

Model Work Health and Safety Regulations for Mining - Public Comment Response Form

Individual/Organisational name: Emma Brinkman	
Regulations Chapter 9: Mines	
Part 9.1	
Regulation	Comment
9.1.4(1)(a)	<p>In regards to this subsection there are three areas which raise concern: the use of the word “could”; who is responsible for identifying the principal mining hazards in this sub-regulation; and the highlighting of some hazards and others being potentially ignored.</p> <p>The seriousness of the phrase <i>principal mining hazard</i> is somewhat let down by the weak use of the word “could”. The use of this word, I believe to be at too low of a level to make a serious impact on the way the regulations are followed as many may be inclined to read the regulation as something similar to ‘there must be a reasonable chance’. I suggest changing this wording to “...have any potential of creating a risk...” to ensure the gravity of this definition is properly conveyed.</p> <p>Secondly, I wish to raise the question of who is responsible for identifying these principal mining hazards. Although it can be seen in regulation 9.4.1(a) that workers must be able to contribute to the identification of principal mining hazards, I have not clearly been able to identify who this responsibility lies with. While it may be implied that the responsibility lies with the mine operator, I am of the firm belief that it should be the responsibility of every worker to assist in the identification of these hazards, not just an option for workers.</p> <p>Thirdly, although it can be seen that a ‘catch-all’ sub-regulation has been placed in this regulation in 9.1.4(1)(b), the list from (i) to (vii) of highlighted areas in which principal mining hazards may be identified within appears to limit the scope of where principal mining hazards may be found and recognized. This list of areas appears to only cover physical attributes of the mine site itself. I propose that an additional area concerning the human worker be added so that hazards of mental health and fatigue do not fall by the wayside. I believe this is an incredibly important area to include as there have been recurring incidents that are well documented in the media in which fatalities have been a result of, or in part contributed, to worker fatigue¹. Ensuring that this area is highlighted to mine operators as an area where there is potential principal mining hazards will be a strong step towards mitigating the risks of hazards that occur within the worker as a result of their work and work environment.</p>

¹ Mining Australia, *Dealing with Driver Fatigue* (2008) Mining Australia <http://www.miningaustralia.com.au/news/dealing-with-driver-fatigue> at 12 August 2011; Megan Lewis and Paul Robinson, *Mine industry making ‘progress’ to cut fatigue* (2011) <http://www.abc.net.au/news/2011-02-24/mine-industry-making-progress-to-cut-fatigue/1955468> at 12 August 2011; Sigrid Brown and Stephanie Fitzpatrick, *Mine production resumes after fatigue dispute* (2010) <http://www.abc.net.au/news/2010-02-23/mine-production-resumes-after-fatigue-dispute/340460> at 12 August 2011

Addition	The mining industry has become increasingly reliant on contract workers over the past years and I believe it would be wise to make an additional regulation in the mining regulations that emphasises that the term ‘workers’ includes contractors and subcontractors as it is set out in the model WHS Act.
Part 9.2	
Regulation	Comment
9.2.1	<p>The main question that arises in this regulation is the use of ‘so far as is reasonably practicable’ (SFAIRP) as opposed to a much higher standard of ‘ensuring’ all hazards are identified. Although SFAIRP is a commonly accepted OHS term², the question must be asked, why should a reduced responsibility in regard to identifying hazards be endorsed. By increasing the minimum standard that is legally acceptable for mine operators to identify hazards, it can only be of benefit to the industry as a whole. By the same token, there is no direct cost in ensuring that all hazards are identified as opposed to in SFAIRP where the cost of identification could be proven to grossly outweigh the benefit of this identification in order to escape liability.</p> <p>In regards to liability falling back onto the mine operator should they not identify all hazards, the hazard must have been reasonably foreseeable³ which gives some relief to the mine operator and the company.</p> <p>In the alternative, using SFAIRP as opposed to ‘as low as reasonably practicable’ (ALARP) is questionable. Although these terms essentially mean the same thing⁴, the term ALARP is appearing more in recent Australian legislation having been adopted within the guidance note provided by the National Offshore Petroleum Safety Authority (NOPSA)⁵. In addition, the term ALARP is commonly referenced to in the rail industry and is common in the United Kingdom⁶. The endorsement of this term within an industry with comparable risks, that is offshore petroleum and to an extent rail, should give rise to the use of the same term when attempting to harmonise work health and safety laws.</p>

² Health and Safety Executive, *ALARP “at a glance”* (unknown) Health and Safety Executive <http://www.hse.gov.uk/risk/theory/alarpglance.htm> at 15 August 2011.

³ *Draft model WHS Regulations for Mines* (2011) regulation 9.2.1

⁴ Health and Safety Executive, *ALARP “at a glance”* (unknown) Health and Safety Executive <http://www.hse.gov.uk/risk/theory/alarpglance.htm> at 15 August 2011.

⁵ National Offshore Petroleum Safety Authority (NOPSA), *ALARP (As Low As Reasonably Practicable)* (2011) NOPSA <http://www.nopsa.gov.au/projects/safetycaseguidance/alarp.asp> at 15 August 2011.

⁶ National Transport Commission Australia (NTC), Discussion Paper (2005) NTC <http://www.ntc.gov.au/filemedia/reports/riskmngmtmodelrailsafmssoct05.pdf> at 15 August 2011; Health and Safety Executive, Assessing compliance with the law in individual cases and the use of good practice (unknown) Health and Safety Executive <http://www.hse.gov.uk/risk/theory/alarp2.htm> at 15 August 2011.

9.2.2	<p>Two key issues are raised in this regulation. First, is the limitation of only the mine operator being legislatively required to assess risks associated with all hazards. As highlighted in comments made in regard to regulation 9.1.4, I believe that it is the responsibility of all workers to assess risks associated with known hazards for their own safety. Allowing workers to simply ‘pass the buck’ when it comes to assessing the risk associated with previously identified hazards could encourage workers to cease actively looking after their own and others welfare⁷.</p> <p>Secondly, although in the model Code of Practice on How to Manage Work Health and Safety Risks there is guidance on how to perform a risk assessment, it would be of great benefit to have an industry standard risk assessment tool that is specific to mining. A risk assessment tool such as this would allow for prompts of specific risks that occur in a mining environment and could be used as a minimum risk assessment standard that individual mines could use or improve on. This may be more applicable in the mining Codes of Practice.</p>
9.2.3(1)	<p>Here I suggest that SFAIRP (or rather as suggested above, ALARP) be used rather than just reasonably practicable. This will emphasise preferred option of managing risk to be elimination, as the mine operator must reach the outer limit what is reasonably practicable to eliminate the hazard prior to looking at alternatives⁸.</p>
9.2.3(2), (3) and (4)	<p>Within these sub-regulations, a hierarchy of control should be implemented rather than allowing the mine operator to select which control in 9.2.3(2) and then move on (3) and (4). Although it is seen that there has been effort made to create a partial hierarchy, real benefit will be seen if all controls were required to be explored in order from most effective (elimination) to least effective (personal protective equipment (PPE))⁹. It is common practice to suggest that substitution, be the first alternative to elimination, then isolation, then engineering controls, then administration, and finally PPE¹⁰.</p> <p>Through the inclusion of a hierarchy of control that mine operators would be required to exhaust the most effective controls first before moving onto less effective controls.</p> <p>It should be noted that within this section, there should also be a change from ‘reasonably practicable’ to SFAIRP or ALARP to ensure that the practicability of each option is exhausted prior to looking at the next control.</p>
9.2.4(1)	<p>In regard to (c), the question of how often and who by the audits of performance standards are carried out needs to be dealt with. This question is partially addressed in regulation 9.2.7 where the WHS management system must include a system for auditing, however it does</p>

⁷ Neil Gunningham, *Mine Safety: Law, Regulation, Policy* (2007) 199.

⁸ Health and Safety Executive, Assessing compliance with the law in individual cases and the use of good practice (unknown) Health and Safety Executive <http://www.hse.gov.uk/risk/theory/alarp2.htm> at 15 August 2011.

⁹ Work Cover New South Wales, *Hierarchy of Controls* (unknown) New South Wales Government http://www.workcover.nsw.gov.au/formspublications/publications/Documents/yw_heirarchy_controls_2089.pdf at 15 August 2011.

¹⁰ Ibid.

	not explicitly state how often performance standards audits must occur or who performs them.
9.2.4(3)	In this regulation, it is concerning that a limit has been placed on what may be requested for review in regard to risk control measures. In addition, there is no guidance on what should occur when the reason for review is due to a dispute in whether the mine operator has adequately reviewed the circumstance in question. It is recommended that an addition sub-regulation be added to allow for health and safety representatives to request a review of risk control measures in circumstances outside these limitations.
9.2.5	<p>Although in regulation 9.2.42 there is the requirement for workers to be informed of the WHS management system, it can be seen that the WHS management system should be designed for the mine operator exclusively. This creates confusion about whether workers should also be using the WHS management system as a means to ensure their own and others health and safety. It is recommended that regulation 9.2.5(2) is amended to have workers use the WHS management system in the same way as the mine operator.</p> <p>Additionally, it is recommended that an additional sub-regulation be added to ensure that the WHS management system is established and changes made with consultation from the regulator, in addition to workers as per section 49 of the model WHS Act¹¹. This recommendation is made to further emphasise the importance of collaboration with parties that are both independent and working within the mine¹².</p>
9.2.6(2)	Here it is of great concern that there appears to be a lack of specifics in the minimum level of detail required in the WHS management system. The WHS management system is one that all workers have access to, and make reference to regarding their own general work health and safety. It is because of this that the level of detail must be at a standard that a person with limited to no mining experience would understand, while at the same time, being comprehensive enough to ensure that important details are not excluded. In regard to this, it is suggested that an additional relevant matter is added to incorporate the requirement for the mine operator to give regard to what skill level and experience the readers of the WHS management system are. This will ensure that the WHS management system will be able to be comprehended by the least skilled and experienced person on site, as well as the most, to allow for the optimum operation of the WHS management system.

¹¹ *Model WHS Act 2011* s49.

¹² Neil Gunningham, *Mine Safety: Law, Regulation, Policy* (2007) Chapter 9.

9.2.7	The main concern in this regulation is the system of auditing. It is strongly recommended that the audits be performed by an independent third party (e.g. the regulator), however at the very least should be performed by or with consultation with the health and safety representative ¹³ . Including this additional requirement would ensure the transparency of the audit system and avoid potential disputes concerning audits.
9.2.10	<p>In regard to 9.2.10(2)(b), there is a question on whether reference should be made to persons who use it, or whether the term workers is more appropriate. In one regard, only those who are within the realm of the hazard will need to use and have the plans readily available, but in the alternative, in the interests of increasing the level of safety, all workers should have ready access and be able to comprehend the detail of the plan. As such, it is recommended that this wording be changed to workers as it is clearer as to whom it covers and to what level the plan must be comprehended by, to be better able to meet this requirement.</p> <p>Thought should also be given here in regard to contingency plans for what should happen if a plan regarding a principal mining hazard fails or other circumstances prohibit the plan from working as planned. It is appreciated the difficulty that is faced when planning for the unknown, however it is recommended that a sub-regulation be added to ensure that an experienced and skilled group of people, are able to come together as an emergency planning team, in order to consult together to determine how to best approach a situation that may arise should plans fail. A group such as such as the mine operator, health and safety representatives and the regulator would allow for a breadth of experience and knowhow to ensure that an appropriate response plan is formulated efficiently and comprehensively¹⁴.</p>
9.2.13	The issue of communication, especially in regard to outgoing and incoming shift supervisors, is one of great importance ¹⁵ . I am of the strong opinion that although the mine operator should be ensuring that an appropriate system is put in place, further responsibility should be placed on the shift supervisor. This responsibility should include the requirement to ensure that all issues, complaints, and reasonably foreseeable risks that the supervisor is or should be reasonably aware of, are provided in a comprehensive written report to the incoming shift supervisor in addition to verbal communication of these areas. This will ensure that communication break down between shift supervisors is mitigated while fatigue and a desire to get home sets in for the outgoing supervisor. In addition to this additional requirement, a copy of the written report should be given to the mine operator as an additional measure for ensuring communication of potential risks and hazards.
9.2.32	<p>Regarding the emergency planning, it is appropriate to have this regulation remain open to mine operators in regard to specifics in how to react to an emergency in order to allow for broad coverage for many applications.</p> <p>Concerning sub-regulation 9.2.32(3)(iii) however, it would be recommended to prescribe a ratio of available persons training in the use of</p>

¹³ Ibid 196.

¹⁴ Neil Gunningham, *Mine Safety: Law, Regulation, Policy* (2007) 199.

¹⁵ Health and Safety Executive (HSE), *Effective Shift Handover – A Literature Review* (1996) HSE <http://www.hse.gov.uk/research/otopdf/1996/oto96003.pdf> at 18 August 2011.

	rescue equipment. A suggested ratio is that recommended by the Workplace Safety North in northern Ontario, Canada is 1:5 trained personnel to underground employees ¹⁶ . Enforcing a strict ratio ensures that each mine has a bare minimum of trained rescue personnel rather than leaving it open to interpretation what is considered adequate.
Part 9.7	
Regulation	Comment
9.7.1	<p>In regard to what is included in the mine record, it is suggested that for the advantage of retaining corporate memory, it would be of benefit to include also the WHS management plan and any subsequent amendments in addition to the emergency plan. This would ensure that there are accurate records kept for future stakeholders in the mine and mining industry¹⁷.</p> <p>Concerning how these records are kept, consideration should be given to the fact that these records can, and in most cases should, be kept electronically. This mitigates the risk of damage or loss as records could be kept on a company network. If all records are stored electronically, there should not be a limit to how long they are required to be kept as no consideration needs to be given to storage space or upkeep. Additionally, after the year limit is reached, the records should be passed on to the national archives as digital (or otherwise) records¹⁸. Should this be placed in the regulations, details of the requirement to comply with record keeping standards should also be included¹⁹.</p>
Schedule 9.1	
Regulation	Comment

¹⁶ Workplace Safety North, *Mutual Aid Agreements* (2010) Workplace Safety North http://www.masha.on.ca/mine_rescue/documents/H&S_Report_%20Mutual_Aid_Agreements.pdf at 18th August 2011.

¹⁷ X Hill, *Preventing Fatalities Arising from Corporate Memory Loss within the Resources Sector* (2010) AusIMM <http://www.ausimm.com.au/publications/epublication.aspx?ID=5669> at 18th August 2011; JBT, *The Importance of Corporate Memory* (unknown) Mining and the Environment <http://www.miningandtheenvironment.com/images/data/160/Corporate%20memory.pdf> at 18 August 2011.

¹⁸ National Archives of Australia, *Digital Recordkeeping: Guidelines for Creating, Managing and Preserving Digital Records* (2007) National Archives of Australia <http://naa.gov.au/records-management/publications/Digital-recordkeeping-guidelines.aspx> at 18th August 2011.

¹⁹ National Archives of Australia, *Ensuring your records remain authentic, reliable and useable* (2007) National Archives of Australia <http://naa.gov.au/records-management/create-capture-describe/capture/index.aspx> at 18th August 2011.

Addition	In conjunction with previous comments, I believe that initially the WHS management system and emergency plan, and any subsequent changes made to them, should be included in the mine quarterly report that is then submitted to the regulator. This will not only ensure that the regulator is involved in the process of creating and amending the WHS management system and emergency plan, but that there is a centralised record of how different mines approach risk management and emergency planning. This will allow for sound record keeping, in addition to comparison ease for the regulator.
Other Comments	
<p>Overall, I feel that the mining regulations cover the majority of areas satisfactorily; however there are some areas which have not had as much emphasis as would be hoped. These areas are:</p> <ul style="list-style-type: none"> • Worker involvement and responsibility <p>After reading the WHS regulations for mining, it is very clear that the vast majority of responsibility and liability falls onto the mine operator. Although I agree that it is core to the role of mine operator to ensure the health and safety of the mine workers, however I also strongly feel that a more collaborative approach would be of use in the creation of WHS management systems and emergency plans. In addition to this, I feel that by placing nearly all liability back onto the mine operator relieves the worker of their own health and safety responsibilities to much. So much so, that it may lead to worker laziness and a lack of active the pursuit of a safe work environment, as the blame is not on the individual who had the potential to recognise a hazard or risk.</p> <ul style="list-style-type: none"> • Limiting areas where responsibility of the company can be removed <p>In saying that worker involvement and responsibility should have a higher focus, the opportunity for the mine operator and the company to do away with their responsibility to ensure the health and safety of their workers must be removed as much as possible. One of the core objectives of the WHS harmonisation laws is the development of effective safety standards and protections²⁰. If companies and mine operators are able to sidestep their responsibility through technicalities, this does not assist in achieving this objective.</p> <ul style="list-style-type: none"> • The limited focus on fatigue and mental health as principal hazards <p>As stated in my comment on principal hazards, it was interesting to see that the potential areas for principal hazards that were highlighted were purely concerned with the physical attributes of the mine. Although it is noted there is a ‘catch-all’ provision, the value of highlighting fatigue and mental health as potential areas for principal hazards should not go unwarranted.</p> <ul style="list-style-type: none"> • The involvement of the regulator <p>Ensuring that the regulator is involved on a base level in the creation and upkeep of WHS management systems and plans, allows for effective utilisation of the regulators resources in ensuring compliance. Working collaboratively to ensure that effective systems are put in place at the outset, allows for streamlined checks in the future to confirm the implementation of these systems. In addition, the use of the regulator as an independent third party in the creation of WHS management systems, aides the company to be in no doubt of their compliance in regards to the content of their systems.</p>	

²⁰ *Intergovernmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety 2008* (All Jurisdictions).

- Importance of record keeping

Corporate memory is a greatly undervalued resource, and something which often is not well retained. Placing more value on what data is kept and how, will assist in appropriate collection of mining related information that can be utilised in the future. As the Issues Paper points out, mine WHS records will assist in predicting trends for the industry and enable clearer comparisons to overseas and other industries. In addition to the records outlined in the WHS mining regulations, I believe that it is important to also keep record of what plans and systems have been put in place for analysis and reference in the future so that in the ongoing process of optimising WHS laws we will be able to have a clear picture of what works and doesn't work.

In addition to these areas, taking lead from the issues paper in regard to risk-based approach to regulation, it seems more appropriate to follow Victoria when considering the inclusion of further provisions. By taking this route, the base level of regulations would be found here and then for more complex and higher risk mines, additional regulations would apply. This is opposed to allowing for smaller, less complex mining operations to have a differing standard to that of all other mines.

Should further provisions be seriously considered in either of these manners, it would be of great importance to prescribe what constitutes a more/less complex mine or what determines high/low risk operations. This would be to ensure that each mine site is aware of which category they sit in. In addition, should there be any confusion or if a mine site is on the border of high/low and the general category, it should become a requirement to apply the higher level of provisions.

Taking lead from page four of the Issues Paper, I believe it is also important to ask the question why there are some jurisdictions that are completely harmonising with the model WHS laws, and some are maintaining their own separate mining specific laws. After signing the intergovernmental agreement, it appears to go against the commitments made by that agreement by having separate industry WHS laws. Although it could be argued that the WHS requirements in mining is different in each jurisdiction/type of mine, this then begs the question, why are all jurisdictions not taken up to the highest level required by a single jurisdiction/mine type? It is agreed that the WHS harmonisation movement is a very positive step in the right direction to further minimise WHS incidents, it is interesting to see that the opportunity to ensure that all jurisdictions in Australia have the same standards of work health and safety is not fully being made use of.

The intergovernmental agreement states that all jurisdictions agreed to adopt and implement the model legislation in addition to committing to take all necessary steps to enact or otherwise give effect to the model. Allowing Queensland to maintain separate WHS laws for the coal mining industry and for Tasmania to see whether the model laws meet their needs after having implemented new laws this year, appears to go against what all jurisdictions made a commitment to. The core objective behind the harmonisation movement was to produce the optimal model for a national approach. Allowing non participation, or further additional individual jurisdiction laws does not “*enable the development of uniform, equitable and effective safety standards and protections for all Australian workers*”, but allows for what could be repeat jurisdictional division concerning WHS laws and standards. This could be remedied in a number of ways including the addition of specific regulations concerning particular types of mines (e.g. coal mines); the inclusion of particular regulations to further increase WHS standards to avoid additional individual jurisdiction regulations; and strictly enforcing the timeframe in which model WHS legislation (including regulations) must be enacted.

Codes of Practice	
Roads and Other Vehicle Operating Areas	
Section/page number	Comment
Managing Naturally Occurring Radioactive Materials in Mining	
Section/page number	Comment
The Mine Records	
Section/page number	Comment
WHS Management Systems in Mining	
Section/page number	Comment
Inundation and Inrush Hazard Management	
Section/page number	Comment
Emergency Response in Australian Mines	
Section/page number	Comment
Strata Control in Underground Coal Mines	
Section/page number	Comment
Ventilation of Underground Mines	
Section/page number	Comment

Survey and Drafting	Directions for Mine Surveyors
Section/page number	Comment
Health Monitoring	
Section/page number	Comment
Mine Closure	
Section/page number	Comment
Ground Control in Open Pit Mines	
Section/page number	Comment
Ground Control for Underground Mines	
Section/page number	Comment
Underground Winding Systems	
Section/page number	Comment