings since, however prior to that meeting it had been six to nine months since the last one.

31. The flow of information between the Inspectorate and the ISHRs stopped in or about early-2020. I cannot say for sure why this happened.

32. In January 2020 I commenced proceedings in the Supreme Court against the Chief of the Inspectorate in which I argued that the right of an ISHR to participate in an investigation extended to being able to participate in coercive interviews. I was unsuccessful in this matter: *Woods v Newman, Chief Inspector of Coal Mines* [2020] QSC 10.

33. Ever since the Supreme Court proceedings, the Inspectorate has completely stopped providing the ISHRs with any information related to events at coal mines. Previously the Inspectorate would send to the ISHRs a copy of any directives issued.

34. On 17 February 2020 the ISHRs received an email from an inspector, Steven Smith, which included the SSEs at all coal mines in Queensland and all of the Inspectorate's inspectors. Annexed and marked **SW-1** is a copy of that document.

35. The email stated that the electronic distribution of a Mine Record Entry by an inspector is being standardised for all coal mines and will only be delivered to the SSEs and the coal mine operators via email and, where additional distribution lists have been included in the past for a mine, they will no longer be used. The email stated that how the SSEs and coal mine operators chose to distribute a copy of the Mine Record Entries is a matter for them, and not the Inspectorate.

36. I read that the effect of this email is that the ISHRs were taken off the mailing list and would no longer receive them. I cannot say for sure why this happened, but I considered it to be based on my Supreme Court application being filed because it was around the same time.

Signed: [redacted] Taken by: [redacted]

37. Late 2019 and early 2020 was particularly busy period for the ISHRs with the Supreme Court case, the investigation into the fatality that occurred at the Carborough Downs mine, and another fatality in January 2020 (dealt with below) which created further time pressures. Further, in August 2019 an ISHR retired and we went from three (3) down to two (2) until Mr Watts was elected in January 2020. Jason Hill also took five (5) weeks of pre-planned leave during that period which left me doing the job of three (3) people on my own.

38. Further, following a death at [redacted] coal mine [redacted], I received the notification about the event and then I notified Jason Hill and Stephen Watts because they were closer to the mine and would get there faster than me. When Jason Hill and Stephen Watts attended on [redacted] they told me that the inspectors would not let them view the scene of the accident together, although they were allowed to separately attend the scene.

39. During the investigation into that fatality the Inspectorate identified that the matter had mechanical elements to consider so the investigation was transferred from Inspector [redacted] to Inspector [redacted] because he had more mechanical experience. Likewise, the other two ISHRs decided it would be best to get me involved given my background.

40. There was a storm approaching and by the time I had arrived the scene had been covered up. I went back to the mine the next day with Jason Hill and Stephen Watts, but Inspector [redacted] and Inspector [redacted] wouldn't let us go and inspect the scene. then decided that they would only let Stephen Watts in but, but not Jason Hill or me.

41. I sent email correspondence to Inspectors [redacted] and [redacted] advising them that I believed they were obstructing me. Annexed and marked **SW-2** is a copy of that document. I didn't get a reply to that correspondence. However, I was allowed to attend the scene after it was sent.

42. Eventually I was allowed to the enter the scene, on my own, to inspect it and take photographs. To my knowledge, it was the first time in eight (8) years of working as an ISHR that all three (3) ISHRs were not allowed to be at the scene of a fatality together.

Signed: [redacted] Taken by: [redacted]

43. There was another incident involving [redacted] who is also an inspector, on [redacted] when member Shaun Isaacs asked me to attend a coercive interview as a support person, as part of the investigation into the fatality at [redacted]. When I got there, Inspector [redacted] wouldn't let me in because he said that the Supreme Court decision said that I wasn't allowed to. After talking to the Inspectorate's lawyers, Inspector [redacted] gave a different reason for refusing my attendance, specifically he said that it was deemed that I had a conflict of interest and was not permitted to be there for that reason.Eventually Steve Pierce, an official from the Union, attended the interview with the member.

44. The effect of the recent breakdown in the relationship between the Inspectorate and the ISHRs is that the ISHRs are deprived of information that would enable them to effectively participate in investigations into events at coal mines.

45. Further, the only information that we receive from the Inspectorate now is newsletters and safety bulletins. We are no longer updated regarding inspections by inspectors to coal mines.

46. Given the way that the relationship has deteriorated, I have not tried to schedule any meetings or obtain information about ongoing visits that the inspectors are doing. I can usually eventually (albeit quite some time after the fact) figure out where they have been and what they have been investigating by reading the newsletters and bulletins that I receive. However, I am no longer clear on whether any directives have been issued to SSEs at coal mines.

Response to HPI notifications

47. The practice adopted by most SSEs is that they initially make the notification verbally, by calling an inspector and an ISHR, and they send the written notification, in the form of a Form 1A, by email within 48 hours of the event. Some SSEs send a text message, such as the SSE from Moranbah North, however the ISHRs have recently adopted a process of sending correspondence to an SSE who makes a notification by text message and asking that they notify us verbally. Generally, the Form 1A is emailed to the relevant inspector and ISHR at the same time, in that we are both included as recipients to the same email.

48. Some SSEs include the SSHRs in the list of persons notified, while others don't. I don't know why the practice is different between different coal mines. It may be because the CMSH Act does not require SSEs to notify SSHRs.

Signed: [redacted] Taken by: [redacted]

49. When I receive a notification, the first thing that I always ask is whether the SSHRs have been notified. Usually I get a response to the effect of:

    (a) *"Yes, they have been notified"*; or

    (b) *"No, but they are next"*.

50. Sometimes I receive verbal notifications from SSHRs before I receive them from the SSE, but that is usually only at mines that where the elected SSHRs are permanent full-time employees. I have never received a notification from a SSHR at the Grosvenor coal mine, where generally the SSHRs are not permanent full-time employees.

51. The SSHR at the Moranbah North coal mine contacted me on 1 June 2020 about a gas exceedance that had occurred on 31 May 2020. He told me that power had been turned back on without the correct checks occurring beforehand. Had the SSHR not contacted me about this, I would not have known about it and it is a clear example of how the SSHRs compliment the role of the ISHRs when there is a good working relationship. As soon as I heard about what had happened, I wrote to the SSE and made several enquiries. Annexed and marked **SW-3** is a copy of that document.

52. When I receive a telephone call from an SSE who is making a verbal notification of a reportable event, I generally make a file note during the conversation. If I am in the office, I take notes in my diary and, if I receive the telephone call outside of working hours, if I can, I make a note on a post it which I then fix to the relevant page of my diary when I return to the office.

53. If the reportable event has resulted in serious injury or death to a coal mine worker, after receiving the verbal notification I will immediately contact the other two (2) ISHRs to advise them of the incident and, generally, all three (3) of us travel to the coal mine to commence our investigation.

54. If the incident does not result in a serious injury or death, I don't generally contact the other ISHRs about it straight away and I will solely deal with and document it.

55. When I receive the Form 1A by email from the SSE, I send the form by email to an assistant so it can be filed. The ISHRs always include all three (3) ISHRs into the correspondence to the assistant so that we are all aware of the notification.

56. I make sure that each Form 1A that I receive is filed based on the year it occurred in.

Signed: [redacted] Taken by: [redacted]

57. I would estimate that on average the Union receives anywhere between six (6) and eight (8) notifications of a reportable event each day. However, as explained above, not all of them come to me.

58. The ISHRs have recently been discussing how we can better manage the receipt of notifications and ensure that we are all on the same page with respect to events at all coal mines in Queensland. We have collectively decided that we will have a quarterly meeting that is dedicated to only discussing the notifications that have been received over the previous three (3) months so that we can identify trends and work out amongst ourselves which mines we should visit to conduct inspections.

59. To enable us to make proper use of our time during those meetings, we have also been working with the Union's office manager, Amanda Ross, to create a mechanism within the Union's membership database for us to record the notifications so we can easily generate reports that provide us with statistical information about the type, quantity and location of notifications received.

Receipt of notifications while on leave

60. I received most of the notifications about serious accidents and high potential incidents at coal mines at the Grosvenor and Moranbah North coal mines during the period referred to in the terms of reference.

61. The only time I did not receive the notifications was when I was on leave. As far as I am aware, Jason Hill received notifications about serious accidents and high potential incidents at the Grosvenor and Moranbah North coal mines in my absence.

62. The periods when I was on leave during the period referred to in the terms of reference for the Board of Inquiry are as follows:

    (a) 19 July 2019 until 28 July 2019;

    (b) 21 September 2019 until 29 September 2019; and

    (c) 15 February 2020 until 23 February 2020.

Processes by ISHRs, the Inspectorate and companies reviewing notifications of serious accidents and high potential incidents at coal mines

63. I am not aware of any process that involves the ISHRs, the Inspectorate and the company reviewing notifications of serious accidents and high potential incidents at coal mines. To the best of my knowledge there is no such process.

Signed: [redacted] Taken by: [redacted]

64. I am aware that the Inspectorate collates the data related to notifications about serious accidents and high potential incidents at coal mines and prepares statistics about them. I am aware of that because they prepare a periodical each month that contains the statistics and facts about the incidents that occurred over the previous month and that is sent to all SSEs and the ISHRs. We still receive the periodicals that the Inspectorate prepares and they are effectively one of the only mechanisms that we have to know what they are investigating and when.

65. The Inspectorate usually prepares a PowerPoint presentation that relates to the most common type of reported serious accident and/or high potential incident at coal mines and they include a link to it when they send the periodical so that ISHRs and SSEs can use them when delivering presentations.

66. As far as I am aware, there have been no references to gas exceedances in any of the periodicals that the Inspectorate has sent. I expect that there will be a reference to the explosion that occurred at the Grosvenor mine in the next periodical because five (5) coal mine workers sustained serious injuries. However, when no injuries were sustained during a gas exceedance, it is my understanding that they were not included in the periodicals.

ISHR participation in inspections

67. The Inspectorate and the ISHRs generally only investigate fatalities and incidents that involve very serious injuries.

68. The mine management investigate less serious matters and are required to provide the Inspectorate with the outcome of the investigation within one month. If there is this kind of investigation at the local level, I usually have to follow up SSEs for them to send me a copy of the outcome. They very rarely volunteer that information to me. Further, I don't receive copies of witness statements or other evidence obtained during the investigation so I am left to rely only on what the company provides to me.

69. For more serious incidents where the ISHRs and the Inspectorate are involved, the ISHRs investigate independently from the Inspectorate, but we are limited by what we can do. We can't interview witnesses and are unable to commence our own investigation. We can only participate in the Inspectorate's investigation and are then left to draw our own conclusions based on the information that is given to us. For the reasons I have outlined above, we now get very little information from the Inspectorate about what they discover during their investigations.

Signed: [redacted] Taken by: [redacted]

70. I usually keep an eye on the Inspectorate's website and read the outcome of their investigations when they are made public. The outcomes used to be sent to me prior to the breakdown in the relationship between the ISHRs and the Inspectorate, but that has stopped.

71. Previously the ISHRs and the Inspectorate would gather evidence together and then go away and do our own inspection. More recently, the ISHRs have had trouble viewing scenes and gathering evidence because it has already been removed by the Inspectorate. The ISHRs are also excluded from interviews and are not sent a copy of the interview transcripts, so it makes it very difficult for us to do a fulsome investigation in those circumstances.

Communication between ISHRs

72. Jason Hill and I generally talk on a daily basis and will briefly discuss the notifications we have received. I speak to Stephen Watts at least once a week and we briefly discuss happenings at coal mines that we look after. The reason I have more dialogue with Jason is that he is the more experienced of the two, he and I are currently showing Stephen the ropes as he was not elected until January 2020.

73. We maintain and share between ourselves an excel spreadsheet that details the inspections that are performed by an ISHR so that we can ensure that each coal mine is regularly inspected. We also keep a log of notifications that relate to dust diseases.

74. As the ISHRs all work together on investigations into serious accidents, we keep an open dialogue about notifications that are received from coal mines. Our communication is ad hoc in nature and undertaken on an "as necessary" basis. We therefore usually don't schedule any specific or formal meetings to discuss ongoing matters or the status of investigations.

75. When we are all in the same place the ISHRs will often meet to discuss matters such as:

    (a) how to improve safety at coal mines;

    (b) what has been happening in various coal mines that we have each heard about;

    (c) safety conferences that one or more of us have attended and any take away points from them;

    (d) what the SSHRs are asking for in terms of support and information, and how we can deliver it;

Signed: [redacted] Taken by: [redacted]

(e) strategies for communicating about safety matters with coal mine workers;

(f) upcoming leave arrangements and who will look after which mine in an ISHR's absence.

Visits at coal mines

76. There have been numerous occasions where I have visited a coal mine and attempted to investigate a serious accident or high potential incident only to be obstructed by the SSE. While I have always been able to enter the mine eventually, there have been times when the SSE has tried to delay my entry or tried to stop me from being able to view documents. Sometimes the SSE has completely refused to engage with me at all and has told me to go through their lawyers, which has caused delays in investigations.

77. I regularly have to caution SSEs about the fact that hindering and obstructing me is an offence for which they can be punished.

78. While some SSEs are fine to deal with, there are others who do not like ISHRs and are obstructionist. They always know that an ISHR is attending the coal mine because we either tell them when they verbally notify us of a notifiable incident, or when we provide a written notice under the CMSH Act that states that we are exercising our power to enter the mine.

79. In my view, the SSEs think that we are not "real inspectors". They think that we are irrelevant and it is just an inconvenience when we attend their mine.

Lines of communication with mines' management

80. I have an open line of communication with some mines' managers but not others.

81. Some managers will call me and talk about HPIs or other issues related to safety and seek my advice. An example of this is the underground mine manager at Broadmeadow. When the changes were made to the CMSH Act he called me and we discussed the changes and the pros and cons of the introduction of industrial manslaughter legislation.

82. I do not have any open lines of communication with the management at the Grosvenor coal mine. I only ever hear from them when I am being notified about an HPI.

83. The level of communication between individual managers and ISHRs depends on the personal relationship between them. As we have all worked in the black coal mining

Signed: [redacted] Taken by: [redacted]

sector the ISHRs have personal relationships with some managers because we used to work with them and that helps with the communication lines.

84. The communication between me and the mines' managers is usually done by email. I personally strive to have as much recorded in writing as possible, particularly if I am making enquiries in response to complaints made by coal mine workers.

Inspections at mines

85. There are different reasons as to why I may attend a mine to conduct an inspection. As detailed below, if I receive a complaint about a matter that could cause death or serious injury, I will go to the mine as soon as possible.

86. I also try to schedule inspections on days when I have an open calendar. That usually occurs if I haven't been to a mine in a while, or if there are things written on social media that I find concerning and want to look into.

87. Other times I attend a mine to conduct an inspection because the SSHR has contacted me and asked me to come and have a look.

Complaints by coal mine workers

88. The ISHRs receive complaints from a variety of sources. They include:

    (a) SSHRs;

    (b) social media; and

    (c) coal mine workers.

89. It makes no difference what the source of the complaint is. If it sounds like a serious matter, I will always act as soon as possible. If it is less serious, I will add it to my list and follow up with the mine management as soon as I can.

90. The action taken in response to a complaint depends on the nature of the complaint. If I read something on social media that I find concerning I will usually try to go to the mine to do an inspection as soon as I am able to and I will usually issue a notice and give seven days' notice. If I receive a complaint about something that may cause death or serious injury, I will go straight to the mine and call the SSE on the way to tell them that I am coming when I am on my way.

91. With less serious complaints, I am always mindful of the fact that I have only heard one side of the story. I will usually send an email to the mine management to tell them about the complaint and to ask questions. The mine management will then investigate

Signed: [redacted] Taken by: [redacted]

and report back to me. I will then ask to view any relevant documents and follow up with any questions that I may have. I will then conduct an inspection if I believe there needs to be one and I may also act under s.121 of the CMSH Act.

92. For more serious complaints, I will usually attend the mine and conduct an inspection straight way and while I am there, I will talk to the mine management and ask to view documents.

93. I generally try to ensure that everything is done in writing through mine record entries so there is a paper trail created when I take any form of action in relation to complaints by coal mine workers.

Section 119 of the CMSH Act

Use of s.119 powers

94. I will exercise my powers under s.119 to enter a mine that I haven't been to in a while, or when I deem it necessary to investigate a complaint made by a coal mine workers. I also use my s.119 powers when asked by a SSHR to assist them.

95. Usually, I generally start my involvement in any matter by asking to view documents. I may then later attend the mine to inspect an area or speak to management or the SSHR.

Weakness of s.119

96. In my view, s.119 of the CMSH Act limits what we can do as ISHRs. We have to provide reasonable notice of our intention to attend a mine and I think that we would reveal more unsafe practices if we were able to attend unannounced because I know that some mines have a practice of cleaning things up before an ISHR gets there.

97. I have a lot of arguments about examining and copying documents and what amounts to a safety and health management system document. It would be helpful if this was more clearly defined so I could spend less time with SSEs about whether or not they have to give me something.

98. I don't consider the mere ability to participate in investigations to be sufficient. ISHRs have no power to commence an investigation and we are left only to gather what we can from the Inspectorate. We are unable to attend coercive interviews and there is no obligation for the Inspectorate to give us transcripts of interviews. We also only find out

Signed: [redacted] Taken by: [redacted]

about interviews that are occurring when a member contacts the union to tell us about it. This makes it virtually impossible to conduct a thorough investigation.

99. It would also be beneficial to the Inspectorate to be required to send us lab results of evidence that has been tested and for ISHRs to have the ability to have items independently tested. At the moment we do not get any of that and it makes it impossible to conduct a thorough investigation.

Gas exceedances

100. Gas exceedances are one of the most common type of notifiable events for which ISHRs receive a notification. A gas exceedance occurs when there is a concentration of more than 2.5% methane picked up by gas sensors that are situated throughout coal mines.

101. Gas exceedances are an inevitable part of coal mining. The risk is not able to be eliminated; it can only be managed.

102. Machines in coal mines also have gas sensors on them and machines and power are set to trip out at 2%. When a machine trips out it is not always a notifiable event because the concentration of methane doesn't exceed 2.5%. For that reason, we don't hear about all events that involve a high concentration of methane; only the ones that involve a sensor measuring more than 2.5%.

103. In my experience, SSEs don't notify inspectors or ISHRs about the gas exceedance until several hours has passed and work has already resumed. Sometimes we don't get notifications about gas exceedances until the following day.

104. I do not generally visit a coal mine that has reported a gas exceedance because, by the time I find out about it, the gas exceedance has been resolved so there is no longer an ongoing risk that is present.

105. An ISHR only has the power to suspend work in accordance with s.167 of the CMSH Act if the ISHR believes risk from coal mining operations is not at an acceptable level. The only way that we would generally be able to justify a suspension of work for a gas exceedance would be if we were already present at the mine at the time of the gas exceedance. In a practical sense that is almost impossible and to my knowledge has never occurred.

Signed: [redacted] Taken by: [redacted]

106. Gas exceedances can be resolved in a matter of minutes. Generally, the workers need to be evacuated from the area where the gas exceedance has occurred, usually to a crib room, and then they return to work once the gas has been purged and the area has been ventilated.

107. It generally takes me two (2) to three (3) hours to get to a coal mine from Mackay. If I was to travel to a coal mine to investigate a gas exceedance the issue would already be resolved once I have arrived, so there is no utility in me driving such a long way for an issue that is no longer present.

108. Further, the reasons for the gas exceedance, including the duration of the high reading, is always provided to us when we receive the verbal and written notifications. I am yet to receive a notification about a gas exceedance at a time when work had not already resumed at the mine.

109. If there has been an ignition of gas, or if a coal mine worker has been injured by gas, I will almost always go straight to the coal mine with the other ISHRs to investigate. In the absence of any injuries or significant events, I simply keep notes and make sure that I file the notifications for gas exceedances.

110. Gas exceedances are always investigated at the local level by the SSE or Undermanager and reported on at the time they occur, however the level of the investigation varies depending on the type of incident and whether any injuries were sustained.

111. Gas exceedances usually involve the creation of a hazard report by the SSE or Undermanager which explains why the gas exceedance occurred and confirms that the issue has been rectified. They then give notice to the workers about what happened. The ISHRs find out about it because it is included on the Form 1A that we receive (which I deal with below).

112. For gas exceedances the SSE also includes information about the readings on sensors, so we can see the duration of the exceedance and what the levels were.

Signed: [redacted] Taken by: [redacted]

113. Gas exceedances are unusual types of incidents in that there is always the cause, exact measurement of gas concentration, times of duration and steps taken to resolve the issue all contained in the notification that is sent by the SSE to the ISHR and inspector. Other types of incidents, such as a fire or motor vehicle accident, always require an investigation that usually involves interviewing employees to ascertain what happened. There is no readily accessible data that enables an investigation to be opened and closed quickly.

114. I am not sure what steps that the Inspectorate is currently taking with respect to managing gas exceedances in the black coal industry in Queensland due to our poor relationship as described above. I was aware that they were looking closely at it in June 2019 because I received an email that had a guideline on managing gas exceedances attached to it, but I do not know what they have been doing since. Annexed and marked **SW-4** is a copy of the guidelines that I received from the Inspectorate.

Gas exceedances at Grosvenor coal mine

115. The Grosvenor mine is operated by Anglo-American.

116. I am aware that the Inspectorate has entered the Grosvenor mine on at least two (2) occasions, on 2 July 2019 and 15 October 2019, to investigate gas exceedances. I know that because I was sent a copy of the Mine Record Entry by the Inspectorate. As the Inspectorate has stopped these reports to the ISHRs (as outlined above), I am not aware of whether they have entered the mine to conduct any other inspections into gas exceedances that have not resulted in injuries to coal mine workers.

117. The ISHRs received 31 notifications about Gas Exceedances at the Grosvenor mine between 1 July 2019 and 5 May 2020. Twenty-seven gas exceedances related to the longwall. However, there were additional notifications related to gas exceedances in development. Some of those events occurred in longwall 103 because that was in operation at the time. From March 2020 longwall 104 commenced operation and remained active until 6 May 2020.

118. I am usually the ISHR that the SSE of the Grosvenor Mine contacts to make verbal notifications about notifiable events, and I am usually the ISHR who receives the email that has the Form 1A attached. The only time that I was not the ISHR who received the notification was when I was on leave; Jason Hill was the ISHR who received the notifications in my absence.

Signed: [redacted] Taken by: [redacted]

119. Each time I have received a Form 1A regarding a gas exceedance at the Grosvenor mine the SSE has included a graph which includes the data from the sensors so we can see the reading. The Form 1As that are sent to us by the Grosvenor mine also provide more detail than that provided by other mines, and they include the exact reading and duration of the gas exceedance. That additional information generally led me to conclude that is was unnecessary for me to attend the mine to investigate a gas exceedance, particularly because workers were generally not injured as a result (save for the event on 6 May 2020 which I deal with below).

Longwall 103 in operation

30 June 2019

120. There was an incident involving a gas exceedance at 12.20pm on 30 June 2019. The Inspectorate was verbally notified at 12.20pm on 30 June 2019 and I was notified at 1.35pm. The written notification was received at 4.45pm on 1 July 2020.

121. The incident occurred when the shearer was cutting from maingate to tailgate on longwall 103. At 11.50am the shearer was stopped at shield 115 by the tailgate CH4 control system. At 12.20pm the outbye sensor exceeded 2.5% and peaked at 2.7% at 12.30pm. The increased gas levels were attributed to a cavity at shields 3-9 and were double chocked from shields 6-9 and rill which created a slight blockage on the face and a partial ventilation obstruction pushing air over the top of the maingate shield.

122. I did not attend the mine because the reasons for the gas exceedance were clearly stated in the notification and I knew that work has recommenced. I believed that there was no longer an unacceptable risk to coal mine workers.

2 July 2019

123. There was an incident involving a gas exceedance at 2.30pm on 2 July 2019.The Inspectorate was verbally notified at 2.35pm on 2 July 2019 and I was verbally notified at 5.09pm. The written notification was received at 5.24pm on 3 July 2019.

124. The incident occurred on longwall 103 when the shearer was cutting from the maingate to the tailgate at 2.26pm when the shearer stopped at shield 140 when the inbye tailgate sensor detected a reading of 2.34%. Prior to the event the shearer was paused at shield 115 by the CH4 control system for a period of two (2) hours and 12 minutes. At 2.36pm the outbye sensor peaked at 2.52%.

Signed: [redacted] Taken by: [redacted]

125. I did not attend the mine because work had already recommenced and I believed that there was no longer an unacceptable risk to coal mine workers. I was also on my way to Middlemount to investigate the fatality and to inspect some documents.

3 July 2019

126. There was an incident involving a gas exceedance at 5.03am on 3 July 2019. The Inspectorate was verbally notified at 6.26am on 3 July 2019 and I was verbally notified at 8.13am. The written notification was received at 5.24pm on 3 July 2019, at the same time as I received the notification for the incident the day prior.

127. The incident occurred on longwall 103 when the sheared was cutting from maingate to tailgate. At 5.03am the shearer reached shield 144 when a sudden increase in gas was observed at the inbye tailgate sensor. The sensor reached a peak at 2.7%. At 5.11am the outbye sensor peaked at 2.52%.

128. I did not attend the mine because work had already recommenced by the time I was notified and I believed that there was no longer an unacceptable risk to coal mine workers. I was at Middlemount mine at the time and inspecting documents as part of my investigation.

11 July 2019

129. There was an incident involving a gas exceedance at 1.36am on 11 July 2019. The Inspectorate was verbally notified at 7.44am on 11 July 2019 and I was notified at 7.42am. The written notification was received at 8.20am on 11 July 2019.

130. The incident occurred when the longwall was down at the time of the event due to an electrical issue and gas readings on the tailgate drive motor started to rise and tripped power to the face. The tailgate 103 inbye sensor recorded a peak of 2.79% at 1.37am and the outbye sensor peaked at 2.55% at 1.46am. Upon inspection of the face a floor blower in between shields 55 and 56, towards the back of the shields, was observed while the shearer was parked at shield 45. Prior to the event the shearer was cutting from tailgate to maingate and had been down since 1.13am with no production activities or shield movements taking place at the time of the event.

131. I did not attend the mine because I was notified nearly six (6) hours after the incident occurred and work had already recommenced by that time. I believed that there was no longer an unacceptable risk to coal mine workers. I was also driving from Middlemount to Mackay after having been in Middlemount for several days.

Signed: [redacted] Taken by: [redacted]

14 July 2019

132. There was an incident involving a gas exceedance at 11.25am on 14 July 2019. The Inspectorate was verbally notified at 12.56pm on 14 July 2019 and I was notified at 1.05pm. The written notification was received at 8.01am on 15 July 2019.

133. The incident occurred when the longwall was producing with the shearer cutting from maingate to tailgate. Prior to the event the shearer speed had been reduced to 8 meters per minute from shield 60 due to elevated gas levels in the tailgate roadway. When the shearer reached shield 82 at 11.15am the inbye sensor in the tailgate detected a reading of 2.3% and the shearer was stopped. At 11.25am the outbye sensor reached 2.52%.

134. I did not attend the mine because work had already resumed by the time I had been notified and I believed that there was no longer an unacceptable risk to coal mine workers. I also noticed that there was reference to a change of ventilation in the bleeder/perimeter roadway that had been brought forward to 15 July 2019 in an attempt to reduce the gas levels in the longwall maingate and the overall gas levels across the longwall ventilation circuit. On this day there was a serious accident in Collinsville involving a worker who had fallen 15 metres and was in a serious condition. I was on my way to the mine to conduct my investigation.

15 July 2019

135. There was an incident involving a gas exceedance on 15 July 2019 at 1.49pm. The Inspectorate was verbally notified at 3.21pm on 15 July 2019 and I was notified at 3.27pm. The written notification was received at 2.56pm on 16 July 2019.

136. The incident occurred during the scheduled maintenance on the ventilation system. At 1.49pm the first part of the ventilation change was completed and the change increased the quality of air along the longwall face, as well as the differential pressure across the longwall face. The change resulted in the GOAF fringe being increased and additional gas pulled out at the tailgate. The inbye tailgate sensor peaked at 2.5% whilst the outbye sensor reached a peak of 2.71%.

Signed: [redacted] Taken by: [redacted]

137. I did not attend the mine because I expect there to be incidents involving gas exceedances when maintenance is performed on the ventilation system and work had already recommenced. Further, when the written notification was sent, there was information about the performance of the new ventilation system which indicated what the maintenance was. I believed that there was no longer an unacceptable risk to coal mine workers. On this day I was involved in a telephone conference with North Goonyella coal mine.

21 July 2019

138. There was an incident involving a gas exceedance at 1.05pm on 21 July 2019. I was on leave at the time and Jason Hill dealt with the notification.

22 July 2019

139. There was an incident involving a gas exceedance at 12.45pm on 22 July 2019. I was on leave at the time and Jason Hill dealt with the notification.

23 July 2019

140. There was an incident involving a gas exceedance at 3.44pm on 23 July 2019. I was on leave at the time and Jason Hill dealt with the notification.

24 July 2019

141. There were two (2) incidents involving a gas exceedance at 12.15pm on 24 July 2019. I was on leave at the time and Jason Hill dealt with the notification.

17 August 2019

142. There was an incident involving a gas exceedance at 3.28pm on 17 August 2019. I was on leave at the time and Jason Hill dealt with the notification.

19 October 2019

143. There was an incident involving a gas exceedance at 4.32pm on 19 October 2019. I was verbally notified at 6.17pm and the Inspectorate was notified at 6.11pm. The written notification was received at 6.45am on 20 October 2019.

144. The incident occurred at when at 4.30pm the shearer on the longwall 103 face was cutting into the tailgate. The shearer haulage was stopped at 140 roof support due to the inbye sensor in the tailgate roadway reading greater than 2.3%. At 4.43pm the inbye sensor peaked at 2.67% and remained above 2.5% for 90 seconds. The outbye tailgate sensor exceeded 2.5% at 4.32pm, peaked at 2.62% and remained above 2.5% for 110 seconds.

Signed: [redacted] Taken by: [redacted]

145. I did not attend the mine because work had resumed by the time I was notified and I believed that there was no longer an unacceptable risk to coal mine workers.

7 November 2019

146. There was an incident involving a gas exceedance at 3.04am on 7 November 2019. The Inspectorate was verbally notified at 6.46am on 7 November 2019 and I was notified at 6.48am. the written notification was received at 9.14am on 8 November 2019.

147. The incident occurred when, during normal production, the shearer on the longwall 103 face was travelling to the maingate (cutting bi-directional) when at roof support 9 a floor blower became active at roof supports 22 and 55 after mining past the area and advancing the face. The tailgate drive sensors at 3.04am went above 2.0% tripping the face power. The sensor in the tailgate roadway peaked at 2.73% at 3.08am.

148. I did not attend the mine because I was notified more than three (3) hours later and work had already recommenced and I believed that there was no longer an unacceptable risk to coal mine workers. I was travelling to Dysart to participate in a technical advisory committee meeting for mines rescue.

Longwall 104 in operation

149. Longwall 104 started production in March 2020. This is the same longwall that is in operation today and is also where the explosion on 6 May 2020 occurred. There have been numerous notifications of gas exceedances since longwall 104 started. They are as follows.

18 March 2020

150. The gas exceedance occurred at 9.33pm on 18 March 2020 and I was verbally notified until 5.02pm on 19 March 2020, which was nearly 20 hours later. The Inspectorate was verbally notified at 6.00am on 19 March 2020, approximately 11 hours before I was. I received the written notification at 11.30am on 20 March 2020.

151. The gas exceedance on this occasion occurred on the tailgate at longwall 104 while they were cutting into the tailgate. There was a spike in concentration and a reading of 2.56% was picked up by the tailgate sensor at 9.33pm. There was a reading of 2.3% at the outbye sensor at 10.00pm and work resumed.

Signed: [redacted] Taken by: [redacted]

152. As I was not notified about this incident until nearly 20 hours after it had occurred, I did not attend the mine because I believed that there was no longer an unacceptable risk to coal mine workers. On this day there were oral submissions being presented during a coronial inquest that I had been observing.

19 March 2020

153. There was another incident involving gas exceedance at 6.50am on 19 March 2020. The Inspectorate was verbally advised at 6.50am on 19 March 2020 and I was advised at 5.02pm on 19 March 2020, at the same time that I was advised about the gas exceedance on 18 March 2020. The written notification was received at 11.30am on 20 March 2020.

154. This incident occurred at chocks 125-138 on the tailgate on longwall 104 while they were double chocking to carry out planned maintenance activities on the longwall face. The inbye sensor detected a reading of 3.01% at 6.50am and the shearer was parked at chock 115 for 175 minutes.

155. I did not attend the mine to investigate this incident because I did not believe it was unusual for a gas exceedance to occur during scheduled maintenance. Further, I was not told about the incident until more than six (6) hours after it had occurred and the gas had been purged and the shearer had already resumed work, so I believed that there was no longer an unacceptable risk to coal mine workers.

20 March 2020

156. There were two (2) incidents involving gas exceedances early in the morning on 20 March 2020. They occurred at 2.20am and 3.30am. The Inspectorate received a verbal notification of both incidents at 6.45am on 20 March 2020 and I was notified at 6.56am. The written notification was received at 11.33am on 20 March 2020.

157. The incident at 2.20am occurred when the shearer was stopped so maintenance to clean the flamer rester on GSM11 could be carried out. While they were cleaning the flamer rester the inbye sensor detected a reading of 2.51% at 2.20am. It peaked at 2.84% at 2.30am.

158. The second incident occurred while they were cutting into the tailgate with the shearer at chock 133. A gas exceedance occurred, and the tailgate sensor detected a reading of 2.55%.

Signed: [redacted] Taken by: [redacted]

159. The issues would have been resolved by the time I arrived. Further, the causes of the incidents did not appear to me to be related because one occurred during maintenance of the gas well while they cleaned the flamer rester. Once they put the flamer rester back in, they would have been ready to resume work once they purged the gas. As the second incident related to them shearing, it was clear that work had already resumed after the scheduled maintenance.

160. There was another incident involving a gas exceedance at 2.56pm. The Inspectorate received the verbal notification at 4.51pm and I received a verbal notification at 4.56pm. The written notification was received at 6.30pm on 20 March 2020.

161. The incident occurred when at 2.17pm the shearer was cutting from the tailgate towards the maingate and was stopped due to a reading of 2.1% on the tailgate inbye sensor. The gas level continued to rise and at 2.36pm it hit 2.5% on the inbye sensor. It then increased to a peak of 3.55% at 3.03pm. An investigation found that the GRO47002A GOAF drainage hole had shut down unexpectedly due to a Co2 cylinder losing pressure and closing the emergency shutoff valve.

162. As with the other incidents, the gas would have been purged and work would have resumed by the time I arrived, so I didn't travel to the mine.

163. As all three (3) incidents on 20 March 2020 were caused by different factors, with no pattern emerging and around 12 hours between the first two incidents and the third, I was not overly concerned about the fact that there had been several incidents reported that day. I formed the impression, for those reasons, that the occurrence of 3 gas exceedances in one day was simply a coincidence. Further, by the time that I was notified of each, I believed that there was no longer an unacceptable risk to coal mine workers.

22 March 2020

164. There was an incident involving a gas exceedance at 10.22am on 22 March 2020. The Inspectorate was verbally notified at 6.15pm and I was verbally notified at 6.21pm. I received the notification at 4.27pm on 23 March 2020.

165. The incident occurred while the shearer was cutting towards the tailgate at 9.15am and stopped at shield 115 due to a six (6) hour maximum rise to 1.25% and 67minutes later produced a reading of 2.54% on the inbye sensor. The GOAF drainage plant tripped for 12 minutes due to electricians carrying out manual O2 gas calibrations.

Signed: [redacted] Taken by: [redacted]

166. I did not attend the mine because I was notified eight (8) hours after the event had occurred and work had already resumed. Further, the incident happened during maintenance work on O2 gas calibrations, so a gas exceedance in those circumstances is not surprising.

23 March 2020

167. There was an incident involving a gas exceedance at 6.28am on 23 March 2020. The Inspectorate was verbally notified at 2.47pm and I was verbally notified at 2.51pm. The written notification was received at 4.27pm on 23 March 2020, at the same time as the notification for the incident that occurred the day prior.

168. The incident occurred because there was a change in the longwall GOAF which resulted in a change in pressure in the GOAF drainage hole at the back of the wall. The suction pressure from the GOAF skid and plant was less than that produced by the longwall 104 GOAF which resulted in the tailgate outbye sensor detecting 2.5% at 6.28am and it peaked at 2.55% at 7.00am. It remained above 2.5% for 95 minutes.

169. I did not attend the mine because I was notified of the event eight (8) hours later and work had already resumed when I was notified. Further, the incident was four (4) kilometres away from where the incident had occurred the day prior. I was travelling to Brisbane on this day.

6 April 2020

170. There were two (2) incidents involving gas exceedances on 6 April 2020. The Inspectorate was verbally notified at 4.36pm and I was verbally notified at 4.39pm. The written notification was received at 4.55pm on 7 April 2020.

171. One incident occurred on the development panel 105 at the maingate at about 9.45am. During the bulging process the window power to underground dropped off and the auxiliary fan vent to the production face stopped at 8.50am. With the auxiliary fans off the natural vent through fan was operating at a rate of 1.1 metres per second during the inspection of the face area. Prior to restarting the fans, a reading of 2.5% was detected in the B-heading 100 metres outbye of three cut through.

172. The other incident occurred at longwall 104 at 11.31pm. The shearer was cutting towards the tailgate and stopped via automation at 1.09pm. The inbye sensor detected a reading of 1.8% and 22 minutes after the shearer stopped the gas level peaked at 2.56%. The shearer stayed stopped and the outbye sensor detected a reading of 2.5% for six (6) minutes.

Signed: [redacted] Taken by: [redacted]

173. I did not attend the mine to investigate these incidents. They occurred in different parts of the mine and were apparently unrelated. The incident on the development panel happened because they degreased the fans and then restarted them so it was not surprising that there was a gas exceedance when that occurred. They purged the methane for doing the repairs. The incident on the longwall had been and gone and work had already recommenced. I was in Brisbane at the time and was driving. I had to collect a new work vehicle.

7 April 2020

174. There was an incident involving gas exceedance at 2.21pm on 7 April 2020. The Inspectorate was verbally notified at 4.36pm and I was verbally notified at 4.39pm. The written notification was received at 4.55pm on 7 April 2020, at the same time the notifications for the incidents the day prior were received.

175. The shearer was cutting from the maingate to the tailgate and stopped at shield 105 for 20 minutes. There was a gas exceedance at tailgate 104 three to four cut through at the B-heading outbye return monitor. Due to additional methane being present in the inbye C-heading roadway there was a reading of 2.04%. The shearer stopped at 115 shield due to pre-set cut-offs and stopped for six (6) minutes. The maximum value of the exceedance was 2.52%.

176. I did not attend the mine because the issue was resolved by the time I was notified. I was also travelling home from Brisbane in the new work vehicle that I had collected.

9 April 2020

177. There was an incident involving a gas exceedance at 10.15am on 9 April 2020. The Inspectorate was verbally notified at 1.45pm and I was verbally notified at 1.50pm. I received the written notification at 1.56pm on 9 April 2020.

178. The incident occurred because there was a planned power outage so they could complete the one monthly earth leakage stat test. The ventilation set up prior to power off during the pre-inspection prior to restarting the auxiliary fans found that there was a reading of 3.86% on platforms of the miner. Both headings were degreased by 10.45am.

179. I did not consider this event to be unusual because it related to scheduled maintenance, so I did not attend the mine to investigate it. I had a meeting with the SSHRs at Moranbah North about another safety matter.

Signed: [redacted] Taken by: [redacted]

21 April 2020

180. There were three (3) incidents involving gas exceedances on 21 April 2020. They occurred at 12.58am, 1.54am and 1.06pm.

181. At 12.58am on longwall 104 there was an exceedance of more than 2.5% on the S43A sensory on shield. The shield detected a reading of 1.18% heading into the tailgate and peaked at 3.08% at 1.04am on the inbye sensor. The tailgate peaked at 1.48% at 1.08%. The GOAF was hanging in the tailgate roadway approximately 20-25 centimetres from the back of shield 149.

182. At 1.54am on 21 April 2020 there was another gas exceedance. After the event at 12.55am the gas had dropped and was steadying. The shield repowered and they recommenced cutting at 1.53am. S234A sensor went detected a reading above 2.5% at 1.54am and peaked at 2.55%. The shearer had moved from 118 to 134. After the event the butcher's curtain at 145 was altered to get more even flow of air in the back walkway. Brattice wings were installed after the first event to limit the impact of the GOAF on the tailgate area. The Inspectorate was verbally notified at 1.04pm on 21 April 2020 and I was verbally notified at 2.47pm, at the same time that I was notified about the earlier incident.

183. At 1.06pm the shearer was cutting into the tailgate and stopped at 141 chock when a gas exceedance tripped the AFC and shearer. The exceedance time above 2.5% was one (1) minute and produced a maximum reading of 2.66%. I was verbally notified at 2.47pm and the Inspectorate was verbally notified at 2.47pm. I received the written notification for all three (3) incidents at 3.36pm on 21 April 2020.

184. As the exceedances had been resolved and work had recommenced, I did not go to the mine to investigate.

185. There was a further incident involving a gas exceedance at 11.06pm. The Inspectorate was verbally notified at 4.41pm on 22 April 2020 and I was verbally notified at 4.53pm.

186. The incident occurred on longwall 104. At 11.06pm the shearer cut out near the tailgate while they were heading back towards the maingate and stopped at shield 144. The gas exceedance tripped the AFC and shearer. The sensor on the tailgate shield exceeded 2.00% and peaked at 5.04%. The exceedance time was 10 minutes.

Signed: [redacted] Taken by: [redacted]

187. I wasn't told about the incident until the following afternoon. I did not attend the mine on this day because I was dealing with other matters. Specifically, I attempted to attend a coercive interview with member Shan Isaacs (as outlined above). Following that I spent the rest of the day obtaining legal advice in relation to the stance taken by the Inspectorate.

6 May 2020

188. There was an incident at the mine that involved an ignition of gas at the longwall face of longwall 104 panel at 2.57pm on 6 May 2020. Five (5) workers were seriously injured.

189. The Inspectorate was verbally notified at 3.39pm and I was verbally notified at 4.09pm. As soon as I was notified, I contacted the other ISHRs and we travelled to the mine immediately. I estimate that I arrived at the mine at about 6.00pm and by the time I had gotten there the mine had been evacuated and the injured workers had been transported to the hospital. I received the written notification at 4.05pm on 7 May 2020.

190. When I arrived at the mine, I was stopped at the gate by a security guard and he wouldn't let me in. I called the Underground Mine Manager and he called the security officer and instructed him to let me in. I then drove to the carpark and parked my car and went in through the turnstile gate. I had to call someone to let me in and it was about 10-15 minutes before I was allowed in.

191. Once I was inside the gate I signed in at the front counter and the SSE, Trent Griffith, and Larry Dickson, the Night-Shift Undermanager, was also there. I asked for an update and they told me that there had been an explosion and five (5) workers were seriously injured. They told me who the injured workers were and the status of their transportation to Brisbane for medical assistance. I asked some questions around the event, such as what happened, what they know, where the incident happened, where the other workers were, whether anyone was underground still, what directives the company had been issued by the Inspectorate, etc.

192. They told me that the shearer was parked and it had been parked for around three (3) minutes prior. The event happened at 12.57pm. No one was allowed underground because the Inspectorate had issued a directive that no one go underground until further notice.

Signed: [redacted] Taken by: [redacted]

193. I estimate that I was at the mine for around 1.5 hours. The other ISHRs didn't come to the site because I had left before they arrived in town. I called them and told them what I knew and they then met me at the motel.

194. The notification states that at 2.57pm an ignition of gas occurred on the longwall face of longwall 104 panel. At the time of the event the longwall shearer had been idle for approximately five (5) minutes. The longwall operations were in the process of advancing the hydraulic roof supports in an area of faulted ground when an ignition occurred. This is consistent with what I was told when I attended the mine.

195. All three (3) ISHRs went to the mine the next day, and every day after that for the following eight (8) days.

196. The matter is still under investigation.

Conversations with Grosvenor SSE regarding gas exceedances

197. Most times I received a notification from the Grosvenor mine, around 98% of the time, I spoke to the Underground Mine Manager, Wouter Niehaus. I only spoke to the SSE, Trent Griffith a couple of times.

198. Each time I spoke to Mr Niehaus from the Grosvenor mine, contacted me to report the gas exceedances he always played down what had happened. He would say things like:

    (a) *"the GOAF drainage shut down"*;

    (b) *"we were only just over"*;

    (c) *"it was only two minutes"*.

199. The conversations were always very short; it was mainly just a brief exchange of information.

200. In my view, if I had attended the mine to investigate the gas exceedances it would have become an argument about what I could do and what I couldn't do while I was there.

201. As far as I was concerned, there were processes in place at the mine with respect to managing gas exceedances. There were work instructions for when they moved and set up production in the longwall and part of those instructions consider ventilation.

Gas exceedances at Moranbah North coal mine

202. The Moranbah North mine is also operated by Anglo-American.

Signed: [redacted] Taken by: [redacted]

203. I have received approximately 18 notifications about gas exceedances at the Moranbah North coal mine for the period that the terms of reference include. There was also an ignition of gas at the Moranbah North coal mine, but that event occurred outside the period referred to in the terms of reference.

204. Instead of providing a verbal notification about incidents, I am usually sent a text message. In or about late-May 2020 I have advised the SSE that I need to be notified verbally from now on so that I can ask any questions that I may have.

14 July 2019

205. At 8.15am on 14 July 2019 there was an incident involving a gas exceedance. The inspectorate was verbally notified at 2.53pm on 14 July 2019 and I was notified at 3.39pm by text message. The written notification was received at 6.16pm on 14 July 2020.

206. The incident happened because there was a build-up of gas between airlock stoppings and the door had been adjusted by a Deputy. The gas level peaked at 3.19%.

207. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers.

20 July 2019

208. There was an incident involving a gas exceedance at 12.00pm on 20 July 2020. The Inspectorate was verbally notified at 3.06pm and I was notified at 4.40pm by text message. The written notification was received at 4.53pm on 20 July 2019.

209. The incident occurred when the shearer was cutting into the tailgate and a goaf flushing caused an exceedance which tripped power. The gas level peaked at 3.36%.

210. I did not attend the mine because work had already resumed and I believed that was no longer an unacceptable risk to coal mine workers. I was also on leave on this day but would arranged for one of the other ISHRs to have travelled to the mine if there was an unacceptable risk to coal mine workers. That would have meant that an ISHR would have had to fly there from Brisbane or driven there from Rockhampton.

2 August 2019

211. There was an incident involving a gas exceedance at 7.40am on 2 August 2019. The Inspectorate was verbally notified at 4.41pm and I was notified at 7.06pm by text message. The written notification was received at 7.54pm on 2 August 2019.

Signed: [redacted] Taken by: [redacted]

212. The incident occurred because the main fan at shaft 4 failed while another fan tripped due to a failed airline. This caused the gas to exceed 2.5%. The fans were immediately repaired and restarted.

213. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers.

6 August 2019

214. There was an incident involving a gas exceedance at 6.27am on 6 August 2019. The Inspectorate was verbally notified at 1.41pm on 6 August 2019 and I was notified at 1.58pm by text message. The written notification was received at 4.31am on 7 August 2019.

215. The incident occurred because there was a failure of the main fans at shaft 4 due to an interruption in the power supply. The gas levels peaked at 3.85% after the fans were restarted.

216. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I was also notified more than seven (7) hours after the incident. I was at North Goonyella coal mine at the time participating in a "safety reset".

31 August 2019

217. There were two (2) incidents involving gas exceedances on 31 August 2019. They both occurred at 4.47am. The Inspectorate was verbally notified about both incidents at 7.54am on 31 August 2019 and I was notified at 8.08am by text message. The written notification was received at 2.29pm on 31 August 2019.

218. Both incidents occurred because there was an electrical fault that caused the fans to stop. The gas levels exceeded 5% on three (3) sensors.

219. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I also didn't realise that the gas levels were so high because I wasn't told in the text message and only found out when I received the written notification. Had I known the readings when I was advised I would have likely attended the mine due to the presence of such high readings in so many areas of the mine.

Signed: [redacted] Taken by: [redacted]

1 September 2019

220. There were two (2) incidents involving gas exceedances at 4.16am and 5.55am on 1 September 2019. The Inspectorate was verbally notified at 11.14am on 1 September 2019 and I was notified at 11.22am by text message. The written notification was received at 5.09pm on 1 September 2019.

221. The incidents occurred because the main fans at shafts 4 and 2 tripped due to loss of power while they were being repowered and degassed. This resulting in gas readings that were higher than 5% in three (3) parts of the mine, and above 2.5% in two (2) other areas.

222. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I also didn't realise that the gas levels were so high because I wasn't told in the text message and only found out when I received the written notification.

4 September 2019

223. There was an incident involving a gas exceedance at 12.40pm on 4 September 2019. The Inspectorate was verbally notified at 3.03pm on 4 September 2019 and I was notified at 3.15pm by text message. The written notification was received at 7.55am on 5 September 2019.

224. The incident occurred because there was a loss of fans. There was a reading of 5.52% in the B Heading face when it peaked. When the fans were restarted at 12.48pm the readings were below 2.5% within eight (8) minutes.

225. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I also didn't realise that the gas levels were so high because I wasn't told in the text message and only found out when I received the written notification. I was in Townsville at the time.

8 September 2019

226. There was an incident involving a gas exceedance at 11.25pm on 8 September 2019. The Inspectorate was verbally notified at 6.54am on 9 September 2019 and I was notified at 6.59am by text message.

227. The incident occurred because there was a mains power outage which caused two (2) fans in shaft 4 to trip. The gas levels exceeded 5% in two (2) parts of the mine and 3.53% in one (1) other part.

Signed: [redacted] Taken by: [redacted]

228. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I also didn't realise that the gas levels were so high because I wasn't told in the text message and only found out when I received the written notification.

10 October 2019

The earlier incident

229. There was two (2) incidents involving gas exceedances on the morning of 10 October 2019. They occurred at 7.30am and 11.40am. The Inspectorate was verbally notified of both incidents at 2.52pm on 10 October and I was notified at 3.02pm by text message. The written notification was received at 4.14pm on 10 October 2019.

230. The cause of the first incident a trip on an auxiliary fan. The second incident was caused by a sensor tripping. Both notifications stated that the cause of the incident was still being investigated.

231. Had I been notified about these events sooner I would have attended the mine because work had not resumed and there may have been an unacceptable risk to the coal mine workers. I did not realise the cause of the incident until I received the written notification hours later. I had a specialist cardiologist appointment that had been booked months prior. If there had been an unacceptable risk to coal mine workers, I would have arranged for Jason Hill to attend the mine.

The later incidents

232. There was an incident involving a gas exceedance at 10.30pm on 10 October 2019. The Inspectorate was notified at 6.56am on 11 October 2019 and I was notified at 7.18am by text message. The written notification was received at 12.25pm on 11 October 2019.

233. The incident was due to a trip on the auxiliary fan ventilating the 605 cross drive which resulted in a gas exceedance of more than 2.5% in the face area of the driveage.

234. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I was not notified of the incident until the following day.

21 October 2019

Signed: [redacted] Taken by: [redacted]

235. There was an incident involving a gas exceedance at 9.36pm on 21 October 2019. The Inspectorate was verbally notified at 7.39am on 22 October 2019 and I was notified at 7.49am by text message. The written notification was received at 11.46am on 22 October 2019.

236. The incident occurred due to the loss of underground power to the pit bottom and the subsequent trip of the auxiliary fan ventilating the maingate cross drive resulted in a gas exceedance of more than 2.5% in the face area of the driveage.

237. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers. I was not notified of the incident until the following day and I was in Rockhampton at the time attending an ISHR meeting.

22 October 2019

238. There was an incident involving a gas exceedance at 3.19am on 22 October 2019. The Inspectorate was verbally notified at 7.39am on 22 October 2019 and I was notified at 7.49am by text message. The written notification was received at 11.46am on 22 October 2019, at the same time as the notification for the incident that occurred the day prior.

239. The incident occurred when they were testing a replacement sensor for the ERZ/NERZ boundary sensor and power tripped at the maingate cross drive panel which resulted in a gas exceedance of more than 2.5% in the face area of the driveage.

240. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers.

24 October 2019

241. There was an incident involving a gas exceedance at 4.10pm on 24 October 2019. The Inspectorate was verbally notified at 8.21pm on 24 October 2019 and I was notified at 8.27pm by text message. The written notification was received at 12.45pm on 25 October 2019.

242. The incident occurred because a ventilation tube sucked flat and the borehole needed to be intersected with a new tube installed. The NERZ/ERZ sensor tripped and removed the ventilation from the face stub which resulted in a reading of more than 2.5%.

Signed: [redacted] Taken by: [redacted]

243. I did not attend the mine because work had already resumed and I believed that there was no longer an unacceptable risk to coal mine workers.

14 November 2019

244. There was an incident involving a gas exceedance at 6.35pm on 14 November 2019. The Inspectorate was verbally notified at 6.37am on 15 November 2019 and I was notified at 6.40am by text message. The written notification was received at 12.02pm on 15 November 2019.

245. The incident occurred because the main fans at shaft number 4 tripped due to a lightning strike on incoming 11kv power which resulted in a loss of ventilation and a gas exceedance of up to 3.35% in the maingate A heading. I did not attend the mine following this incident because I was not notified until the following day. Further, the cause of the incident was very clear and not preventable. By the time that I found out about it, I believed that there was no longer an unacceptable risk to coal mine workers.

6 April 2020

246. There was an incident involving a gas exceedance at 11.47pm on 6 April 2019. I was notified by text message at 7.50am on 7 April 2020. The Inspectorate was verbally notified at 7.37am on 7 April 2020 and the written notification as sent on 10.40am.

247. The incident involved a reading of 2.64% at the gas stub inbye centre. It occurred while drillers were in the process of removing a 4-inch two-piece between the sandpipe isolation knife valve and stuffing box. It occurred at 11.47pm and It was on maingate 606 and the longwall was at 605.

248. I did not attend the mine following this event because the issue had been resolved and work had resumed. It also happened on the development part of the mine and not the longwall. I reviewed the written notification when it was sent to me and believed that there was no longer an unacceptable risk to coal mine workers.

Affirmed by the deponent on 24 July 2020 at Mackay in the presence of:

Signed: [redacted] [redacted]

Deponent Solicitor/Justice of the Peace

COMMISSIONER FOR DECLARATIONS Reg.No.: 113150 DEPT. OF JUSTICE & ATTORNEY-GENERAL

Olivia Lee Morgan

Signed: [redacted] Taken by: [redacted]

QUEENSLAND COAL MINING BOARD OF INQUIRY

AFFIDAVIT OF STEPHEN WOODS

This is the annexure marked "**SW-1**" referred to in the Affidavit of Stephen Woods affirmed 24 July 2020.

Signed: [redacted]

Taken by: [redacted]

Sarah Cavanagh

Subject: Standardisation of MRE distribution

Importance: High

From: BORG Amanda <Amanda.Borg@dnrme.qld.gov.au>
Sent: Monday, 17 February 2020 12:32 PM
To: BRENNAN Keith <Keith.Brennan@dnrme.qld.gov.au>; BROWN Paul (Mines) <Paul.Brown2@dnrme.qld.gov.au>; BROWNETT Malcolm <Malcolm.Brownett@dnrme.qld.gov.au>; DJUKIC Fritz <Fritz.Djukic@dnrme.qld.gov.au>; DOBSON Shaun <Shaun.Dobson@dnrme.qld.gov.au>; KEANE Rodney <Rodney.Keane@dnrme.qld.gov.au>; KENNEDY Matthew <Matthew.Kennedy@dnrme.qld.gov.au>; LOGAN Anthony <Anthony.Logan@dnrme.qld.gov.au>; LYDON Mark <Mark.Lydon@dnrme.qld.gov.au>; NEWMAN Peter <Peter.Newman@dnrme.qld.gov.au>; NUGENT Geoff <Geoff.Nugent@dnrme.qld.gov.au>; SCULLY Michael <Michael.Scully@dnrme.qld.gov.au>; SMITH Andrew <Andrew.Smith@dnrme.qld.gov.au>; SMITH Stephen (Mining Inspector) <Stephen.Smith2@dnrme.qld.gov.au>; SULLIVAN Paul <Paul.Sullivan@dnrme.qld.gov.au>; TOWERS Noel <Noel.Towers@dnrme.qld.gov.au>; VINNICOMBE Jacqui <Jacqui.Vinnicombe@dnrme.qld.gov.au>; Rae Chafer <r.chafer@cfmeuqld.asn.au>; OHS Distribution Group <ohs@cfmeuqld.asn.au>; Blair Athol Coal Mine <brad.marshall@linkmining.com.au>; BMA Operations - Caval Ridge / Daunia / Goonyella Riverside / Norwich Park / Peak Downs / Saraji <Bobbie.M.Foot@bhpbilliton.com>; BMA Operations - Caval Ridge / Daunia / Goonyella Riverside / Peak Downs / Saraji <frans.knox@bhp.com>; Broadlea <jjoubert@fitzroyoz.com>; Burton Demobilisation Sites / Qcoal Northern Hub <cbourke@thiess.com.au>; Burton Mine <janger2@peabodyenergy.com>; Burton Mine <kodowd@peabodyenergy.com>; Byerwen Mine <pkane@qcoal.com.au>; Byerwen Mine <reception@qcoal.com.au>; Clermont Coal / Collinsville / Newlands Open Cut / Hail Creek <dawid.pretorius@glencore.com.au>; Eureka Creek Village <leannegraham@compass-group.com.au>; Isaac Plains <colin.cockburn@golding.com.au>; Lake Vermont / Lake Vermont Construction Area 3 <cmulligan@thiess.com.au>; Middlemount Mine <gjordaan@middlemount.com.au>; New Burton Coal Mine <aboyd@newhopegroup.com.au>; Peabody Operations - Coppabella / Millennium / Moorvale <shedges@peabodyenergy.com>; Poitrel, South Walker & Red Mountain <elsabe.muller@bhp.com>; BHP Billiton <Vikki.Brown@bhpbilliton.com>; BHP Billiton <Emma.Haigh@bhpbilliton.com>; Coal Australia - Manager Health - Liam Wilson <liam.wilson@rtca.riotinto.com.au>; Daunia <DL-COL-BMA-DNM-SSE@bhpbilliton.com>; Daunia <Lydia.Gentle@bhpbilliton.com>; Daunia <DL-COL-BMA-DNM-Admin@bhpbilliton.com>; Newlands <Nicole.Clark@glencore.com.au>; Peak Downs Mine <Kelsie.Maher@bhpbilliton.com>; Red Mountain <cassandra.dobell@bhp.com>; Saraji - Legislative Correspondence <srmmre@bhpbilliton.com>; South Walker Creek <Melanie.Carberry@bhp.com>; SSE - Blair Athol Mine <bobd1342@gmail.com>; SSE - Byerwen <khaley@qcoal.com.au>; SSE - Carmichael <michael.harrison@adani.com.au>; SSE - Caval Ridge <brad.prytherch@bhp.com>; SSE - Clermont Open Cut <michael.charles@glencore.com.au>; SSE - Collinsville <Phil.Nobes@glencore.com.au>; SSE - Coppabella <ttrott@peabodyenergy.com>; SSE - Daunia <Lori.Smith@bhp.com>; SSE - Eureka Creek Village <DavidLAW@Compass-group.com.au>; SSE - Goonyella Riverside <sean.milfull@bhp.com>; SSE - Hail Creek <david.waddell@glencore.com.au>; SSE - Millennium <dchampion@peabodyenergy.com>; SSE - Moorvale <mkline@peabodyenergy.com>; SSE - Nathan Spencer <nspencer@thiess.com.au>; SSE - Newlands <clayton.stansbie@glencore.com.au>; SSE - Norwich Park <ross.truelson@bhpbilliton.com>; SSE - Peak Downs <Brendan.K.Lynn@bhpbilliton.com>; SSE - Poitrel Mine <Sonia.Winter@bhp.com>; SSE - Qcoal Northern Hub <wdavison@thiess.com.au>; SSE - Red Mountain <susan.watkins@bhp.com>; SSE - Saraji <dan.iliffe@bhp.com>; SSE - South Walker Creek <edan.j.stolberg@bhpbilliton.com>; SSE -Isaac Plains <jason.greig@golding.com.au>; TEMP SSE - Collinsville 20/01 - 29/01/2020 <Paul.Sear@glencore.com.au>; TEMP SSE - QCoal 30/1-05/03/2020 <rnitz@thiess.com.au>; Eagld Downs <michelle.tracey@south32.net>; Eagle Downs Coal Mine ML 70389 <tenureadministration@aquilaresources.com.au>; Grasstree / Grosvenor / Moranbah North <ben.houston@angloamerican.com>; North Goonyella <mcarter@peabodyenergy.com>; Alisha Penrose (Grosvenor) <alisha.penrose@angloamerican.com>; Broadmeadow Mine <Priscilla.McPherson@bhpbilliton.com>; Broadmeadow Mine <Brook.Newman@bhp.com>; Carborough Downs <Regulator.alerts@fitzroyoz.com>; Carborough Downs <minerecord@fitzroyoz.com>; Eagle Downs Coal Mine ML 70389 <sse@eagledowns.com.au>; Grosvenor Mine <grosvenor.minerecord@angloamerican.com>; SSE - Broadmeadow <michael.thomas@bhp.com>;

SSE - Carborough Downs & Broadlea <ruhr@fitzroyoz.com>; SSE - Eagle Downs Coal Mine ML 70389 <andrewitzstein@pimsgroup.com.au>; SSE - Grasstree <damien.wynn@angloamerican.com>; SSE - Ironbark No.1 <avella@fitzroyoz.com>; SSE - Moranbah North <Paul.Stephan@angloamerican.com>; SSE - North Goonyella <nstanton@peabodyenergy.com>; SSE -Grosvenor <trent.griffiths@angloamerican.com>
Subject: Standardisation of MRE distribution
Importance: High

Good afternoon All Operators, SSE's and CFMEU,

The process of electronically distributing a Mine Record Entry by an Inspector is being standardised for all coal mines. This standardisation may affect your current site processes, hence this communication.
Mine Record Entries by an Inspector will be delivered only to the coal mine operator and the site senior executive, via their respective email address.

Where additional distribution lists have been included in the past for a mine, they will no longer be used.
How the Coal Mine Operator or the SSE choose to distribute copies of Mine Record Entries, is not a matter in which an Inspector has a role.

This standardisation of process will take effect immediately.
Please direct any enquiries to the undersigned.

Regards

Queensland Government

Stephen Smith
Regional Inspector of Coal Mines – North Region
Mines Inspectorate | Resources Safety and Health
Department of Natural Resources, Mines and Energy

[redacted]
E: Stephen.Smith2@dnrme.qld.gov.au
A: Level 5, 44 Nelson Street, Mackay QLD 4740 | PO Box 1801
Mackay QLD 4740
W: www.dnrme.qld.gov.au

QUEENSLAND COAL MINING BOARD OF INQUIRY

AFFIDAVIT OF STEPHEN WOODS

This is the annexure marked "**SW-2**" referred to in the Affidavit of Stephen Woods affirmed 24 July 2020.

Signed: [redacted]

Taken by: [redacted]

Sarah Cavanagh

Subject: Obstruction

From: Stephen Woods
Sent: [redacted]
To: [redacted]
Subject: Obstruction

[redacted]

Can you please respond in writing as to the reasons why we are not allowed to visit the site of the fatal incident at [redacted] We note that you have let the company officials into the site but have restricted us from entering the site to gather evidence for the investigation using our powers and functions provided to the office of ISHR. As you are both aware s 118 (1) (d) of the Coal Mines Safety and Health Act 1999 provides us with the ability to participate in investigations into serious accidents and high potential incidents and other matters related to safety or health at Coal mines.

Yours in safety
[Evolve:5566ea3e-2fd8-4b4b-b7f1-b974caaa3564]

QUEENSLAND COAL MINING BOARD OF INQUIRY

AFFIDAVIT OF STEPHEN WOODS

This is the annexure marked "**SW-3**" referred to in the Affidavit of Stephen Woods affirmed 24 July 2020.

Signed: [redacted]

Taken by: [redacted]

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

Brisbane
P.O. Box 508, Spring Hill Qld 4004
Level 2, 61 Bowen Street, Spring Hill 4000
P 07 3839 8588 F 07 3839 8404

Our ref:
Your ref:

1 June 2020

Reply to Mackay Office: om

INDUSTRY SAFETY AND HEALTH REPRESENTATIVE DISTRICT UNION INSPECTOR

Section 119 (1)(a) CMSHA

NAME OF MINE:	**Moranbah North Underground Mine**
ADDRESS:	
SENIOR SITE EXECUTIVE:	**Mr Paul Stephan**
CONTACT DETAILS:	**paul.stephan@angloamerican.com**
ACTIVITY TYPE	**Postal mine record entry**

Paul:

Today the 1st June 2020 at 07.43 hours I received a text message from Underground Mine Manager - Mr. Michael Lerch [redacted] regarding an event that occurred on the 31st May 2020 at approximately 17.50 hours. The event was a loss of incoming supply of power to the mine from Ergon Energy. The report then goes on to notify about Methane Exceedances at M/G 605 ERZ/NERZ Boundaries of 3.09% and 2.84% and M/G 606 Gas stub of 3.46%. The text report says nothing of power being supplied to sections of the mine without ERZ Controllers inspection having been completed. I understand that the introduction of supply came from an offsite location which has enabled supply to be put into the sections of the mine without being inspected.

To enable me to determine if procedures are in place at a coal mine to control the risk to safety and health of coal mine workers so that it is at a acceptable level and to detect unsafe practices and conditions at coal mines and to take action to ensure the risk to the safety and health of coal mine workers is at an acceptable level I request the following:

- Documents for restoring power to underground sections of the mine.
- Risk assessment for the above documents.
- Controls put in place to manage gas exceedances at the mine.
- PHMP for Gas Management.
- Procedure for investigating accidents and incidents pursuant to section 15 of the CMSHR.
- Procedure for giving notice of incidents pursuant to section 16 of the CMSHR.

I also make the following enquiries pursuant to section 119 (1) (a) of the CMSHA:

- What controls have been implemented to prevent recurrences of dangerous accumulation Methane in this area?
- What is in place to verify that the controls are effective and adequate in preventing dangerous accumulation of Methane in this area?
- What actions have been taken in relation to the introduction of power to the mine from an offsite location without ERZ controllers inspection being completed?
- Has an investigation been completed into these events and what were the outcomes into the investigation?
- Please provide a copy of the investigation report into these events including the investigation findings and corrective actions.
- I write to also inform you that I am unable to take HPI and serious accident notification reports via text messages moving forward and request that the provisions of sections 198 and 198A of the CMSHA be met.

I will produce my identification card at the first reasonable opportunity for your inspection. Please send all the requested documentation to this office at Po Box 11126 or by email to s.woods@cfmeuqld.asn.au by close of business 08/06/2020.

S. Woods

Industry Safety and Health Representative
District Union Inspector
C.F.M.E.U Mining and Energy Division
Queensland District Branch
Phone: [redacted]

Mobile: [redacted]
Fax: [redacted]
s.woods@cfmeuqld.asn.au

QUEENSLAND COAL MINING BOARD OF INQUIRY

AFFIDAVIT OF STEPHEN WOODS

This is the annexure marked "**SW-4**" referred to in the Affidavit of Stephen Woods affirmed 24 July 2020.

Signed: [redacted]

Taken by: [redacted]

Department of Natural Resources, Mines and Energy

Methane management in underground coal mines

Best practice and recommendations

June 2019

Queensland Government

SUMMARY

As Queensland underground coal mines have become deeper and longwall production rates have increased, mines are struggling to control the percentage of methane (CH_4) in the longwall return roadways tailgate.

Under the *Coal Mine Safety and Health Act 1999* and the Coal Mining Safety and Health Regulation 2017, if methane concentration is equal to or greater than 2.5% then the underground mine is dangerous and workers must be withdrawn from the mine. Methane is explosive between 5% and 15%.

The Mines Inspectorate recently completed a series of compliance audits and requested methane gas monitoring data from eight longwall mines so that a detailed analysis could be undertaken. The audits revealed that all mines' gas monitoring systems complied with the *Coal Mining Safety and Health Act 1999* but a review of gas data indicated that mines were not reporting all incidents over 2.5% methane. Modelling of the mines' ventilation and methane emissions has shown that in some cases explosive mixtures of methane could have been present in the atmosphere flowing into the longwall tailgate.

Following the issue of directives and substandard conditions and practice notices (SCPs), five mines introduced additional gas monitoring in the longwall tailgate interlocked to the longwall shearer so it automatically trips power to the shearer when methane reaches a certain level determined by a trigger action response plan (TARP).

Modelling of methane concentrations described in this document demonstrates how an increase in the general body concentrations in the longwall tailgate increases the risk profile of longwall operations. From this a mining operation can determine the applicability of this modelling to their operations and use this to determine the risk profile for their Longwall operations.

The Mines Inspectorate expects all underground coal mines to have effective gas monitoring systems with suitably placed methane detectors to prevent explosive accumulations of methane in areas where it could be ignited. Best practices and recommendations to achieve this are outlined in this document for mine operations to consider. At the time of writing this report, the Mines Inspectorate is also developing draft amendments to the regulation to prescribe minimum methane monitoring requirements, at all relevant locations in an underground coal mine.

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PURPOSE

The purpose of this document is to provide Queensland coal mines with information to consider when:

- determining location of additional monitor(s) that are interlinked to cut power to the longwall shearer which are critical controls for the management of risks from methane.
- determining suitable TARPs to prevent dangerous accumulations of methane in areas in the longwall tailgate where there are potential ignition risks.

This document does not cover the management of other gases which may be present in an underground coal mine.

BACKGROUND

In January 2017 the Mines Inspectorate became aware of issues relating to the management of methane in longwall coal mines. Coal mining operators were not controlling the methane levels in the longwall tailgate roadways. There were numerous occasions where the general body methane concentration met and exceeded 2.5%.

In February 2017 the Chief Inspector of Mines issued a letter to all underground site senior executives (SSEs) and underground mine managers (UMMs) advising them that if a roadway in a mine contains an atmosphere where the methane concentration is equal to or greater than 2.5% it is taken to be dangerous under section 366 of the Coal Mining Safety and Health Regulation 2017. If this occurs, coal mine workers must be withdrawn to a place of safety under section 273 of the *Coal Mining Safety and Health Act 1999*. As such, every occasion when methane is found in mine roadways required to be ventilated under regulation at a general body concentration of 2.5% or greater, must be reported as a high potential incident (HPI).

Investigations into these exceedances were undertaken at eight underground coal mines resulting in the issuing of directives and SCPs as well as the initiation of gas management audits focussed on methane management.

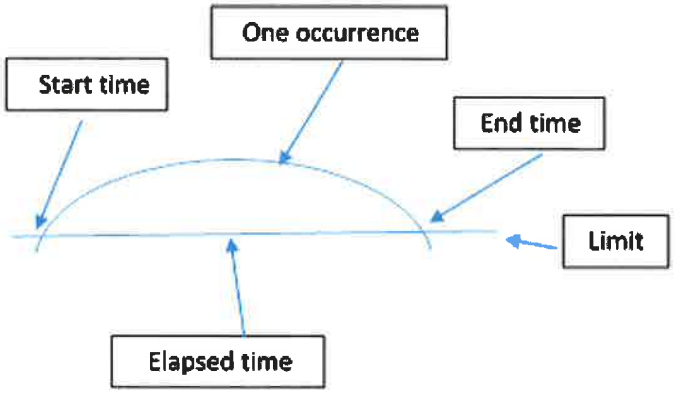
Operations at two sites were suspended due to the number of "dangerous" gas exceedances not being reported.

Subsequently eight underground coal mines were required to provide their real-time gas monitoring data to the Mines Inspectorate for the period 2016 to 2018 for analysis.

Definition of methane incident

For the purposes of the detailed analysis a 'methane incident' was defined as follows:

FIGURE 1: METHANE INCIDENT DEFINITION



Exceedance elapsed time was the period above the limit of 2.5% methane

LONGWALL METHANE ANALYSIS

The analysis of methane monitoring data from all underground coal mines with longwall operations from July 2016 to June 2018 has revealed that exceedances of general body methane concentrations occurred in six of the eight mines, with **all six** failing to report some of these exceedances to the Inspectorate.

Results of the detailed analysis of four coal mines having a large number of incidents are shown below. These mines are referred to as Mines A, B, E and F.

Mine A

- There were 264 independent methane exceedance incidents.
- In some, more than one gas detector exceeded 2.5%.
- **Only 22 of these were reported to the Inspectorate**
- One occurrence lasted 600 minutes.
- There were 69 days without methane monitoring data from the tailgate detectors.
- Methane levels above 2.5% were recorded over a total of 318 hours.
- Methane levels above 2.0% were recorded a total of 517 times, over a total of 1,559 hours (65 days).

Mine B

- There were 72 independent gas exceedance incidents (greater than or equal to 2.5%) in the roadway. In some, more than one gas detector exceeded 2.5%.
- **Only 15 of these were reported to the Inspectorate**
- One occurrence lasted 157 minutes.
- Methane levels above 2.5% were recorded over a total of 14 hours.
- Methane levels above 2.0% were recorded a total of 355 times, over a total of 198 hours.
- Many of these incidents correlated directly with the diurnal variation of the barometer and were predictable.

Mine E

- There were 135 independent gas exceedance incidents (greater than or equal to 2.5%) in the roadway. In some incidents, more than one gas sensor exceeded 2.5%.
- **Only 44 of these were reported to the Inspectorate**
- One occurrence lasted 530 minutes.
- Methane levels above 2.5% were recorded over a total of 78 hours.
- Methane levels above 2.0% were recorded a total of 603 times, over a total of 82430 hours (576 days).

Mine F

- There were 263 independent gas exceedance incidents (greater than or equal to 2.5%) in the roadway) plus another eight reported incidents without supported data. In some incidents, more than one gas sensor exceeded 2.5%.

- **Only 34 of these were reported to the Inspectorate**
- One occurrence lasted 423 minutes.
- Methane levels above 2.5% were recorded over a total of 83.1 hours.
- Methane levels above 2.0% were recorded a total of 822 times, over a total 1008 hours (42 days).

A summary of the results and analysis from all the underground mines is shown in Table 1.

Note that as the data recording frequency (time interval between samples) for monitoring the longwall return atmosphere was not consistent, in some cases there may be more exceedances than are actually recorded.

TABLE 1: SUMMARY OF TAILGATE METHANE MONITORING DATA - ALL QUEENSLAND UNDERGROUND LONGWALL MINES BETWEEN 1/7/16 AND 30/6/18

Mine	Exceedances reported	Exceedances not reported	Elapsed time at or exceeding 2.5 % (Hours)	Elapsed time at or exceeding 2.0 % (Hours)	Methane recording frequency
A	22	242	318	1559	5 minutes
B	15	57	14	198	10 seconds
C	7	13	10	28	Variable store time step, 1 minute above 2.5%, 12 minutes below 2.5%
D	4	1	<1	2	Variable store time step, 20 seconds above 2.5%, others between 1 to 10 minutes
E	44	91	78	1374	10 minutes
F	34	229	83	1008	5 minutes from July 2016 to April 2017; 30 seconds from May 2017 to June 2018
G	0	0		0	Variable store time step, 1 minute above 2.5%, 6 minutes below 2.5%
H	0	0		0	Variable store time step, 1 minute above 2.5%, 12 minutes below 2.5%

Five of the six underground mines issued with directives have implemented additional risk controls by placing an additional methane monitor in the longwall tailgate return airway within 400 metres of the longwall face. This additional monitor operates with specific TARPs for the purpose of controlling

the longwall operation to avoid incidents of general body methane concentrations equal to or greater than 2.5% in the tailgate.

Neither these monitors nor their alarm or trip levels are currently specified in the legislation. Mines A, E, and Mine F had these monitors installed, however they did not experience a reduction in exceedances during the data review period after corrective actions had been implemented. At the time of writing this report the Mines Inspectorate is finalising proposed amendments to the legislation to clarify and confirm minimum methane monitoring requirements, for all the relevant locations in the return airway from a Longwall face.

METHANE MONITORING AUDITS

As a result of the methane exceedances the Mines Inspectorate issued several directives and SCPs, and initiated gas management audits focused on methane management.

These audits found that:

- The installation of the gas monitoring equipment was in compliance with the Coal Mining Safety and Health Regulation 2017.
- Five mines introduced additional gas monitoring in the longwall tailgate.
- The additional monitor was at a distance of not greater than 400 metres outbye of the longwall face. The monitor was interlocked to the longwall shearer so that it automatically tripped electric power to the shearer when the methane reached a certain level determined by a TARP but not greater than 2.5%.
- Some mines interlocked the methane monitor, located at the start of the longwall block in the return ventilation split, to the shearer. This monitor tripped power to the shearer when the methane concentration in the longwall return ventilation split reached a certain level determined by a TARP but not greater than 2.5%.
- Two mines reduced the trip level for power to the shearer to 2%. This significantly reduced the number of trips due to exceeding 2.5% methane in the tailgate.
- Mine sites failed to report an HPI when the tailgate monitor detected a general body methane concentration of 2.5%. Mines have started to understand that this is an HPI.
- The risk associated with an increase in methane concentrations in the longwall tailgate had not been adequately assessed by the mines.

  The initial approach was that mines did not consider the methane in the longwall tailgate return roadway made it a dangerous place according to the relevant legislation. There was discussion on whether this should be considered an HPI as there are no people present in the tailgate during production, however, further analysis of the hazard has highlighted the scenarios that a dangerous place is potentially present, and also that explosive mixtures of methane could be present.

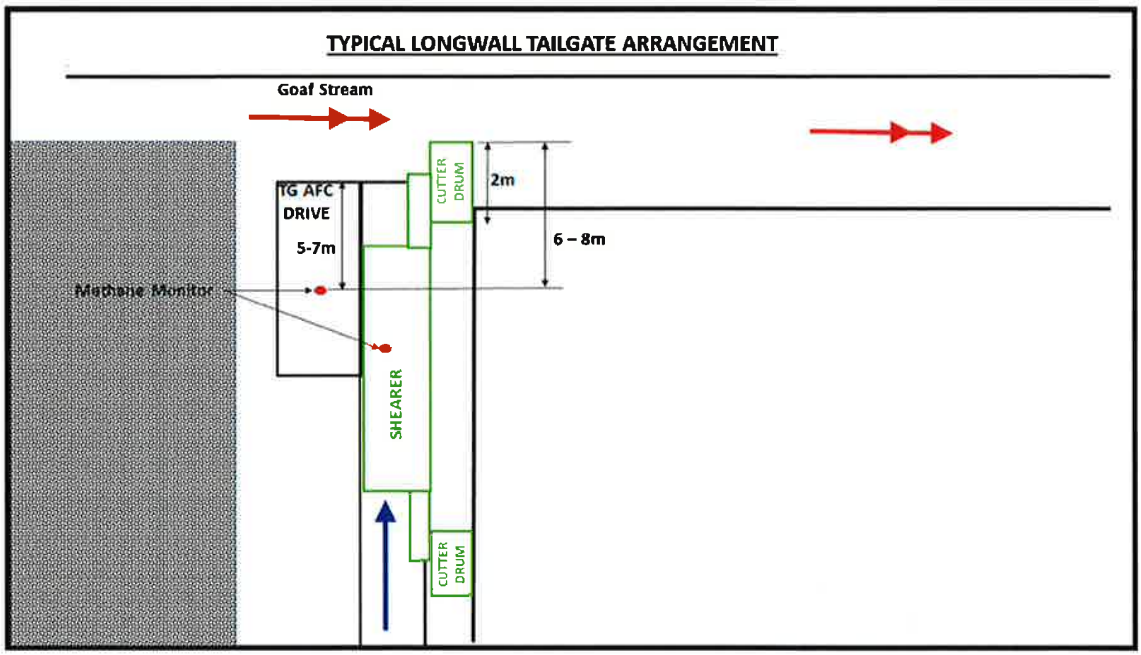
MODELLING OF METHANE CONCENTRATION

On numerous occasions around the world methane has ignited when the shearer has been cutting into the tailgate. This occurred in the 2010 Upper Big Branch mining disaster resulting in a methane and coal dust explosion which killed 29 coal mine workers.

The increase in the general body concentrations in the longwall tailgate increases the risk profile of longwall operations. The following modelling has been undertaken to evaluate the risk.

Figure 2 shows a sketch of a typical layout at the tailgate end of a longwall face.

FIGURE 2: TYPICAL LONGWALL TAILGATE ARRANGEMENT

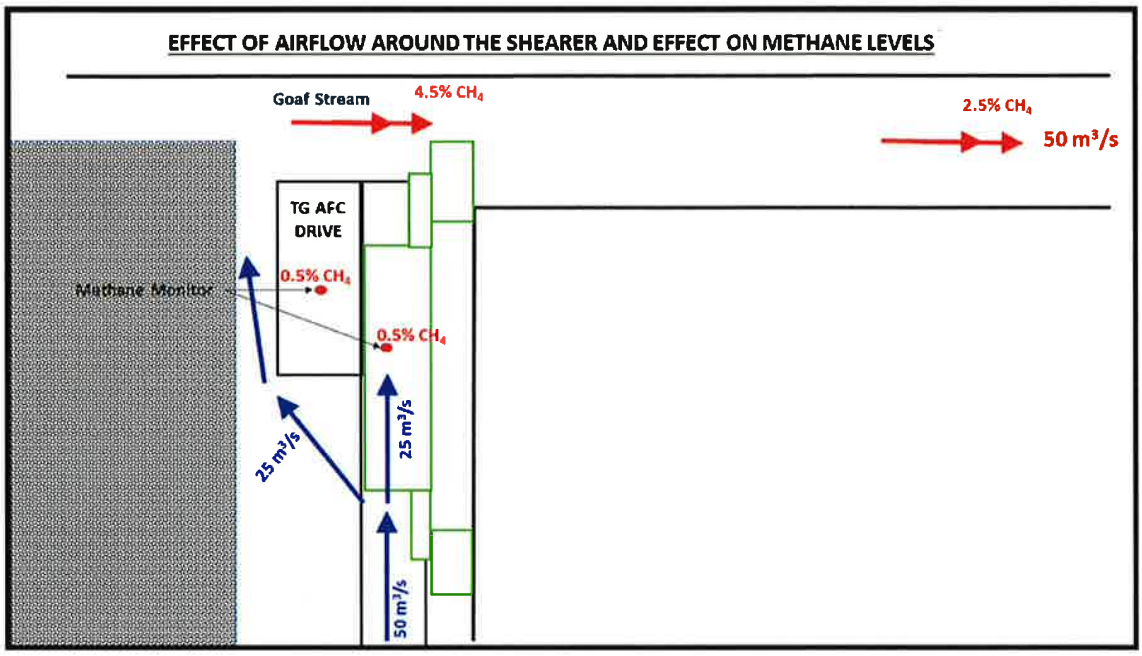


The methane monitor required by section 244(1)(b) of the Coal Mining Safety and Health Regulation 2017 at the intersection of the longwall face and return roadway, is fitted near the tailgate armoured flexible conveyor (TG AFC) motor under the carport (a protective canopy around the TG AFC motor and gearbox). Figure 2 shows that the TG AFC monitor can be up to 8.0 metres away from the cutter picks at the TG side of the cutting drum.

Due to obstruction by the body of the shearer, air is deflected around the shearer and behind the shields, flushing out goaf gases. This has been seen on coal mines gas monitoring systems with a gradual increase in methane levels at the TG end as the shearer progresses towards the tailgate. If the shearer is left at the TG end, the methane levels settle back down to more ambient conditions as equilibrium with the goaf gases is reached.

Figure 3 shows the possible ventilation arrangement when the shearer is in the TG end of the face with a total face ventilation quantity of 50 m³/s. Monitoring results from mines show that, when high levels of methane are present in the tailgate, the TG drive monitor may remain at around 0.5%.

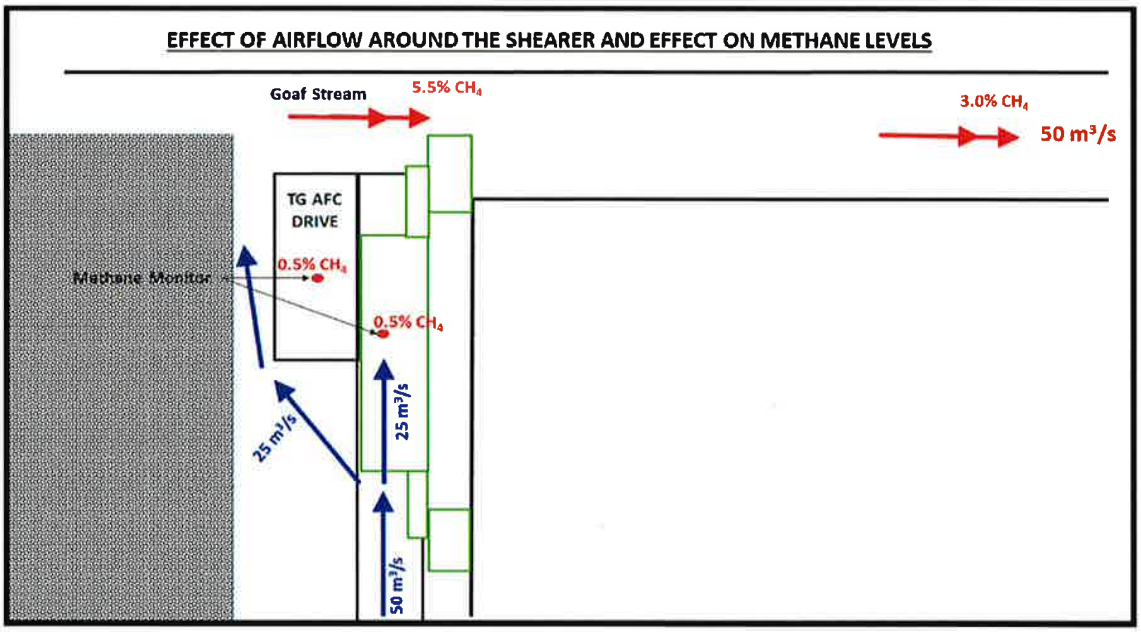
FIGURE 3: LONGWALL TAILGATE VENTILATION ARRANGEMENT



Modelling shows that if there is a 2.5% general body concentration of methane in the longwall tailgate roadway then there could be an **average** of 4.5% methane in the airway adjacent to the longwall face of the tailgate operations. The gas distribution in this area is not homogenous and there is usually a part of this area where the true 'goaf stream' exists (usually evident by increased temperature and humidity and high methane levels associated with lower oxygen levels).

Figure 4 shows the difference in the above situation when there is 3.0% methane general body concentration in the tailgate roadway.

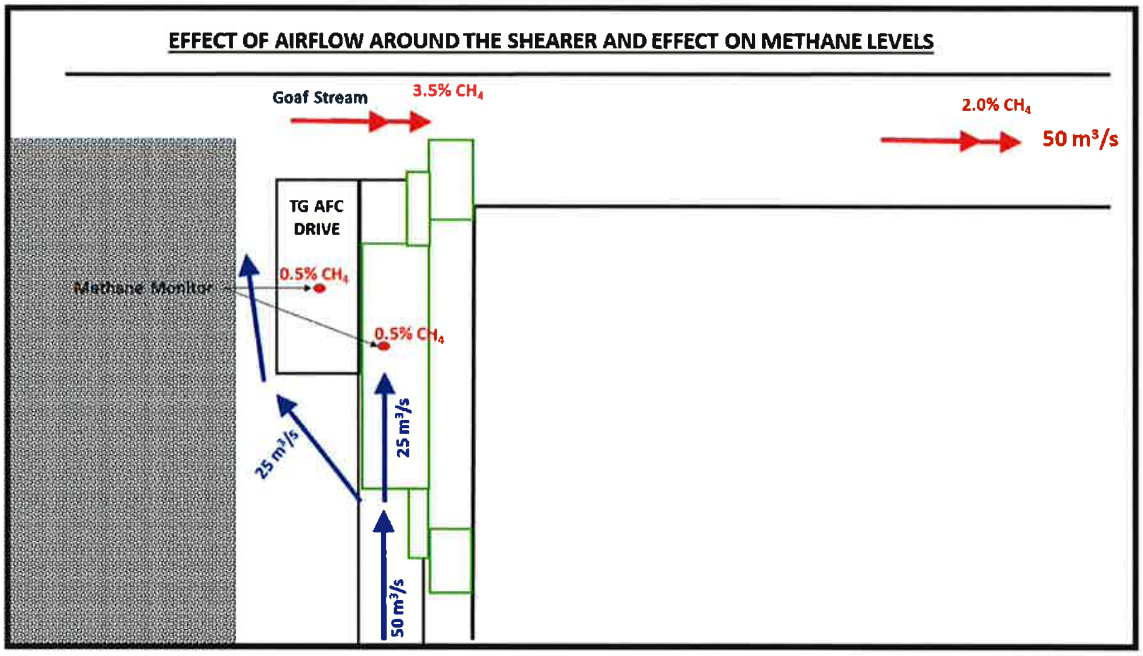
FIGURE 4: LONGWALL TAILGATE VENTILATION ARRANGEMENT 3.0% METHANE IN TG



As can be seen, the presence outbye of a 3.0% general body methane concentration in the longwall tailgate roadway means that the **average** methane concentration in the airway adjacent to the longwall face of the tailgate operations could be as high as **5.5%**. As this is not homogenous, parts of this roadway will have a methane concentration below 5% while in other parts the methane concentration could be well above 5%. Methane is explosive between 5 and 15%.

As can be seen from Figure 5, when there is a methane concentration of 2.0% in the longwall face of the tailgate roadway, the average methane concentration in the airway adjacent to the longwall tailgate operations drops to 3.5% which is below the explosive limit.

FIGURE 5: LONGWALL TAILGATE VENTILATION ARRANGEMENT 2.0% METHANE IN TG



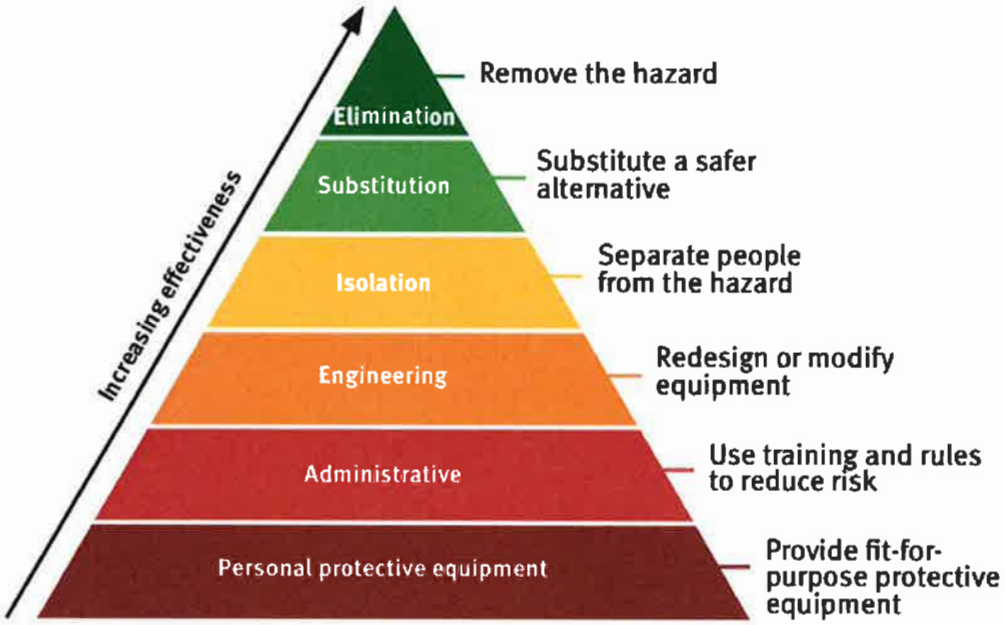
There will be operational differences in the layouts shown above when, for example, due to creep or the alignment of the maingate (MG) and TG roadways, the tailgate end of the AFC could be significantly closer to the chain pillar rib line.

The position of the shearer when cutting into the tailgate is potentially the location of the highest risk of an ignition of methane in the longwall. There could be sparks from the shearer picks contacting any steel or incendive material, such as steel pipes or pipe hangers left in the goaf area as the longwall retreats. There is also the risk of tramp steel left in the tailgate area from secondary support operations or other work previously conducted in the TG roadway.

The most recent ignition in a longwall in Queensland occurred when the shearer was in the position similar to that shown in Figure 2. However, at the time of the incident the shearer drums were not operating and the ignition source most likely occurred at the tailgate AFC where the chain contacts the strippers as it comes over the sprocket.

HIERARCHY OF CONTROLS

The hierarchy of controls model should be used in the risk management process. Measures towards the top of the pyramid are the most effective and provide the highest level of protection.



BEST PRACTICE AND RECOMMENDATIONS

The relevant standard[1] and legislation[2] must be complied as a minimum, however, in addition, operations using the hierarchy of controls should consider the following.

Engineering controls	❖ Consider including additional mining engineering controls to reduce the potential reservoir of methane in the longwall goaf or in the underlying and overlying seams e.g. pre-drainage and/or goaf drainage
Trigger action response plans	❖ Consider the modelling of methane concentrations described in this document which shows that, in a typical layout, a methane concentration of 2.5% in the longwall tailgate roadway will result in a dangerous level of methane in the airway adjacent to longwall tailgate operations. ❖ Consider introducing additional gas monitoring in the longwall tailgate, within 400 metres outbye of the longwall face interlocked to the longwall shearer so that it automatically trips power to the shearer and the AFC when the methane concentration reaches 2.0%. ❖ Consider interlocking the gas monitor at the return of the ventilation split to the longwall shearer so that it automatically trips power to the shearer and the AFC when the methane concentration reaches 2.0%. ❖ Consider the impacts of lag times and calibration tolerances that can affect the accuracy and trip time for any methane monitors. ❖ Consider ventilation velocity and impacts from adjacent goaf and rib emissions with different concentrations for inbye and outbye sensors. ❖ The gas monitoring system must be capable of recognising static data issues and raising an alarm.
Gas monitoring system	❖ Underground gas monitoring system data should be readily available at all times in a format that is recoverable to demonstrate continuous monitoring of the mine atmosphere has been undertaken to ensure dangerous conditions are not present.

[1] Australian and New Zealand standard, AS/NZS 2290.3:2018, *Electrical equipment for coal mines – Introduction, inspection and maintenance, Part 3: Gas detecting and monitoring equipment*

[2] *Coal Mine Safety and Health Act 1999* and Coal Mining Safety and Health Regulation 2017

Tube bundle detectors

- Due to the inherent lag time, these systems can only be used to verify normal background levels and should not be used for identifying peak levels.
- Where possible the tubes should be run in return roadways to reduce condensation which can lead to accumulations of water blocking the tube. Suitably placed self-draining water traps need to be placed to remove these accumulations.

Real time and transportable detectors

- Real time detectors should be installed on a suitable plate and hanger with the wire harness clamped to the plate to prevent movement.
- The detector should be mounted on the downstream side to prevent ingress of dirt and moisture.
- The detector should be at a height and position in the roadway that enables it to adequately measure the gas of interest. Blockages of the gas path can lead to serious issues with the T_{90}* response time of the detector. In roadways with high velocities and total mixing this may not be an issue. Installation standards need to be developed that cover the purpose of the gas monitoring required.
- Access to the detector will be required for maintenance purposes. The installation should be designed to allow easy access for calibration and detector change out. Where easy access is not possible a suitable means of access to the detector needs to be available (i.e. portable work platform, not a ladder).

** The time it takes for a detector to register 90% of the change in gas levels*

Maintenance of detectors

- Maintenance of detectors should be in accordance with original equipment manufacturers (OEM) procedures and the relevant standard.