



Draft model Work Health and Safety Regulations and Codes of Practice for Mines Issues Paper



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safe work australia

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Draft model Work Health and Safety (WHS) Regulations and draft model Codes of Practice for Mines

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INTRODUCTION

HARMONISATION OF WORK HEALTH AND SAFETY LAWS

In July 2008, the Council of Australian Governments (COAG) formally committed to harmonising the occupational health and safety laws in Australia by signing the *Intergovernmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety* (IGA).

Under the IGA all states and territories and the Commonwealth have committed to work together to develop and implement model Work Health and Safety (WHS) laws and model Codes of Practice. The proposed model WHS laws are scheduled to commence in each jurisdiction on 1 January 2012.

Safe Work Australia is responsible for developing the model WHS laws under the IGA.

Safe Work Australia is an Australian Government statutory agency established in 2009 with the primary responsibility of improving work health and safety and workers' compensation arrangements across Australia. Safe Work Australia has tripartite representation, comprising 15 members, including an independent Chair, nine members representing the Commonwealth and each State and Territory, two representing the interests of workers, two representing the interests of employers and the Chief Executive Officer of Safe Work Australia.

The model WHS laws consist of:

- A model WHS Act which was developed following a comprehensive national review into work health and safety laws across Australia. The Workplace Relations Ministers' Council (WRMC) endorsed the model WHS Bill on 11 December 2009. The model WHS Bill is published on the Safe Work Australia website.
- Model WHS Regulations which were released for public comment on 7 December 2010 together with a consultation Regulatory Impact Statement (RIS) and a set of draft priority model Codes of Practice. The package did not include draft model mines regulations which were still under development at that time.
- Model Codes of Practice, some of which are yet to be released for public comment.

Safe Work Australia received 1343 submissions at the close of the public comment on 4 April 2011 and is currently revising the draft model WHS Regulations and priority draft model Codes of Practice.

NATIONAL MINE SAFETY FRAMEWORK

Safe Work Australia's work—insofar as it relates to mine health and safety—intersects with the National Mine Safety Framework (NMSF).

The NSMF is an initiative of the Ministerial Council formerly referred to as the Ministerial Council on Mineral and Petroleum Resources (MCMPR). This aims to establish a nationally consistent work health and safety regime in the mining industry without diminishing work health and safety (WHS) standards.

The NMSF Steering Group, established by the MCMPR in November 2005 with tripartite representation, has guided the development and implementation of the NMSF. The harmonisation of WHS laws and the NMSF make up two of the 21 reform initiatives under the COAG's National Partnership Agreement to Deliver a Seamless National Economy.

The policy underpinning the draft model mines regulations was developed by the National Mine Safety Framework (NMSF) Steering Group and endorsed by the MCMPR in May 2010.

The MCMPR also agreed to New South Wales, Queensland and Western Australia developing additional provisions that they considered were required to address high-risk

mining activities, such as underground coal mining. These additional provisions have been referred to as the 'non-core' package.

The intention of the MCMPR is to harmonise as far as possible with 'core' WHS laws on mining while allowing for supplementary 'non-core' provision to be made as appropriate. This hybrid approach largely reflects the current situation but is intended to ensure a greater degree of consistency across jurisdictions than is currently the case.

'NON-CORE' WHS LAWS FOR MINES

New South Wales, Queensland and Western Australia are working together to prepare 'non-core' WHS laws on mining outside the Safe Work Australia process.. It is anticipated that this co-operative process may be formalised by a 'non-core' Intergovernmental Agreement, which could be used to further promote consistency in this area.

At this stage it is anticipated that:

- Queensland and Western Australia—will maintain industry-specific WHS laws on mining comprising of: an Act and regulations generally based on the model WHS Act and WHS Regulations with additional elements drawn from the outcomes of the non-core legislative development process.
- New South Wales—will maintain the model WHS Act as the principal WHS Act but will also enact complementary and consistent industry-specific WHS laws on mining that also picks up the outcomes of the non-core legislative development process.
- Tasmania— will await the finalisation of the model WHS Regulations for mines to determine the extent to which they meet Tasmania's needs and whether or not further provisions will be required under additional mine safety laws. Tasmania commenced new mine safety laws in February 2011 to give effect to the recommendations made by two Coroners and a Legislative Council Select Committee regarding mine safety legislation. The Tasmanian Government is committed to both the adoption of the model WHS Regulations for mines, which have substantial similarities with the State's new laws, and the retention of requirements introduced in response to the above mentioned recommendations.

At this stage it is anticipated that Queensland will maintain consistent but separate WHS laws for the coal mining industry.

MINES AND THE MODEL WHS LAWS

You should read the draft model mines regulations together with the draft of the WHS Regulations that were released for public comment, and the accompanying mining Codes of Practice to fully understand their intended scope and operation.

Please note however that the draft model WHS Regulations and priority Codes of Practice are currently under review in light of public comment received by Safe Work Australia.

It is possible that some regulations affecting all workplaces may change, and if that is the case those changes would be expected to flow through to the proposed mines regulations.

In addition, for those seeking to make comment on these draft mines regulations it should be recognised that the majority of mining undertaken in Australia will be subject to additional legislation. The future WHS regime applying to mining in New South Wales, Queensland and Western Australia which accounts for over ninety five percent of mining activity in Australia, will have a range of additional ('non-core') legislative provisions for mine safety.

Issues currently under consideration for inclusion in the 'non-core' provisions include:

- requirements for the appointment of a site senior executives at every mine
- requirements for additional full-time or part-time statutory mine safety positions
- depending on the type of the mine and its associated hazards and risks

- arrangements to ensure consistent tri-state competency assessment and approval arrangements for key statutory positions
- principal control plans covering ventilation, electrical engineering, mechanical engineering, explosives and emergency response
- extending requirements for principal mining hazards to cover the risks of spontaneous combustion
- additional specific controls for certain hazards
- notification requirements in relation to prescribed high-risk mining activities, including information requirements and waiting periods before prescribed work may commence
- extended incident notification, investigation and protected information release provisions
- additional regulator enforcement powers similar to those that currently apply under mine health and safety laws
- provision for prescribed industry inspectors, for example district check inspectors, district worker representatives
- provision for ministerial appointment of Boards of Inquiry.

For further information on the content of the non-core legislative process and potential public consultation arrangements, please contact:

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CONSULTATION REGULATORY IMPACT STATEMENT (RIS)

COAG requires Ministerial Councils and national standard setting bodies to establish and maintain effective arrangements to maximise the efficiency of new and amended regulations and avoid unnecessary compliance costs and restrictions on competition. As part of this process Safe Work Australia commissioned:

- a consultation RIS for the draft model WHS Act and Regulations from Deloitte Access Economics, which was released as part of the earlier packages for public comment
- a decision-making RIS for the final model WHS Regulations, taking into account the consultation RIS and public comment
- a supplementary consultation RIS for the draft model mines regulations from Deloitte Access Economics. This will be released for public comment as soon as it becomes available.

WHAT IS THE PURPOSE OF THIS ISSUES PAPER?

The purpose of this issues paper is to provide the starting point for consultation on the draft model mines regulations for stakeholders and interested persons in all jurisdictions.

Section A of this issues paper provides an overview of the draft model WHS Mines Regulations.

Section B provides a brief description of the draft model Codes of Practice for mines released for comment and lists additional codes and guidance that are under development.

This paper also identifies a number of issues that have arisen while the draft model mines regulations were developed. You may wish to respond specifically to these issues although comment is invited on all aspects of the package released for public comment.

Your submission should wherever possible include evidence and examples to justify your position.

HOW CAN YOU CONTRIBUTE?

You can provide your comments as an individual or you may wish to contribute to a joint submission through your employer or union organisation, professional association, safety group or community forum.

A Public Comment Submission Cover Sheet and the Public Comment Response Form are provided for making written submissions. These are available at www.safeworkaustralia.gov.au

Closing dates:

- **9 September 2011** for written submissions on the **draft model Regulations**.
- **7 October 2011** for written submissions on the **draft model Codes of Practice**.

It is preferred that submissions are typed and submitted electronically. Please contact Safe Work Australia if you wish to submit hand written submissions on (02) 6121 5317 or via email mining@safeworkaustralia.gov.au

When your submission is received by Safe Work Australia, you will be sent a receipt of confirmation. All submissions will be made accessible to the public on the Safe Work Australia website. Any information that you do not wish to be made available to the public should be clearly marked 'IN CONFIDENCE'.

WHAT HAPPENS AFTER THE PUBLIC COMMENT PERIOD CLOSES?

Safe Work Australia will analyse all written submissions that are received during the public comment period.

Safe Work Australia will then review and as necessary revise the draft model mines regulations in consultation with the NMSF Steering Group in response to public comment received.

The revised mining regulations will then be considered by the Select Council on Workplace Regulations (SCWR)—formerly WRMC—for adoption as part of the model WHS laws.

Additional model Codes of Practice and other guidance material will be developed progressively to support the model WHS Regulations including the mining regulations . Compliance and enforcement protocols are also being developed to underpin nationally consistent regulatory approaches.

SECTION A: MINES REGULATIONS OVERVIEW AND ISSUES

OUTLINE

The draft model mines regulations place the primary duties under the regulations on mine operators. A mine operator is the person conducting the business or undertaking (PCBU) with management or control of the mine.

Mine operators and other PCBUs at mines also have other duties under the WHS Act and Regulations, so these draft regulations should be read together with the model WHS Act and Regulations and supporting Codes of Practice, which are available on the Safe Work Australia website.

Note however that the draft model WHS Regulations and supporting draft model Codes of Practice are currently under review by Safe Work Australia and may be revised in light of public comment.

The draft model mines regulations provide for:

- the appointment of ‘mine operators’
- general risk management
- WHS management systems for mines
- principal mining hazard management plans for ‘principal mining hazards’ at mines
- emergency response plans
- management of ‘fitness for work’ issues
- health monitoring of workers at mines
- specific consultation provisions
- general provisions around information, instruction and training for workers and others
- data collection on certain work health and safety matters—see below for more information about this, and
- mine survey plans and mine records.

GETTING THE BALANCE RIGHT

The main object of the proposed model WHS Act and Regulations is to provide for balanced and nationally consistent laws to secure the health and safety of workers and workplaces. The draft model WHS Regulations have been developed to complement and support the general duties under the model WHS Act.

It is important to ensure that the model WHS Regulations strike the right balance between providing the requirements that are necessary to maximise work health and safety outcomes without being overly prescriptive.

Among other things consideration should be given as to whether the draft mining regulation strike the right balance. For example consideration could be given as to whether:

- the proposed regulatory approach maximises work health and safety outcomes for workers and PCBUs
- risk and outcomes-based regulations provide sufficient guidance for workers and PCBUs involved in the mining industry, particularly those involved in very hazardous mining, noting the intention is for further guidance to be provided in model Codes of Practice
- the regulatory ‘split’ between the proposed draft model mines regulations and draft Codes of Practice is appropriate, for example whether the inclusion of the material in

Schedule 9.4 to the draft model mines regulations is supported, having regard to the scope of the material included in the relevant codes of practice

- further well-understood and widely accepted specific controls should be prescribed to set minimum standards for dealing with particular hazards
- duties have been qualified appropriately, having regard to the nature of the duties and any other relevant factors
- there is any unnecessary regulatory overlap between different parts of the WHS Regulations, for example draft model mines regulations and major hazard facility (MHF) regulations
- proposed record keeping requirements appropriate.

SCOPE AND APPLICATION

The definitions of 'mine', 'mining operations' and mineral at regulations 9.1.1 – 9.1.3 largely determine the scope and application of the draft model mines regulations.

The jurisdictional notes attached to these provisions would allow flexibility for a jurisdiction to amend the model provisions:

- by defining the term 'mine' and 'mineral' by reference to pre-existing mines legislation
- by adding to the list of 'minerals' covered by the provisions, to allow for example onshore petroleum or carbon sequestration to be captured
- by clarifying the kinds of activities that are intended to be caught by the concept of 'mining operations'
- to clearly delineate between the jurisdictions of two or more WHS regulators in a jurisdiction.

For example, regulation 9.1.2(2) could be amended to clarify that certain processing or port facilities associated with a mine were captured as 'mining operations'.

The intention is to ensure that the application of work health and safety laws are clear, particularly in those jurisdictions that regulate work health and safety using two or more regulators.

Australia's offshore territories are proposed to be covered by the model WHS laws, except in relation to off-shore petroleum which is already covered by another scheme.

Application of draft mining laws to certain exploration activities

The draft model mines regulations cover certain extraction and exploration activities as 'mining operations' (regulation 9.1.2). In relation to the latter paragraph 9.1.2(1)(a) refers to 'exploring for minerals by mechanical means that disturb the ground'. This means for example that these activities would be covered by requirements for WHS management systems.

Further consideration should be given to the kind of exploration activities that should be captured by the proposed mines regulations, having regard to the nature and scope of duties to manage risks to health and safety under the regulations and also other legislative arrangements in relation to 'low-impact' exploration activities.

MANAGING RISKS

Draft regulations 9.2.1 – 9.2.4 deal with general risk management principles. These principles have been drafted consistently with the general approach taken under the draft model WHS Regulations.

In response to public comment on this approach it is likely that general risk management provisions will be co-located and included up-front in the model WHS Regulations rather than distributed throughout the Regulations for clarity, consistency and to avoid unnecessary duplication. Any changes to the general approach taken under the model WHS Regulations in this respect would be expected to flow through to the mining regulations.

WHS MANAGEMENT SYSTEM

Regulations 9.2.5 – 9.2.8 establish requirements for WHS management systems for mines.

Regulation 9.2.5(3)(a) provides that a WHS management system must provide a comprehensive and integrated system for the management of ‘all aspects of risk control in relation to the operation of the mine’. Regulation 9.2.6(1)(b) provides that the WHS management system must also ‘describe the systems and procedures and other risk control measures that will be used to control risks to health and safety associated with mining operations at the mine’. Regulation 9.2.6(1) goes on to list the kinds of things that are captured as part of the WHS management system, for example principal mining hazard management plans (PMHMPs) and emergency plans.

Read together these provisions place a general requirement on mine operators to implement and document measures to control risks associated with mining operations in a comprehensive and integrated way.

The intention is for relevant Codes of Practice to provide further clarity about the kinds of things that should be included and documented in WHS management systems. There is an argument however that further guidance can and should be provided in regulation 9.2.6. Further consideration could be given to the proposed content of WHS management systems and whether further details should be provided in regulation 9.2.6.

Risk-based approach to regulation

It is proposed that:

- requirements for WHS management systems would cover all mines including small opal mines and quarries, and
- exemptions be provided for under Part 10.3 of the draft model WHS Regulations.

Regulation 9.2.6(2) provides that in deciding the level of detail to be provided in the WHS management system the mine operator must have regard to all relevant matters including:

- the nature and complexity of the mining operations, and
- the risks associated with those operations.

This adopts a risk-based approach to regulation which focuses on the nature of the risks at a mine rather than the size of mining operations.

There is an argument that further provisions could be made to accommodate less complex mining operations. See for example regulation 5.3.3 of the *Occupational Health and Safety Regulations 2007* (Vic), which establishes a separate regulatory regime for ‘prescribed’, higher-risk mines including underground mines.

Another option would be to provide that the detail provided in a mine’s WHS management system must be commensurate with the size, nature and complexity of the mining operations.

Further consideration could be given on how to best maximise work health and safety outcomes (including workability of the proposed model mines regulations) in relation to all kinds of mining operations, including smaller mining operations.

GIVING INFORMATION TO THE REGULATOR

Incident notification requirements

In addition to incident notification requirements under Part 3 of the model WHS Act it is proposed that mine operators must:

- ensure that prescribed 'occupational diseases' are notified under Part 3 of the model WHS Act (further provisions would be drafted for this purposes)—further comment is sought on the kind of 'occupational diseases' that could be prescribed for this purpose
- ensure 'high potential incidents' are notified to the regulator (regulation 9.6.1), and
- report additional, prescribed work health and safety matters on a quarterly basis to the regulator (regulation 9.2.9, Schedule 9.1).

The intention in part is to enable collection of a dataset which has been endorsed by the MCMPR and COAG as set out in Attachment 1.

The mines-specific information collected by regulators would be collated and analysed nationally. It is envisaged that the resulting dataset would enable longer term work health and safety trends for the mining industry across Australia to be identified so that strategies to further enhance work health and safety performance in mines may be developed.

Comments on the data collection are sought.

PRINCIPAL MINING HAZARD MANAGEMENT PLANS

Specific risk controls—generally

Division 2 of Part 9.2 includes the requirements for principal mining hazard management plans (PMHMPs). Regulation 9.2.10(2) provides that a PMHMP must 'provide for the management of all aspects of risk control in relation to the relevant principal mining hazard'. Regulation 9.2.10(3)(d) requires the plan to 'specify all control measures to be implemented to control risks to health and safety associated with the principal mining hazard'.

In preparing a PMHMP in relation to a principal mining hazard it would be necessary for mine operators to:

- address and comply with any applicable specific risk control measure set out in Division 3 of Part 9.2 or elsewhere under the model WHS Regulations, and
- consider the matters set out in Schedule 9.2 that apply to the plan.

Further consideration could be given as to whether:

- the treatment of eight principal mining hazards at regulation 9.1.4(a) under Division 2 of Part 9.2 with additional detail at Schedule 9.2 and supporting guidance in relevant Codes of Practice is appropriate

See for example regulation 18 of the *Coal Mine Health and Safety Regulation 2006* (NSW) which deals with monitoring arrangements and more closely integrates planning with specific requirements under those regulations.

- detailed content requirements for PMHMPs should be prescribed in the mining regulation to provide further clarity about what the provisions in Division 2 of Part 9.2 require in practice, for example requirements for standard operating procedures or work instructions in certain circumstances, and
- additional specific control measures should be prescribed—based on the principle that where there is only one generally accepted method for controlling a hazard should be required in regulation otherwise multiple alternate control methods are covered in Codes of Practice.

See for example the approach to 'standard operating procedures' taken under the *Coal Mining Safety and Health Regulation 2001* (Qld).

Specific risk controls—air quality and air safety

A number of the draft model mines regulations provide for specific risk control measures around air quality and air safety including regulations 9.2.18 – 9.2.29. Additional requirements are included in the draft hazardous chemicals in Chapter 7 of the draft WHS Regulations, particularly the requirements in relation to airborne substances and mixtures including monitoring requirements.

The drafting at regulation 9.2.22(2) contemplates that further provision could be made in terms of minimum air quality and air safety standards. See for example:

- Coal Mine Health and Safety Regulation 2006 (NSW), regulations 13, 21
- Coal Mining Safety and Health Regulation 2001 (Qld), regulations 343, 359, 361(1) and Schedule 6.

The Queensland laws for example require a mine's ventilation system for an underground coal mine to be designed, implemented and monitored to ensure the atmosphere in each part of the mine has a general body concentration that is:

- for carbon dioxide or a prescribed contaminant—'as low as reasonably achievable' and within prescribed limits, which cover long-term exposure limits and maximum concentration limits; additional provision is made to prohibit working in poor quality air, as defined
- for oxygen—at least 19 per cent, and
- for methane—not more than 2.5 per cent.

Prescribed limits cover the following contaminants: acetaldehyde, carbon monoxide, formaldehyde, hydrogen sulphide, mineral oil mist, nitric oxide, nitrogen dioxide, nitrous oxide, sulphur dioxide, vegetable oil mist and welding fumes.

Further consideration could be given to whether this kind of scheme should be adopted under the draft model mines regulations, noting that further provision is intended to be made under the 'non-core' package referred to above.

Further consideration could also be given to whether any other further specific controls around air quality and air safety are required: see regulations 9.2.20(1) and 9.2.22(2). See for example the approach taken under the relevant Queensland laws.

Specific risk controls—hazards covered by other draft WHS Regulations

The general draft WHS Regulations already cover things like general workplace issues and certain hazards including electricity and naturally-occurring asbestos.

Further consideration could be given to these draft provisions to the mining industry and in particular whether further provision should be made to cover mining-specific issues.

Specific risk controls—emergency plans etc.

Division 4 of Part 9.2 of the draft model mines regulations covers emergency planning and should be read together with the general workplace requirements under Part 3.4 of the draft WHS Regulations.

These provisions have been drafted to ensure consistency with the approach taken to emergency planning elsewhere, including under the provisions dealing with major hazard facilities.

Further consideration could be given as to whether any further mining-specific provisions are needed.

Provision of self-contained self rescuers underground

Regulation 9.2.40(1) of the draft mining regulation requires mine operators of underground mines other than 'tourist mines' to ensure that a person who is to go underground is provided with a self-contained self rescuer. Consideration could be given to the scope of the proposed requirement, given that it is intended to apply to all underground mines other than 'tourist mines'. This would include for example small opal mines.

Specific risk controls—minimum age for workers underground

Consideration should be given as to whether the draft model mines regulations should prescribe a minimum age for workers to be able to carry out work underground.

Control Plans

Some control measures may be used to control risks associated with more than one hazard, for example:

- ventilation—may be used to control the risks of airborne contaminants, fire and explosion
- dust control measures
- mechanical engineering control measures—see for example regulation 13(1)(f) of the Coal Mine Health and Safety Regulation 2006 (NSW)
- electrical engineering control measures—see for example regulation 13(1)(e) of the Coal Mine Health and Safety Regulation 2006 (NSW).

It is possible for the proposed mines regulations to require all aspects of these controls to be dealt with in one place, for example a 'control plan'. A 'ventilation control plan' for example could be used to cover all aspects of ventilation at a mine, to ensure that a comprehensive, integrated approach is taken to the management of relevant risks to health and safety in mines. Other parts of the WHS management system could then cross-reference the 'ventilation control plan' as appropriate. Consideration could be given to providing for these kinds of control plans in the mining regulations.

An example of a 'control plan' requirement has been included at regulation 9.2.18 for comment.

Prohibited uses

Regulation 9.2.308 of the draft model mines regulations would establish a scheme of prohibitions in relation to the use of certain things and substances in underground mines.

It is envisaged that a Schedule would list these prohibitions. However comment is invited on the kinds of things and substances that should be prohibited underground, and for what kinds of uses. A Schedule is included for consideration at Attachment 2.

Exits from underground mines

Regulation 9.2.37 requires all underground mines to have at least one emergency exit in addition to the hoisting shaft and any other normal exit.

It also requires mine operators of underground coal and metalliferous mines to ensure that there are at least two such emergency exits.

This reflects relevant requirements in the International Labour Organization (ILO) Safety and Health in Mines Convention 1995 (ILO C176) which provides that employers 'wherever

practicable, provide, from every underground workplace, two exits, each of which is connected to separate means of egress to the surface’.

Further consideration could be given to the scope of the proposed requirement in regulations 9.2.37 – 9.2.41 having regard to these issues and possibly different requirements of mines in the initial stages of development.

FITNESS FOR WORK AND HEALTH MONITORING

Part 9.3 of the draft model mines regulations sets out requirements relating to fitness for work and health monitoring. The proposed WHS safety management system would also be required to deal with these issues under the proposed mines regulations.

Although covered by the general duties under the model WHS Act, fitness for work issues—other than health monitoring—are not specifically regulated under the draft WHS Regulations. However making special provision for fitness for work issues for the mining industry is the current position taken in most jurisdictions although approaches vary. See for example:

- *Coal Mine Health and Safety Regulation 2006* (NSW), regulation 148—see also general mines legislation for New South Wales
- *Occupational Health and Safety Regulation 2007* (Vic), regulations 5.3.12, 5.3.13, 5.3.25
- *Coal Mining Safety and Health Regulation 2001* (Qld), Division 1 of Part 6—see also the parent Act and general mines legislation for more
- *Mines Safety and Inspection Regulations 1995* (WA), regulation 4.7
- *Occupational Health, Safety and Welfare Regulations 2010* (SA), regulation 5(1)(c)
- *Workplace Health and Safety Regulations* (NT), regulation 152D.

Consideration should be given as to whether ‘fitness for work’ provision should be made in the proposed mines regulations, and if so details of the kind of provisions that are supported and why.

Drug and Alcohol testing at the workplace

Impairment-based approach to fitness for work issues

Fatigue, alcohol and other drugs are issues that bear directly on the fitness of a worker to carry their out work safely and without risks to their own health or that of others. However, the treatment of these issues has differed across the various jurisdictions with some matters being included in regulations, some in codes of practice and others in guidance material.

Regulation 9.3.2 of the draft model mines regulations requires mine operators to develop and implement strategies to protect persons at the mine from any risk to their health or safety arising from the consumption of alcohol or the use of drugs by any person.

It also requires the mine operator to ensure that a person whom the mine operator reasonably believes is adversely affected by alcohol or drugs, does not enter or remain at the mine.

Consultation requirements in relation to the development of this strategy are covered under the WHS Act and also regulation 9.4.2(e) of the draft model mines regulations.

There is a corresponding duty on workers at regulation 9.3.3 of the draft model mines regulations to not enter or remain at a mine if adversely affected by alcohol or drugs.

Taken together this regulatory approach is commonly referred to as an ‘impairment-based’ approach to minimising the risks associated with fitness for work, including risks associated with drug or alcohol consumption.

It relies on an exercise of judgment as to whether a person is 'adversely affected' to the extent they pose a risk to their own health or safety or others around them. Regulation 9.1.9 provides that a person is taken to be 'adversely affected by alcohol or drugs' if alcohol or drugs have caused the person's judgment or capacity to be impaired to the extent that the person may expose the person's or another person's health or safety to a risk.

The concept of 'adversely affected' relies on a person exercising their judgment in particular circumstances, so this approach may be criticised as being difficult to enforce in practice due to uncertainty.

Alcohol and drug testing approach

Alcohol testing at the workplace is relatively uncontroversial because testing methods and risks associated with alcohol consumption are proven, widely accepted and well understood.

Alcohol testing could form part of any strategy to ensure health and safety under the model WHS laws, subject to the relevant consultation being carried out at the workplace.

Drug testing tends to be more controversial in the community because:

- testing methods for some kinds of drugs may be in early stages of development so their effectiveness may not be proven or widely accepted
- some kinds of drug tests pick up traces of drugs in a person's system which may have been consumed well before the test is carried out and no longer pose any risk of impairment—this situation gives rise to privacy concerns
- there may be an unclear relationship between drug consumption and the corresponding degree of impairment
- testing tends to be focused on illicit rather than prescription drugs even if the potential for impairment is the same.

In relation to the last dot point there are no accepted threshold levels for deciding on impairment with prescription drugs, meaning they cannot be tested for work health and safety purposes in a meaningful way. Prescription drugs such as antidepressants may have significant work health and safety implications, for example affecting a person's ability to operate plant. This means that a worker's impairment would generally still need to be assessed.

Alcohol and drug testing at the workplace is increasingly common, so an appropriate regulatory response (if any) requires careful consideration.

Example: default drug testing arrangements (Qld)

In Queensland 'Recognised Standard 07'—a code of practice made under section 37(3) of the *Coal Mining Safety and Health Act 1999* (Qld)—sets out the criteria for the assessment of drugs in coal mines.

This 'default' Standard is for coal mines applies where agreement has not been achieved under the relevant Act with a majority of workers at a mine on the criteria for assessment to decide a person's fitness for work by:

- random testing before starting or during work
- testing a person if someone else reasonably suspects the person's ability to carry out the person's duties at the mine is impaired because the person is under the influence of drugs.

The Queensland 'default' Standard provides technical guidance on the criteria for assessment, contemplating urine testing, oral fluid testing and—in limited circumstances

requiring the person's signed consent—blood analysis, i.e. where a person is unable to supply an oral fluid or urine specimen and is hospitalised following an incident.

The Queensland 'default' Standard incorporates the following standards, which are available for a fee from SAI Global:

- AS/NZS 3308: 2008—Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine
- AS 4760: 2006—Procedures for specimen collection and the detection and quantitation of drugs in oral fluid.

Among other things:

- AS/NZS 3308: 2008—allows for certain screening using the cut-off levels as specified for: amphetamine-type substances, benzodiazepines, cannabis metabolites, cocaine metabolites and opiates.
- AS 4760: 2006—covers applicability of oral fluid for drug testing and general issues related to drug detection on-site and quantitation in relation to opiates, amphetamine-type stimulants, cannabis and cocaine and its metabolites.

This regulatory model in effect limits the kind of drug testing that may be carried out if an issue about drug testing arises at the workplace but the relevant parties are unable to agree on a policy for drug testing.

Further consideration should be given as to whether this kind of model, or any other kind of regulatory model, should be adopted under the proposed mines regulations.

Fatigue

Fatigue is another factor that bears directly on the fitness of a worker to carry out their work safely and without risks to their own health or that of others. Aspects of the mining industry—such as the prevalence of 'fly in—fly out' shift arrangements—make this issue particularly relevant to the industry.

Regulation 9.3.1 requires mine operators to develop and implement strategies for the control of any risks to health or safety associated with worker fatigue. Any such strategies would form part of the WHS safety system for the mine.

Consultation requirements in relation to the development of strategies to manage fatigue are covered under regulation 9.4.2(e) of the draft model mines regulations.

Consideration could be given to whether:

- further provision should be made in the regulations on what the proposed strategies must cover.
- a corresponding worker duty is supported, for example a requirement to advise their PCBU of certain circumstances relevant to their ability to carry out work safely, of which fatigue would only be one example.

There is an argument that regulation may not be necessary as various forms of 'self-reporting' on these kinds of issues are already treated as employment issues and required by PCBUs as a matter of workplace policy.

Health monitoring

Division 6 of Chapter 7 the draft WHS Regulations and regulations 9.3.5 – 9.3.6 of the draft model mines regulations both make provision for health monitoring. Note that although the term 'health surveillance' has been used in various parts of the draft WHS Regulations the intention is to replace these references with the term 'health monitoring' to maintain consistency with the use of this term in the WHS Act.

Many aspects of health monitoring including allocating responsibility for costs, provision of health monitoring records and privacy issues are common to all kinds of health monitoring required under the model laws. For that reason—and to the extent possible—the health monitoring requirements in the draft model mines regulations have been based on the general principles agreed for the draft WHS Regulations.

Consideration could be given as to whether the scope of health monitoring requirements proposed under the mining regulations adequately deal with the relevant mining specific issues. For example:

- whether further provision should be made to minimise any duplication between health monitoring requirements, such as the parallel obligations of mine operators and employers at the mine—note there is a general duty to monitor workers' health under the WHS Act
- whether further provision should be made about sharing of costs relating to health monitoring
- whether special provision should be made in relation to workers that work multiple mines in a region, so for example the resulting health monitoring information may be obtained once only and shared between relevant duty holders
- whether special provision should be made in relation to workers that are already subject to ongoing health surveillance by their employer that meets the requirements of the model mines regulations when they commence work at a new mine—see regulation 9.3.3(2)(a).

MINE SURVEY PLANS

Part 9.5 of the draft model mines regulations sets minimum requirements for mine survey plans. The intention is that this Part could be omitted for those jurisdictions that include these requirements in other laws such as mining tenement laws. See the jurisdictional note in the Appendix.

Regulation 9.5.1(1) would require mine operators of underground coal and underground metalliferous mines to have accurate and detailed survey plans to be prepared by a 'registered mine surveyor'. A jurisdictional note would then allow each jurisdiction to insert the relevant term or registration scheme for their jurisdiction.

As registration for this purpose falls within state and territory responsibility consideration should be given to resourcing requirements to meet this requirement for the relevant mine operators in each jurisdiction.

OFFENCES AND PENALTIES

The draft model mines regulations do not include offence or penalty provisions. The intention is for penalties levels to be set consistent with comparable offences under the draft WHS Regulations, once finalised.

TRANSITIONAL ARRANGEMENTS

The intention is that appropriate transitional arrangements will be made for the transition to the proposed new laws.

However the draft model mines regulations do not cover this issue.

Consideration should be given as to what kinds of transitional arrangements should be made, having regard to the different 'starting point' for each jurisdiction.

SECTION B: MODEL CODES OF PRACTICE FOR MINES

The model Codes of Practice aim to provide practical guidance to duty holders on how to meet the requirements under the WHS Act and Regulations. Once implemented, these Codes of Practice will be approved under section 274 of the WHS Act.

Approved Codes of Practice are admissible in court proceedings under the WHS Act and Regulations. Courts may regard a Code of Practice as evidence of what is known about a hazard, risk or control and may rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

The WHS Act and Regulations may be complied with by following another method, such as a technical or an industry standard, if it provides an equivalent or higher standard of work health and safety than the code.

The model Codes of Practice below have been drafted to support the model Mines Regulations. These codes may be supplemented with additional guidance material.

In relation to each of the following draft codes, feedback is particularly sought on whether the codes:

- are helpful and easy to understand, and
- reflect current state of knowledge and technological developments in relation to managing various risks.

Model Codes of Practice	Summary
Work Health and Safety Management Systems in Mining	This Code provides guidance for a mine operator on how to meet the requirements of the WHS Regulations to establish and implement a work health and safety management system (WHSMS) for a mine. This Code applies to all types of mines including quarries, sand dredging and other extractive operations and tourist mines.
Roads and Other Operating Vehicle Areas	This Code provides practical guidance on how to manage roads and other vehicle operating areas to reduce the risk of the hazards associated with vehicle and pedestrian movement and interaction around mines. It also provides information on preparing a principal mining hazard management plan that identifies the hazards, assesses the risks and outlines risk control measures associated with roads and other vehicle operating areas in operating metalliferous and coal mines, quarries and exploration sites. It includes both underground and surface operations.
Strata Control in Underground Coal Mines	This Code is a practical guide to assist the mine operator to develop and implement of a principal hazard management plan for strata instability as required under the WHS Regulations. This Code applies to the underground workings of a coal mine but does not apply to the surface effects of underground mining.
Inundation and Inrush Hazard Management	This Code provides practical guidance to assist the mine operator to develop and implement a principal mining hazard management plan for inundation and inrush including those related to undersea workings. Outburst hazards are not included in the definition of inrush hazards and are the subject of a separate principal mining hazard management plan.
Emergency Response at Australian Mines	This Code provides guidance on how to respond to an emergency at a mine as well as meet the requirements under the WHS Regulations in relation to developing an emergency plan. This Code assists mine

Model Codes of Practice	Summary
	<p>operators to determine how to respond to different types of emergencies at a mine and assists in the development of an emergency plan.</p> <p>This Code is not intended to address the rescue and/or recovery of persons using specialist agencies except to the extent that those services are to be included in the implementation of the emergency response plan as required by Schedule 3 of the WHS Regulations.</p>
Managing Naturally Occurring Radioactive Materials (NORMS)	<p>This Code will assist the person conducting a business or undertaking to ensure that workplaces where NORMs associated with mining occur (whether in situ or when persons are exploring for minerals that contain NORMs, or handling, processing, storing or transporting minerals that contain NORMs) are without risks to health and safety and that facilities provided for the welfare of workers and health surveillance are adequate.</p> <p>This Code aligns with the standards governing mining with the system of radiation protection as recommended by the International Commission on Radiological Protection (ICRP), International Atomic Energy Agency (IAEA) and the Australian Radiation Protection and Nuclear Safety (ARPANSA).</p> <p>Further discussions are occurring with ARPANSA to ensure there is no duplication or conflict with their legislation. Rather than a separate Mining Code for Ionising Radiation, amending the current ARPANSA Code to pick up mine-specific issues may be a better way forward.</p>
Mine Records	<p>This Code provides practical guidance for the mine operator on how to create and maintain appropriate mine records. This Code applies to all mines including metalliferous and coal mines (surface and underground) quarries and exploration sites.</p>

FURTHER CODES

Additional model Codes of Practice will be developed to support the implementation of the model WHS Mines Regulations and will be released for public comment as soon as available. Codes that are proposed cover the follow areas:

- **Survey and Drafting Directions for Mine Surveyors**
- **Mine Closure**
- **Ground Control in Underground Mines**
- **Health Surveillance in Mining**
- **Ventilation of Underground Mines**
- **Ground Control for Open Pits**
- **Underground Winding Systems**
- Mine Rescue
- Coal Mines

ATTACHMENT 1: CONTENT FOR NATIONAL DATA SET

A) INCIDENT REPORTING

A mine operator would be required to provide the following prescribed information as appropriate in relation to an incident:

names of the mine holder, mine operator, employer of injured person, if the person is self-employed, the name of the person's business or undertaking
the main industry of the person's employer
the location of the mine
<i>An indication of whether the incident has resulted, or is likely to result in:</i> <ul style="list-style-type: none">• a fatality, permanent incapacity, lost-time injury, restricted or alternative duties, medical treatment, or the potential for fatality, permanent incapacity, a lost-time injury or medical treatment.
<i>If an injury or 'occupational disease' has occurred:</i> <ul style="list-style-type: none">• the name of the person or persons injured• the gender of each injured person• the date of birth of each injured person• the injured person or persons shift start time, shift finish time, and number of hours worked prior to the incident• the person or persons' occupation• the date of the incident or the date on which the occurrence of the occupational disease was first reported to the mine operator• the time at which the incident occurred• a description of the incident or the circumstance leading to the occupational disease which details:<ul style="list-style-type: none">○ what the injured person or persons were doing at the time of the disease exposure or just before the occurrence of the incident○ a description of any particular substance, product, process or equipment involved in the incident○ how the injury was sustained• a classification of:<ul style="list-style-type: none">○ the mechanism of the incident and the agency of the injury○ the bodily location of the injury or disease○ the nature of the injury or disease, and• the employment arrangements of the person or persons at the time of the incident.

B) QUARTERLY REPORTING

A mine operator would be required to report on the following on a quarterly basis:

• the commodity produced at the mine
• the number of people who worked at the mine in the period
• the total number of hours worked at the mine in the period
For each incident at the mine during the period which resulted in a fatality, lost time, medical

treatment or restricted duties:

- the total number of days lost from work as a result of an incident during the period
- the total number of days spent on restricted duties in the period
- the total number of incidents during the period which occurred that resulted in lost time or an inability of a person to work for a day or longer
- the number of persons who were placed on restricted duties as a result of an incident during the period
- the number of medical treatment injuries in the period which did not result in a lost time injury, and
the number of fatalities that occurred in the period.

C) DEFINITIONS

Individual's employer

Definition. The name of the organisation that directly employs the injured worker/s.

Purpose. To identify the organisation that directly employs the injured worker. This may be the mine operator, or it may be a (sub)contractor, or labour hire suppliers.

Industry of the employer

Definition. The main activity of the employer at the mine site where the incident occurred.

Purpose. To enable comparison of aggregate data within specific sectors of the industry.

Location

Definition. The name and physical address of the mine site where the incident occurred.

Purpose. To enable identification of the geographic location of injury/disease occurrences.

Severity indicator

Definition. Identification of the incident as either a fatality, lost-time injury, medical treatment injury or high potential incident.

Purpose. To enable identification of the category of incident for comparison of aggregate data.

Classification/coding. Fatality, permanent incapacity, lost-time injury, medical treatment injury high potential incident.

Name of injured worker

Gender

Definition. The gender of the worker.

Purpose. To facilitate analysis of injury and disease experience by gender.

Date of birth

Definition. The date of birth of the worker.

Purpose. To enable analysis of occurrences by age to determine any links between types of occurrences and specific age groups. To assist in the unique identification of workers.

Classification/coding. To be recorded in day, month, year format.

Working and Travel Hours

Definition. The worker's shift start time, shift finish time, and number of hours worked in their roster prior to the time of the incident.

Purpose. To identify any possible links between specific types of shift arrangements and injury/disease experience so that preventive action can be targeted more effectively.

Occupation

Definition. The worker's occupation at the time of the injury or reporting of the disease.

Purpose. To identify the occupation of injured workers, allowing analysis of occupationally related injury/disease experience. To assist in targeting high-risk occupation groups for priority prevention activity and to enable the comparison of employers' experiences with aggregate statistics.

Date of injury occurrence or report of disease

Definition. The date of the injury occurrence or the date the disease was first reported.

Purpose. To enable comparison of data over time, to monitor performance and to indicate seasonal trends.

Classification/coding. To be recorded in day, month, year format.

Time of occurrence

Definition. The time of the injury occurrence. Not relevant for disease occurrences.

Purpose. To enable analysis of occurrence by time of day.

Place on mine site where incident occurred

Definition. Identification of where the injury occurrence or disease exposure occurred.

Purpose. To enable analysis by place on mine site, and identify links between other factors such as bodily location of injury or disease.

Description of occurrence

Definition. Description of the processes and circumstances leading to the injury/disease occurrence.

Purpose. Fundamental to identifying the nature of the occurrence.

Bodily location of injury or disease

Definition. The bodily location of the most serious original injury or part of the body affected by disease.

Purpose. To enable analysis of injuries or diseases affecting specific bodily locations to assist in the development of programs to counteract such injuries, for example, eye injuries via an eye protection program. To enable a more detailed analysis of the nature of the work injury/disease.

Nature of injury or disease

Definition. The most serious injury or disease sustained or suffered by the worker.

Purpose. To provide additional information essential to the assessment of each injury or disease occurrence for use in determining corrective action and rehabilitation requirements and in monitoring the employer's injury and disease experience.

Employment arrangements

Definition. The employment arrangements of the worker at the time of the injury occurrence or reporting of the disease.

Purpose. To identify any possible links between employment arrangements and injury and disease experience so that preventive action, in particular the development of training programs, can be targeted more effectively.

Quarterly Statistics

Commodity Processed

Definition. The primary commodity produced at the mine site where the injury occurred or disease identified.

Purpose. To identify any possible links between commodity processed and injury and disease experience so that preventative action can be targeted more effectively.

Number of employees

Definition. The average number of workers who worked in the recording unit during the recording period.

Purpose. To enable the calculation of incidence rates for the recording unit, for identifying high risk groups and for monitoring the success of preventive strategies over time.

Number of hours worked

Definition. The total number of hours worked by employees in the recording unit during the recording period.

Purpose. To enable the calculation of frequency rates for the recording unit and the enterprise as a whole, for identifying high risk groups and for monitoring the success of preventive strategies over time.

Classification/coding Employees, contractors.

Number of incidents

Definition. The total number of incidents (including lost time injuries, medical treatment injuries, restricted duties injuries and high potential incidents) recorded in the reporting period.

Purpose. To enable the calculation of incidence rates for the recording period.

Number of lost time injuries

Definition. Total number of injuries/disease occurrences that resulted in lost time, i.e. the inability to work the next day or longer (whether they are rostered on or not).

Purpose. To enable the calculation of lost time rates for the recording period.

Days lost from work

Definition. The total number of days lost from work as a result of the injuries/disease.

Purpose. To provide an indication of the severity of lost-time injuries and diseases in terms of lost working time and to enable the calculation of average time lost rates.

Number of restricted duties injuries (employee/contractor)

Definition. Total number of injuries/disease occurrences that resulted in restricted duties.

Purpose. To enable the calculation of incidence rates for the recording period.

Number of days on restricted duties

Definition. The total number of days where employees/contractors have to work on restricted duties.

Purpose. To enable the calculation of incidence rates for the recording period.

Number of medical treatment injuries

Definition. An MTI is a work-related injury resulting in the management and care of a patient, which does not result in lost time or restricted work.

An MTI includes suturing of any wound, treatment of fractures, treatment of bruises by drainage of blood, treatment of second and third degree burns.

MTIs do not include:

- visits to physicians or other licensed health care professionals for observation or counselling*
- conduct of diagnostic procedures, such as X-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g. eye drops to dilate pupils)
- visits to physicians or other licensed health care professionals solely for therapy as a preventative measure (e.g. physiotherapy, massage, tetanus or flu shots)
- first aid injuries

[* This is intended to refer to diagnostic counselling, used to determine if treatment is required. If treatment is given, or further treatment is required, then it is considered an MTI]

Purpose. To enable the calculation of incidence rates for the recording period.

Fatalities

Definition. Total number of fatalities that occurred as a result of an injury or disease occurrence.

Purpose. To identify number of fatalities.

ATTACHMENT 2: PROHIBITED ITEMS SCHEDULE

Note: Other items or substances may be prohibited absolutely or for particular uses under a WHS safety management system. This schedule should be read together with the other requirements of the WHS Act and Regulations. It does not limit the requirements specified elsewhere for example requirements relating to methane.

A) ALL MINES INCLUDING UNDERGROUND MINES

Column 1—Item	Column 2—Prohibited use
Ignition sources For example—cigarettes, matches, lighters, naked flame, naked light	While carrying, handling or using any explosive or initiating system and within 8 metres of any explosive or initiating system At a mine or work area at a mine where there is or is likely to be a risk to health and safety from: —contaminants including airborne gases, vapours and dusts that may cause injury from fire or explosion Example: flammable gases or industrial solvents with a low flashpoint In a shaft conveyance In a refuge chamber during an emergency
Items containing uncoated or unprotected aluminium or light metal alloys	In an area of the mine where the atmosphere contains more than 1.25% methane
Explosives, detonators and exploders	All uses at the mine—unless designed for shotfiring
Firearms	All uses at the mine

B) UNDERGROUND MINES

Column 1—Item	Column 2—Prohibited uses in underground mines or specified underground mines
Internal combustion engine (other than a compression ignition engine)	All uses underground
Unlicensed polymeric chemical products—in jurisdictions that license these products	All uses underground
Compressed natural gas	In an internal or external combustion engine underground
Hydrogen	In an internal or external combustion engine underground
Liquid petroleum gas	In an internal or external combustion engine underground
Petrol and Fuel	In an internal or external combustion engine underground unless the engine is designed for use underground
Ignition sources For example—cigarettes, matches, lighters, naked flame, naked light	[Comment sought]

Items containing uncoated or unprotected aluminium or light metal alloys	<p>In an underground coal mine—anywhere on the inbye side of:</p> <p>—the first cut-through outbye, a longwall face or the last line of open cut-throughs in a panel, or</p> <p>—a distance of 100 metres outbye, a longwall face or last line of open cut-throughs in a panel, whichever is the larger area</p> <p>In an area of the mine where the atmosphere contains more than 1.25% methane</p>
Non-fire resistant and antistatic products	In an underground coal mine—all uses underground
Explosives, detonators and exploders	All uses at the mine—unless designed for shotfiring
Firearms	All uses at the mine