Government of **Western Australia**
Department of **Mines and Petroleum**
Resources Safety

2016 Mines Safety Branch resourcing and funding independent assessment

January 2017

Part 1

Report and recommendations by Deloitte

Part 2

Department of Mines and Petroleum's response to recommendations

Deloitte.

Department of Mines and Petroleum

2016 Mines Safety Branch resourcing and funding independent assessment

9 November 2016

Contents

1 Executive summary

1.1 Department of Mines and Petroleum background

The Department of Mines and Petroleum (**DMP** or the **Department**) is responsible for ensuring Western Australia's (**WA**) resources sector is developed and managed responsibly and sustainably for the benefit of all Western Australians. As the State's regulator for extractive industries and dangerous goods, DMP is the lead agency in administering WA's multi-agency regulatory framework. DMP strives to ensure the State's safety, health and environmental standards are achieved and consistent with relevant Commonwealth and State-based legislation, regulations and policies.

DMP's Resources Safety Division (**RSD**) is WA's specialist regulator for Occupational Safety and Health (**OSH**) in the minerals and petroleum sectors and is responsible for administering legislation for the safe use of dangerous goods. RSD is also responsible for implementing the State Government's safety reform strategy – Reform and Development at Resources Safety (**RADARS**).

The Mines Safety Branch (**MSB**) is a section within RSD, alongside Petroleum and Dangerous Goods, and Licencing and Regulation Branches. Each Branch has its own separate set of statutory legislation under which it has the authority to regulate. MSB is the regulator tasked with enforcing industry compliance with the *Mines Safety and Inspection Act 1994* (**MSIA** or **the Act**) and the *Mines Safety and Inspection Regulations 2010* (**MSIR**).

Significant investment and growth within the mining and petroleum sectors over the past decade has required a response by WA Government. In order to maintain what is deemed an appropriate level of safety regulatory service and implement RADARS, funding changed from consolidated revenue to cost recovery from industry. For the mining industry, the cost recovery model came into effect in April 2010 through a levy imposed under the *Mines Safety and Inspection Levy Regulations 2010* (**Levy Regulations**).

1.2 Objective of the independent assessment

Deloitte was engaged in March 2016 to undertake an independent assessment of MSB's funding and resourcing. With the recent decline in commodity prices, diminished industry confidence and reduced activity as iron ore mining moves from large scale construction to production, there is increased scrutiny of DMP's cost-recovery programs.

The three objectives of the assessment aimed at determining whether:

(a) MSB is appropriately resourced and structurally organised for effective and efficient regulation of OSH in the WA mining sector

(b) The Mine Safety Levy regime, which funds MSB, is fair, equitable and effective

(c) Adequate and appropriate systems and processes have been designed and implemented to administer and enforce the MSIA.

The Terms of Reference prepared by DMP is attached at **Appendix A**.

1.3 Independent assessment approach

The independent assessment approach centred on the following key activities:

- Interviews with key DMP personnel, including the Executive Director – RSD, State Mining Engineer, Inspectors, Investigators and General Counsel to walkthrough processes and activities undertaken by MSB. Refer to **Appendix B** for DMP persons interviewed during this assessment
- Examination of DMP-provided documentation, including policies, procedures, business plans, internal audit reports, financial modelling workbooks and other materials. Refer to **Appendix C** for a list of materials examined
- Consultation with industry bodies through unstructured interviews and examination of industry submissions. Submissions were received from the Chamber of Minerals and Energy of Western Australia (CME WA, **Appendix D**), the Association of Mining and Exploration Companies (AMEC, **Appendix E**), the Amalgamated Prospectors and Leaseholders Association of Western Australia (APLA, **Appendix F**) and the Australasian Institute of Mining and Metallurgy (AusIMM, **Appendix G**)

- Consultation with union bodies through completion of a survey. Unions invited to respond to the survey were UnionsWA, CFMEU, Australian Manufacturing Workers' Union and United Voice. No responses were received
- Independent research and analysis of other jurisdictions' approaches to mines' inspectorate activity and funding. We attempted to consult directly with other mines safety inspectorates to undertake a cross-jurisdictional comparison utilising a defined survey question set. Other jurisdictions invited to participate in the analysis were Queensland, New South Wales, New Zealand and Canada. New Zealand was the only jurisdiction to formally respond. We therefore utilised publically available information for the other jurisdictions where possible.

1.4 How to read this report

The Kenner Report[1] is in many ways the baseline for this report, because the RADARS reforms, which resulted from the Kenner Report, led to MSB we see today. This report compares MSB and industry activity between 2009 and now and also takes a look forward to ensure MSB is continuing to set itself up for success.

The independent assessment report has been structured into various sections, which are interrelated – with specific details, findings and suggestions for DMP consideration throughout the report. To achieve the above assessment objectives, the report has been structured to align with the following format:

Section	Content	Description
2	WA's mining industry – an economic perspective	A high-level economic summary of WA's mining industry to provide the reader with context as to the state of the industry as at the time of writing this report.
3	MSB's legislative landscape – an important consideration	Background information, context and the principles through which the assessment has been undertaken.
4	What does MSB do as a regulator – and should it?	Determines what MSB does as a regulator and challenges whether these activities should be undertaken. The section also assesses whether any relevant activities are not being undertaken by MSB.
5	Is MSB set-up to succeed?	Defines 'success' for MSB as the baseline consideration and assesses the structural design and implementation of MSB practices against the baseline.
6	How well does MSB operate as a regulator?	Assesses whether MSB is focusing on the right things as a regulator and achieving what it should.
7	Is the current Mine Safety Levy regime fair and equitable?	Assesses whether the mine safety levy is fair and equitable. Challenges the current cost recovery funding model against cross-jurisdictional analysis undertaken utilising publically available information and economic analysis.
8	MSB risks and funding options for the future	Draws on the information and analysis of section 7 to detail various different funding options for the future in the context of the changing industry and risks that the Department has to consider.

1.5 Our point of view – summary of findings

The scope of the assessment has a number of disparate elements, which is a product of the varying drivers behind the work. We believe the assessment was in response to industry pushback to the proposed increase to the mines safety levy at a time when industry is experiencing severe capital shortages and sustained low commodity prices. There are many competing views and interests around what MSB actually does and should do.

MSB performance

We believe MSB is doing a good job delivering regulatory service for the community – in effect, answering mostly in the affirmative to objectives (a) and (c) at section 1.2 of this report. Having walked through various processes with inspectors, investigators and legal personnel, and gathered feedback from a wide variety of external industry stakeholders; it appears DMP is collegiate, focused on helping industry and improving safety performance.

[1] Section 110 of the MSIA requires a statutory review of the Act to be undertaken as soon as practicable after 1 December 2009 and every fifth anniversary of that day. In 2009, a statutory review of the MSIA was reported by Commissioner Kenner (the **Kenner Report**)

We have no significant criticisms of MSB in terms of its resourcing, structure, organisation, systems or processes. A number of recommendations for process improvement are made in the body of the report, but in our view, DMP is adequately resourced and able to efficiently and effectively achieve the objects of the MSIA.

Industry has questioned the increased costs associated with MSB and how its resources are being deployed. Our high-level analysis of MSB's activities found that the level of activity in the industry, when compared to the level of activity (and by inference, the costs incurred) by the inspectorate are roughly proportionate – approximately 1.5 times the size and activity since 2009. The proactive activities of the inspectorate (e.g. audits, inspections) have been relatively balanced across commodity types and mining methods, which appears to be fair and reasonable. Reactive activity is driven by response to events in industry (e.g. incidents). The iron ore surface miners pay a larger proportion of the levy but they utilise a larger proportion of the inspectorate's reactive activities.

We found it difficult to gather sufficient, timely information from other jurisdictions to make a fair comparison of DMP's relative performance. However, from the information available from comparable jurisdictions, notwithstanding the caveats and limitations of the analysis, in summary WA appears to be operating its inspectorate more cost-effectively than the comparator regimes of NSW and Queensland:

Table 1: cost effectiveness comparison by jurisdiction

Jurisdiction	Method	Detail
WA	Hours based levy	• Below 5,000 hours per quarter – levy exempt • Above 5,000 hours per quarter - $320 per mine worker, per annum
Queensland	Head tax	• 5 or less workers – exempt • 6 to 10 workers - $103.50 per worker, per annum • 11 or more workers - $822 per mine worker, per annum
New South Wales	Workers Compensation levy	• No levy exemption based on size • 17.7% on workers compensation premiums • $374 per mine worker, per annum

Tying regulatory intent to strategy and measuring performance

MSB does not have a published regulatory strategy, through which its activities are tied to the overarching requirements of the MSIA (**the Objects**); demonstrating its goals, focus areas and measures of success. Therefore, there is no established definition of success. There are a number of strategies, operational plans and reports demonstrating success of output (not outcome) and focused performance measures, however they do not tie to the principal question 'why does MSB exist?'.

We believe such a strategy is imperative for DMP in a cost recovery environment, as it provides a foundation through which MSB can communicate its intent and for industry to understand the regulator's focus. An overriding theme expressed by industry stakeholders was the lack of transparency as to MSB's activities and focus areas. We suggest that greater clarity of intent to industry would remove some of the negative perceptions about the regulator.

Status of the Kenner recommendations

It has been seven years since the Kenner Report was finalised and recommendations issued. DMP was not required to formally respond to or detail corrective actions, assign responsible owners and due dates to the Kenner Report. Consequently, a formal process was not put in place to monitor and report on the status of implementation of the Kenner Report recommendations.

Based on evidence provided, examination of the MSIA or MSIR (as applicable) and discussions with DMP personnel we assessed the status of implementation of the 119 recommendations as follows:

Table 2: status of Kenner Report recommendations

Status	Number	Percentage
Completed	51	43%
Ongoing	21	18%
Not completed but still relevant	35	29%
Not completed but believed to be not relevant	12	10%
Total	**119**	**100%**

The levy and the principles of regulatory funding

Our primary concern relates to objective (b) at section 1.2 – the fairness and equity of the levy itself. As MSB is funded through a cost recovery model, a quote attributed to James Otis is relevant - "no taxation without representation" (1760s). The quote reflected the resentment of the American colonists being taxed by a British Parliament, to which they had no elected representatives. While old, the message behind it is still relevant today.

The mines safety levy is a tax on industry to fund a regulator. While it would be incorrect to suggest that industry should capture the regulator and define its scope and activities, there are valid questions as to the level of transparency to industry of where its money has been spent.

We believe these questions are being raised for a number of reasons - there are a multitude of royalties, levies, fees and other charges imposed on the industry by government; the levy has increased in a year where the industry is facing constrained resources; and there is no holistic, defined regulatory strategy that has been consulted with industry.

Section 3.4 of the Australian National Audit Office's (**ANAO**) 2014 report on *Administering Regulation: Achieving the Right Balance* highlights the following three core principles:

Figure 1: ANAO Administering Regulation core principles

The current structure of the levy imposed on industry does not encourage or align with the above principles. The levy regime appears to have no incentive (or requirement) for cost containment – either through implementing cost efficiency or effectiveness requirements on DMP's use of funds.

As the current levy model is calculated using forecast costs, any calculation errors that result in additional costs or benefits accrue to the (potentially different) payers in future periods via the "true-up". We found such a calculation error that has resulted in future periods benefiting from an over-claim in a previous year.

A better way of financing MSB in future

We believe there are number of options to fund MSB, which would provide for a better basis of fairness and equity. Our conceptual preference and recommendation would be a ***single licence to operate***, which consolidates all fees and charges imposed by the WA government on the mining industry into one annual payment. Such a model to reduce red tape would be a brave step forward in demonstrating 'joined-up government', but would require significant effort.

Acknowledging the above model is a significant change to the way the government operates and may be infeasible, a ***per site charge*** model is recommended as an alternative. It is a model adopted by NOPSEMA, whereby the site is charged an amount based on its category. For example, NOPSEMA utilises 11 categories (Table 22) with a fixed cost per unit of charge. As charges are linked to size and complexity of facilities inspected, those regulated have some proximate idea of the relative costs involved, which should serve regulator cost efficacy.

Other potential funding options are outlined at section 8 of this report. A critical theme is that MSB's risk-based regulation in future may be quite different from today's model as new and different risks emerge, which impacts its funding model. For example, a levy based upon number of workers would be ineffective and inappropriate in a mine of the future with driverless trucks and other modern technology.

Transparency, but not capture, of DMP about the levy

A consistent theme raised during the assessment was the issue of transparency. As the ANAO guidance illustrates above, "cost recovery requires efficiency, transparency and consultation". While we disagree with some industry views that MSB should effectively have to report to industry oversight bodies because that would compromise the independence of the regulator, there are a number of areas where increased transparency should be a focus – including costs attributed to the levy, inspectorate processes, focus areas and strategic direction/regulatory intent.

2 WA's mining industry – an economic perspective

2.1 Current WA mining industry context

In recent years, WA's economic growth has been linked to increasing demand for commodities from emerging market economies, in particular China. However, modest rates of growth in advanced economies, together with progressively slower rates of growth in China, have translated into milder demand conditions for key WA mining commodities, in particular iron ore. At the same time, commodity supply continues to lift as a number of very large projects, which have been in the pipeline for a number of years, are completed. The imbalance between demand and supply has resulted in a significant decline in key commodity prices and continuing low (albeit volatile) prices, which limit the prospect for new, major resource projects over the forward estimates period.

The Deloitte WA Index, which is dominated by resources companies, shed 11.6% in FY15 having grown 290% since 2000 (Deloitte, 2015). Towards the end of FY15, WA faced declining global commodity prices, however, the industry continued to raise royalties of $5.9B and employ more than 100,000 people (DMP, 2015).

As Table 3 and Table 4 illustrate, the WA resources sector had 432 active mines including 130 exploration sites. The primary commodities mined in WA are iron ore, gold and nickel, which account for 41% of WA mines. The remaining 59% (grouped into "other"), include alumina, mineral sands, rare earth elements, lead, zinc, copper, lithium and graphite.

Table 3: Mining and exploration activity in WA by commodity (as at Q4, 2015)

Commodity	Number of mines	Average number of workers
Iron Ore	57	54,694
Gold	90	22,615
Nickel	28	6,017
Other	257	20,442
Total	**432**	**103,768**

Source: Department of Mines and Petroleum, 2016

Table 4: mining and exploration activity in WA by mining method (as at Q4, 2015)

Mining method	Number of sites	Average number of workers
Open Cut	383	82,599
Underground	6	1,119
Open Cut & Underground	43	20,050
Exploration	130	2,247
Total (excl. exploration)	**432**	**103,768**

Source: Department of Mines and Petroleum, 2016

2.2 The WA mining industry – a look forward

Mining and gas exports are expected to continue to be a key driver of the WA's economic growth across the forecast period. In 2016-17, WA Treasury forecasts (as at 12 May 2016) growth of 5.5%, reflecting higher iron ore exports and a significant increase in LNG exports. However, growth in exports is projected to gradually moderate to 2.5% by 2019-20, as LNG and iron ore export levels reach expected capacity and exports of gold and oil decline because of expected resource depletion.

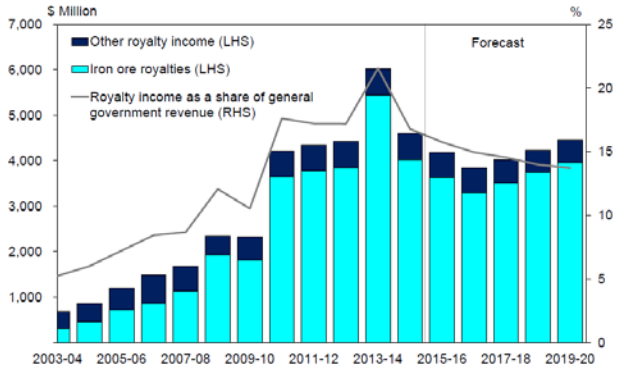
We have prepared a brief summary on expectations for key commodity groupings relevant to the WA economy:

Iron ore

After falling to $US37 per tonne in December 2015, the iron ore price jumped to $US63 per tonne in early March 2016, following announcements at the National People's Congress that the Chinese Government would maintain high levels of urban migration and would continue its strong public investment in infrastructure and social housing. The announcement led to an improvement in sentiment in the steel and iron ore markets.

However, the recent increase in the iron ore spot price is not expected to be sustained into 2016-17, as further substantial increases in low-cost iron ore production are anticipated over the period to 2019-20. The increases include expansions from Rio Tinto, BHP Billiton and FMG, as well as the ramp-up of the Roy Hill mine towards 55 million tonnes per annum. In addition, Brazilian producer, Vale, is on target to begin production at its 90 million tonne per annum S11D mine in the second half of 2016.

Figure 2: iron ore and other royalty forecasts



Source: WA Treasury, 2016

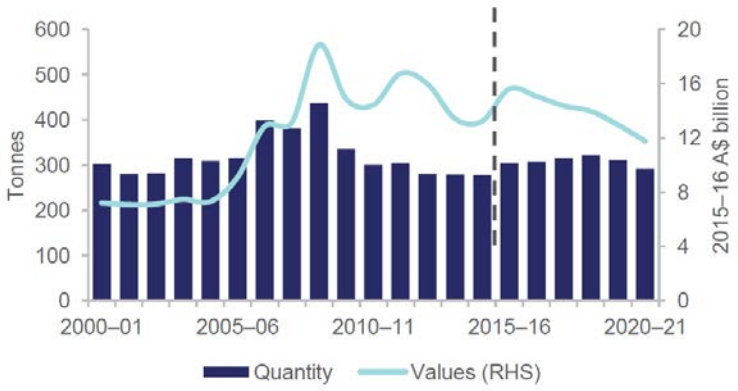
Over the medium-term, growth in iron ore supply is expected to outpace growth in demand, which will likely result in periods of surplus production. Further volatility and downward pressure on price are expected as producers compete to stay in the market. Significant cost cutting by higher-cost producers means that prices may decline further to eliminate surplus production.

Sustained growth in demand for steel in China is considered unlikely over the medium-term because growth will likely be curtailed by significant over capacity in the steel-intensive property and heavy industrial sectors. The ongoing process of structural change in China where household consumption, which is not very steel-intensive, becomes relatively more important for growth.

Gold

Australia is the world's third largest gold producer with the majority sourced in WA by producers such as Newcrest, Northern Star Resources and Evolution Mining. The gold price has strengthened from US$1,064 per ounce at the 2015-16 mid-year review cut-off date to US$1,235 per ounce at the 19 April budget cut-off date (an increase of approximately 16%). The gold price improved as the slower than expected pace of interest rate increases by the US Federal Reserve boosted the attractiveness of gold as a store of wealth, relative to interest-bearing securities. Continuing concerns over Chinese economic data and the 'Brexit' further pushed the price to US$1,339 per ounce by the start of 2016-17.

Figure 3: volume and value of Australian gold exports



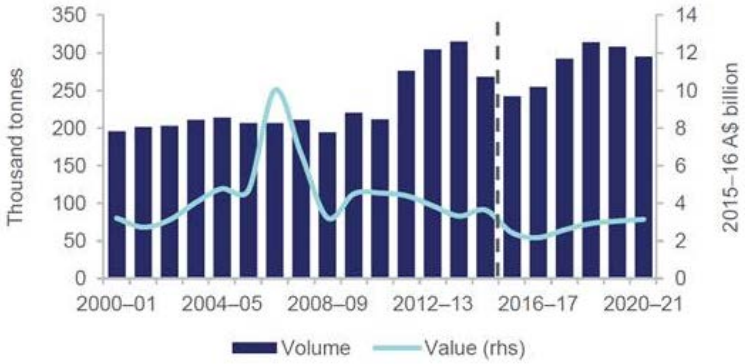
Source: Commonwealth Department of Industry, 2016

Nickel

WA holds one third of the world's known nickel reserves. Australia's mined nickel production is forecast to decrease 12% to 227,000 tonnes in 2016 as lower prices result in production cuts. However, a projected recovery in nickel prices should improve the viability of operations and reduce the likelihood of further reductions in production.

Over the medium term, mined production is projected to increase at an average annual rate of 4% to 279,000 tonnes in 2020–21. The assumed resumption of operations at Poseidon's mines at Lake Johnston, Black Swan and Mt Windarra are projected to support the increase in production. Next year, the Independence Group will open the Nova-Bollinger mine in WA with a capacity of 28,000 tonnes.

Figure 4: volume and value of Australian nickel exports



Source: Commonwealth Department of Industry, 2016

3 MSB's legislative landscape – an important consideration

An appropriate level of effective regulation is an essential component of a well-functioning economy and supports the achievement of economic, social or environmental policy objectives (ANAO, 2014). In designing regulatory approaches, governments need to strike a balance between the obligation to protect the community or public interest, while at the same time not imposing unnecessary costs on those they regulate.

3.1 Objects of the *Mines Safety and Inspection Act 1994*

An important premise is MSB's activities are driven by the objects of the Act. MSB is the regulator tasked with enforcing industry compliance with the MSIA and MSIR and as such, has a responsibility for promoting and improving the safety and health of persons at mines.

The objects of the MSIA, as detailed at section 3 of the Act, are to:

(a) Promote, and secure the safety and health of persons engaged in mining operations

(b) Assist employers and employees to identify and reduce hazards relating to mines, mining operations, work systems and plant at mines

(c) Protect employees against the risks associated with mines, mining operations, work systems at mines, and plant and hazardous substances at mines by eliminating those risks, or imposing effective controls in order to minimize them

(d) Foster and facilitate cooperation and consultation between employers and employees, and associations representing employers and employees, and to provide for the participation of those persons and associations in the formulation and implementation of safety and health standards and optimum working practices

(e) Provide procedures for employers and employees to contribute to the development and formulation of safety legislation for mines and mining operations and to consult regarding its administration.

While the objectives are broad, we argue the scope of regulatory service undertaken by MSB (and other supporting areas within DMP directly attributable to the mining industry and captured by the levy) should fall within the boundaries of these objects. Any activities undertaken outside of the objects of the MSIA would be outside the remit of MSB. However, there may be occasions where, because of DMP's specialist skills, they are called on e.g. in times of emergency.

The MSIA applies to all operations where there is a mine or exploration activity in WA's jurisdiction. It can, for example, include ports where mined ore is transported. The legislation excludes railway activity, which is regulated by the Office of the National Rail Safety Regulator. As a minor point to note, we found that the definition of a mine is different in the MSIA and the *Mining Act 1978*.

Recommendation 1
DMP should consult with relevant parties to ensure that, with harmonisation, the definition of a 'mine' is consistent through WA's legislative instruments.

Our work has utilised the objects of the Act as the overriding context and foundation for our assessment. When reading this report, the reader should refer to these objects as the foundation for our comments and judgements in relation to the assessment's terms of reference.

4 What does MSB do as a regulator – and should it?

The Kenner report (2009, p.154) states the role of the inspectorate is *"not to keep the mining industry safe, that is primarily the responsibility of the duty holders"*. We agree and believe the statement accurately reflects MSB's role for industry.

4.1 Regulatory oversight of the mining industry

Sparrow (2000) explains the cycles of safety regulation and how economic cycles often lead to cycles of regulatory upscaling (e.g. during bull cycles or as a result of disasters), followed by regulatory downscaling (e.g. during bear cycles) often as a response to industry complaints about 'red tape' and the cost of doing business. However, we argue that an appropriately skilled and resourced regulator is a necessity as some in industry pull back in down-cycles – potentially removing some control barriers that would be in place during upturns.

Positively, DMPs current approach to safety regulation represents a balance between promoting safety outcomes, monitoring compliance and enforcement activities. Under RADARS, the Department aims to move beyond compliance monitoring to encourage duty holders to improve risk management, independent of the issue of compliance, in line with the objects of the MSIA.

We observed that MSB is under scrutiny from industry. MSB's work will be subject to a variety of views along a spectrum, with, at the extremes, potentially competing points of view. The interventionist view is that MSB's mandate is to oversee and promote a positive, risk-based safety culture in the mining industry leading to incident prevention. The alternate view is one of self-regulation, with minimal government intervention, minimising 'red tape' with its inherent costs and time delays (i.e. perceived bureaucratic obstructionism), which is argued to prevent the resources sector from competing globally. Both sides of the argument merit consideration and highlight the fine balancing act MSB has to negotiate.

Royal commissions and other reports as to the causal factors of many mining disasters such as Pike River (NZ Government, 2012) and Beaconsfield, Tasmania (Quinlan, 2014) appear to have at least one common factor - *failures in regulatory oversight* - which is often related to resourcing constraints, whether referring to people (skill or number), system limitations or financial.

We advise against any repetition of the type of action that led to past disasters, such as the de-skilling of the inspectorate or removing the specialist focus or nature of the services provided by this important regulatory body.

4.2 Delivery of regulation using defined processes

As Sparrow puts it, "*regulators, under unprecedented pressure, face a range of demands, often contradictory in nature: be less intrusive – but more effective; be kinder and gentler – but don't let the bastards get away with anything; focus your efforts – but be consistent; process things quicker – and be more careful next time; deal with important issues – but do not stray outside your statutory authority; be more responsive to the regulated community – but do not be captured by industry*" (Sparrow 2000, p.17).

The below RADARS model demonstrates the primary MSB processes, which follows a safety compliance cycle of continuous improvement (refer to Figure 5).

Figure 5: RADARS model to improve industry compliance

Simplistically, MSB's activities can be grouped into the Plan-Do-Check-Act (**PDCA**) framework, as demonstrated at a high-level below in Table 5:

Table 5: PDCA and the inspectorate's activities

PLAN	DO	CHECK	ACT
• Approve new mines & their safety management systems (**PMP**) • Approve Radiation Management Plans (**RMP**) • Manage the Competency Framework for statutory position holders on mine sites.	• Educate and inform industry based on learnings from data, audits and investigations; instigate research projects as necessary • Consult and respond to industry queries • Issue new guidance material.	• Site inspections • Audits.	• Issue notices (Improvement & Prohibition) • Investigate incidents and accidents • Prosecutions.

We have analysed MSB's activities against the objects of the Act, specific sections of the MSIA and MSIR and believe that the scope of activities undertaken by MSB is appropriate. There is always a degree of judgment involved, but we do not agree with the assertion from some in industry that MSB may, in part, be operating outside its jurisdiction. One specific example could be the proactive activity of educational roadshows, which we believe is a component of object to; (a) *promote, and secure the safety and health of persons engaged in mining operations.*

Interestingly, not one stakeholder tied their submission or points of view to the objects of the MSIA. We believe this omission was problematic, as comments were made as to MSB's activities and it appears that industry stakeholders may not have considered or attached adequate weight to the objectives of the Act in their responses. If they had, they may not have held these points of view.

In order to ensure DMP activities fully conform to approved procedures and policies, it was necessary to walk through processes and Safety Regulation System (**SRS**) functions with MSB personnel. We found that:

- MSB is in the process of updating its policy and procedural documentation and uploading into a Quality Management System (**QMS**). Discussions with a range of personnel found the current suite of policies and procedures are not used to drive the performance of their duties because they are outdated
- Supported by SRS, the regularity of site visits and issues (e.g. Traffic Management and Emergency Response focus after considerable loss of control of vehicle and collision events reported on a site) that require attention on inspections or focused audit activity are decided and rolled-out

- Since the introduction of SRS in 2010, processes have progressively become less manual as SRS drives processes to be undertaken and data to be collected in a manner visible to all inspectors and to sites (for their own data). SRS has enhanced the quality, completeness and consistency of SVRs, audits, improvement notices, prohibition notices and investigations
- The intensity of inspectorate follow-up depends on the severity and frequency of issues at the site. As SRS data and evidence builds a history of ongoing breaches, the case is built for Prohibition Notices and potential prosecution, which are carried out by inspectors with support from the Investigation Services Branch (**IB**). At the most extreme, the case is handed to the IB to develop a factual report and prosecutions brief.

4.3 How does MSB deploy its resources?

Interviews with the Executive Director – RSD and the Director – Mines Safety (who is also the State Mining Engineer) highlighted DMP's position for deploying its resources is risk-based. Comments were made that MSB has to make decisions relating to its limited resources and how it needs to focus on the 'big ticket' items relevant to industry.

As MSIA and MSIR breaches and safety issues become apparent via numerous methods, including SRS notifications of reportable occurrences, Team Leaders allocate sites to inspectors to follow-up with inspections and possibly audits, issuing Improvement Notices (**IN**) and Prohibition Notices (**PN**) as required, or to escalate to investigations. Attention from specialist inspectors is allocated depending on site-specific issues (e.g. electrical inspector for HV issues; mechanical inspector for classified plant issues; geotechnical inspector for rock-falls and seismicity; radiation inspector for radiation matters).

From walkthroughs of DMP processes, we understand site-specific risk profiles are created using a range of information sources. However, the risk rating process is not formalised against a defined set of criteria. It is based on MSB staff's experience and factors such as incidents, non-compliance issues or questions relating to skillsets of personnel. From this assessment, a customised view of the main issues causing safety concerns at each site is generated, ready for inspectors to follow-up. Initially, follows-ups are proactively held with inspections, which include conversations with site technical, management and safety & health representatives and targeted audits (i.e. Safety Management System Audits and High Impact Function Audits).

SRS, as it matures, is becoming increasingly useful in this risk definition process. An example being the Seismic/FOG Wizard, which captures details of reportable incidents of falls of ground and mining induced seismicity (in years past, a major cause of underground mining fatalities and serious injuries). A business intelligence tool has also been developed that enables comparison across and between industry performance.

Recommendation 2
DMP should formalise its risk assessment process for WA mine sites, using a defined set of criteria that enables a consistent approach across industry. The risk criteria could be built into SRS so that particular factors drive higher risk levels and are drawn to the attention of the applicable Inspector, thereby encouraging appropriate action.

4.4 MSB activity over time

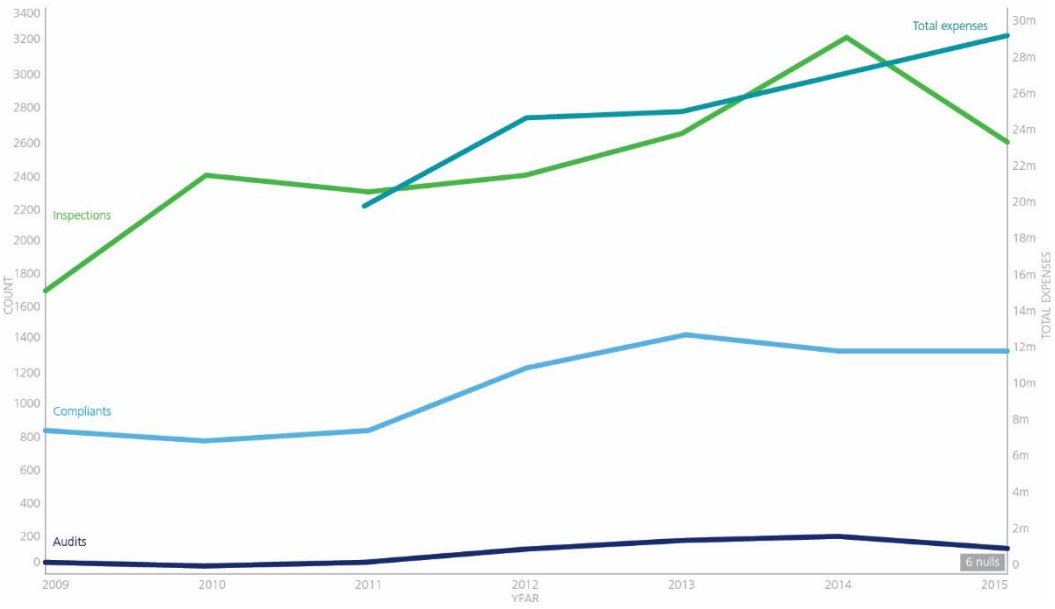
As part of our assessment, we analysed MSB's activity to see how it has delivered over time, purely from a volume perspective. The collated data is attached at **Appendix H**. Comparative to the volume of activity undertaken by MSB at the time of the Kenner Report in 2009 (our baseline), the levels of activity across key operational functions has generally increased by a factor of 1.5, consistent with the increase in inspectorate size. Table 6 provides a summary of the percentage changes from 2009 to current reported period.

Table 6: percentage changes in core MSB activities since the Kenner Report (2009)

Proactive programmable activity	% change	Reactive activity	% change
Site Inspections	153.7%	OHS Complaints	149%
Audits	206.5%	Investigations	139.5%
Safety & Health Representative contacts	143.5%	INs Issued	95.1%
		PNs Issued	160.9%

Figure 6 provides a summary of the key activities performed over time and shows a general increase in inspections, OHS complaints and audits until at least 2013 with some recent decline in activity levels. We mapped the activity levels to the total expenses from 2011, which have been steadily increasing.

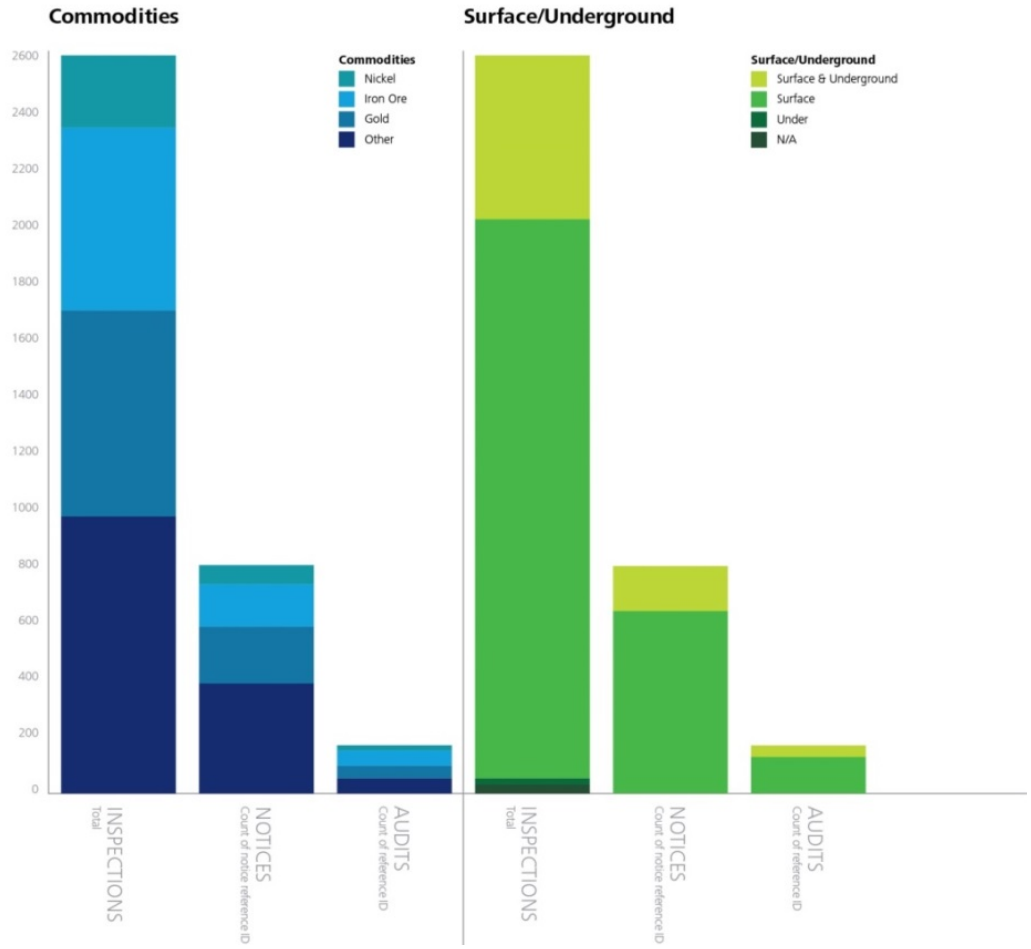
Figure 6: MSB activity since 2009



Analysis of FY15 MSB activity data demonstrates proactive inspectorate efforts are expended fairly evenly across the commodity groupings, mining methods and geographies commensurate with the level of activity (both number of mines and number of workers) – refer to Figure 7.

Iron ore mines represent 13% of the number of mines in WA but pay 53% of the total levy, which could lead to some arguments of inequity. However, given the large volume of activity and high percentage of reactive activity (i.e. investigations and prosecutions) attributed to iron ore surface mining, we believe that there is a strong argument that MSB is expending effort in a fair manner, focusing on the perceived location of where risks are likely to crystallise because of higher exposure levels.

Figure 7: FY15 proactive MSB activities by commodity and mining method



Surface mines contribute to approximately 75% of the inspectorates' activity, which appears appropriate, as surface mining predominates at 89% of the WA mining industry (i.e. 383 mines of a

total 432). There are approximately 49 underground mine sites in WA, mostly in the gold and nickel sector. Known for their more hazardous conditions, these mines would be expected to be well-represented in the proactive activities of the inspectorate, as they are. Analysis of investigations and prosecutions activity (Figure 8, Figure 9 and Figure 10) demonstrates that the iron ore industry dominates MSB, IB and LSB activities, consuming just over 50% of caseloads. Gold is the next highest at 30%.

Figure 8: distribution of prosecution case load between commodities for serious injuries (as at 24/3/16)

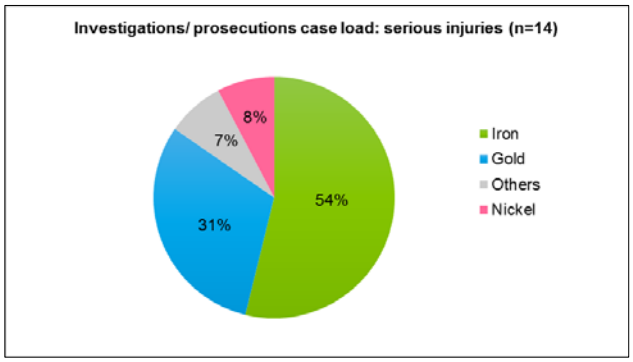


Figure 9: distribution of prosecution case load between mine types and commodities (as at 24/3/16)

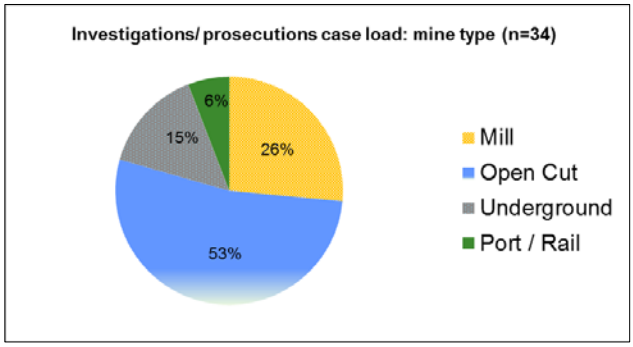
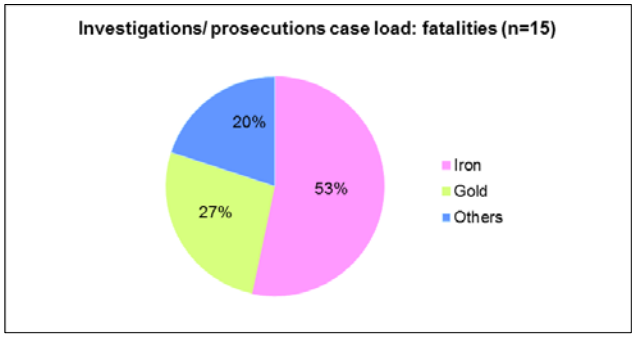


Figure 10: distribution of prosecution case load between commodities for fatalities (as at 24/3/16)



With the above analysis, we believe that the inspectorate's activities are relatively well spread across the commodity groupings, on a proactive basis. Reactive activities (i.e. investigations and prosecutions) are dependent on events; therefore we believe do not have the same driver for fairness and equity.

4.5 Summary points of '*what does MSB do as a regulator – and should it*?'

In summary, the key points are:

- MSB appears to act within its powers, focusing on the right things. We found this proposition to be well supported through an analysis of MSB's activities over time, which demonstrates a largely fair and equitable consumption of the inspectorate's resources
- The risk-based focus used to deploy inspectorate resources could be formalised to a greater degree. With continued roll-out of SRS, this should become easier, with greater historical reference points that will enable automated 'risk flagging'.

5 Is MSB set-up to succeed?

5.1 What is success for MSB?

A key question posed by the assessment is whether MSB is set up to succeed, which is not easy to answer as there needs to be a common definition of success and what factors contribute to a regulator succeeding. Consultation with industry and DMP indicate to us that there is no one agreed definition of success. All parties concerned settle on the view that an effective, efficient and independent regulator is needed – however, there are competing views as to what this statement means.

Intrinsically, as the safety regulator for the mining sector, success for MSB is arguably tied to the safety performance of the sector. However, based on our examination of MSB's operational plan and DMP's strategic plan *Our Plan for Success to 2018*, we believe that a definition of success has not been appropriately defined. We would have expected DMP's strategic plan or MSB operational plan to answer questions like:

- What are MSB's goals for safety performance improvement?
- What are the key emerging risks that MSB should be tackling or focusing on?
- How can MSB link its interaction with industry to the safety performance of the industry?
- What are the regulatory priorities for the coming year?

Through discussions with DMP personnel, we understand that the structure of strategic and operational planning approaches is set and the intent behind them well understood. However, it was recognised that a broader regulatory strategy has not been developed, which in essence, sits between DMP's strategic plan and MSB's operational plan demonstrating the regulator's focus and success factors.

Recommendation 3

DMP should define what success looks like for MSB as a safety regulator, tied to the Objects of the Act. These success factors and key regulatory focus areas should be detailed in a MSB regulatory strategy that is consulted with industry to enable buy-in and a common understanding.

Without a common view of success, MSB is at risk of not strategically tackling health and safety issues of the industry as it becomes increasingly reactive to operational issues and themes identified through its inspection and audit processes. We agree with the CME's suggestion that a regulatory strategy for MSB would be useful and should be consulted with industry to ensure a common understanding through transparent processes.

Through our consultation processes, we heard a lot of commentary relating to the lack of transparency and accountability of MSB. Some of the comments received from industry appear to reflect the desire to *monitor* MSB's activities. We do not agree with this position, as the foundation of an independent regulator is required (and agreed to by the same industry stakeholders). We believe that these comments are coming from a position of lack of understanding or clarity as to the strategy, priorities and activities of MSB. The regulator is and must remain independent (i.e. regulatory capture must be avoided).

5.2 How has MSB set itself up to succeed?

To assess whether MSB has set itself up to succeed, we considered:

- Is MSB appropriately *structured* to deliver effective regulatory service to industry?
- Does MSB have the *capacity* to regulate industry?
- Is MSB *competent* to manage the risks associated with the mining industry?

Structure

MSB has had a number of homes, having previously resided within Department of Consumer and Employment Protection (**DoCEP**) and, prior to that, Department of Industry and Resources (**DoIR**).

In 2009, RSD was transferred from DoCEP to the newly formed DMP effective 1 January 2009. RSD's MSB consists of a large team of Regional Inspectors, Team Leaders and Inspectors of Mines (specialists and generalists), whose primary function focuses on the regulation of OSH within the mining industry, including inspections audits, educational activities and either conducting or participating in investigations. Enforcement activities, in the form of level one and two investigations and prosecutions, are project managed by teams of specialist inspectors outside MSB as a product of

structural changes three years ago. MSB inspectors are included in these activities depending on the expertise required to investigate appropriately. Refer to Table 8 for details of investigation levels.

To achieve its OSH regulatory service requirements for the minerals sector, the services that DMP provides to industry are separated into a number of teams. The core mining industry tasks undertaken are delivered by MSB. MSB is supported by a number of other divisions, specifically:

- Investigation Services Branch (**IB**), which is responsible for all investigations of DMP – mines safety, petroleum, dangerous goods, environment and mineral titles. The costs of the IB are attributed to the levy through an activity driver allocation
- Legal Services Branch (**LSB**), which is responsible for all legal action of DMP, including briefing the State Solicitors Officer (**SSO**) or appointed external counsel where a prosecution may be required. The small team of legal professionals also undertake a range of legal advisory and prosecutorial activity in-house. The costs of the LSB are allocated based on timesheets. Note, at the time of the assessment, there were two contract lawyers who work solely on MSB work and are paid directly by the levy
- Other service areas, which include finance, records or other support areas, whose costs are allocated on an activity basis.

MSB structure

As at May 2016, MSB's organisational structure includes 67 FTEs, of which eight positions are vacant. Primary roles include Regional Inspector of Mines, Team Leader Inspector of Mines and Inspector of Mines with varying technical disciplines and level of technical expertise.

MSB has adopted a regional approach to structuring the team, with Regional Inspector roles for the West, North and East regions and Team Leaders overseeing Inspector of Mines roles. Specific regional boundaries are available on DMP website[2]. The North region includes all mines, which are north of the Tropic of Capricorn (approximately 117 sites) with inspectors based in the Perth office. The West region includes all mines, which are south of the Tropic of Capricorn, to the west of the state (approximately 217 sites) with inspectors based in Collie. The East region covers the Goldfields area (approximately 98 sites) with the inspectors based in Kalgoorlie. However, we confirmed that some specialist inspectors provide support across the entire State, regardless of regional boundary (e.g. the one Radiation Specialist).

Examining the average site allocation of Inspectors in each region highlights relative consistency in portfolio size (refer to Table 7). Inspectors in the North region provide coverage to approximately six sites each, which are geographically dispersed in the north of the state and contain some of the larger sites. Inspectors in the West region provide coverage to approximately eight sites each, and are significantly dispersed when considering the team members are based in Collie and Perth. The East region inspectors provide coverage to approximately 7.5 sites each and are relatively concentrated in the Goldfields region.

Table 7: inspector portfolio size comparison by across each region, excluding vacant positions

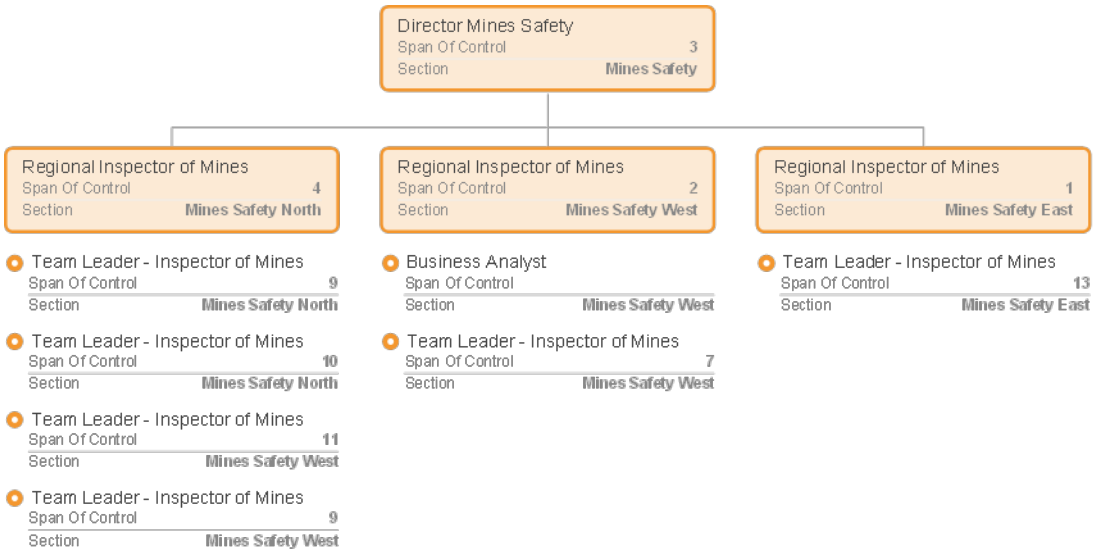
Ratios	Overall	North	West	East
Mine sites : Inspectors	432:59	117:19	217:27	98:13
2016 ratio	7.3:1	6.2:1	8.0:1	7.5:1

Feedback from DMP personnel interviewed indicates MSB team design is considered functional and the size of the team is consistent with other jurisdictions, both in terms of mine sites/employees covered and mining complexity.

However, analysis at the Team Leader level highlights inconsistencies in applying the regional approach, with two Team Leader West roles reporting into the Regional Inspector North position. Analysis of span of control across the Branch (results at Figure 11) highlights inconsistency in team sizing and portfolio allocation (refer to **Appendix I** for detail).

[2] http://www.dmp.wa.gov.au/Utilities/Offices-and-locations-8323.aspx

Figure 11: MSB span of control analysis



The Regional Inspector of Mines – Mines Safety West role has a smaller team size, whilst retaining a Team Leader position – that has seven direct reports, two of which are administrative. We believe there is an opportunity to either remove the Regional Inspector roles and have the Team Leaders report directly to the Director or to combine the Regional Inspector of Mines roles and reduce the FTE from three to two positions, moving five Inspector of Mines positions to align with others reporting through the Regional Inspector of Mines (North) position.

The span of control[3] of the Team Leader roles is, we believe, at the highest threshold in regards to enabling leader effectiveness. Span of control for the Team Leader role ranges between seven and thirteen direct reports, with an average control of 6.9. Given the geographic coverage of each region and the breadth of technical capabilities within each team, effective balancing of team sizing needs to be actively managed. There appears to be a fair distribution of the technical disciplines and level of expertise across each region, however as highlighted above, some technical disciplines may be at risk of being overstretched based upon demand for their skills (e.g. radiation).

In addition to technical capability, additional capabilities have been highlighted above and should be considered in the design of MSB team. Being positioned to respond to emerging trends and risks will be imperative to keeping pace with changes within the mining industry more broadly.

Review of the job descriptions for each role within MSB highlighted limited distinction between the role responsibilities of the three levels of management, which could indicate the potential lack of clarity in role accountabilities and authority. There was also limited difference in the description of key accountabilities between Inspectors with a tertiary qualification versus a trade / vocational qualification, which may warrant review.

Stakeholder feedback indicates effective collaboration within the MSB team, with good opportunity for capability development as a part of the rotational arrangement with the IB team. In this regard, the balance between regional focus and technical discipline (known as the 'matrix system') appears to be working.

Recommendation 4

DMP should review the senior level structure of MSB and consider consolidation at the Regional Inspector level, or alternatively, removal of this management layer and defining clear accountability at the Team Leader level for regional matters. Changes should then be clearly updated in position descriptions.

IB structure

The IB is comprised of safety and compliance sections and has been operating in its current capacity since 2013. IB is separated from day-to-day activities of MSB to promote high standards of investigations, remove the likelihood of perceived conflicts of interest and to remove distraction from day-to-day activities. MSB inspectors are still involved in inspections, depending on the type and nature of the incident.

[3] Span of control refers to the ratio of management to staff in an organisation and is one measure which can be used to assess the efficiency and effectiveness of an organisation's design. A span which is too wide can result in a disconnect between senior leaders and employees and increased stress at a people leader level due to excessive workload. A span which is too narrow can result in micromanagement, a lack of time spent on longer term priorities and higher operating costs. The ideal span of control ratio is not an absolute, and needs to be balanced with the breadth of interests included in a leader's team, but leading practice as highlighted in Deloitte's research (Deloitte, 2008) indicates a span of control between five and eight direct reports, in many circumstances, is optimal.

A separate review of the IB team was undertaken in March 2014, which highlighted required structural changes to address capacity issues and saw the team size increased to 11 FTE. Since its implementation in 2014, the SRS case management system has delivered substantial efficiencies to investigations. At any one time, the IB is responsible for between 12-15 active high-level investigations (level 1 and 2) in addition to working with LSB and the SSO to finalise up to 20 matters in the prosecution process. DMP policies highlight the following investigation levels and responsibilities:

Table 8: investigation levels

Level	Examples	Responsible	Duration of investigation	Outcome
1 High Level	Fatalities, long term disabilities and major occurrences, natural cause deaths	IB	Up to 4 months from date of incident	Detailed Factual Report
2 Mid Level	Serious injuries and occurrences, complaints	IB with support from MSB	4 to 6 weeks from date of incident	Short Factual Report on causation factors, Notices & RBEs
3 Low Level	All other incidents	Mining Company – directed and reviewed by inspector	Within a month of incident	Company report, RBE, SRS close out

Source: DMP Policy documents RS-08-1-002/06 & RS-08-1-001/05

Stakeholder feedback indicates that the current structure (Figure 12) is working effectively and that the secondment arrangement between MSB and IB is assisting with capability uplift for MSB inspectors, as well as building the capacity of the IB to meet investigation requirements.

Figure 12: IB organisational structure *(orange roles are levy funded)*

The organisational design of the IB is flat. Span of control analysis highlights a very broad span of control for the General Manager Investigations role with 11 direct reports. There may be an opportunity to structure a small team under each Lead Technical Investigator, enabling them to assist in coaching and mentoring the inspectors and reducing the span of control of the General Manager to a more effective level.

Current technical capabilities covered within the team include Mines, Mechanical and Process Engineering, and Dangerous Goods, which are supplemented with technical expertise from MSB through the rotation program and through use of MSB inspectors on an as-needs basis for their expertise depending on investigations in train.

Stakeholder feedback indicates that this breadth of capability is meeting the demands on the team.

Recommendation 5

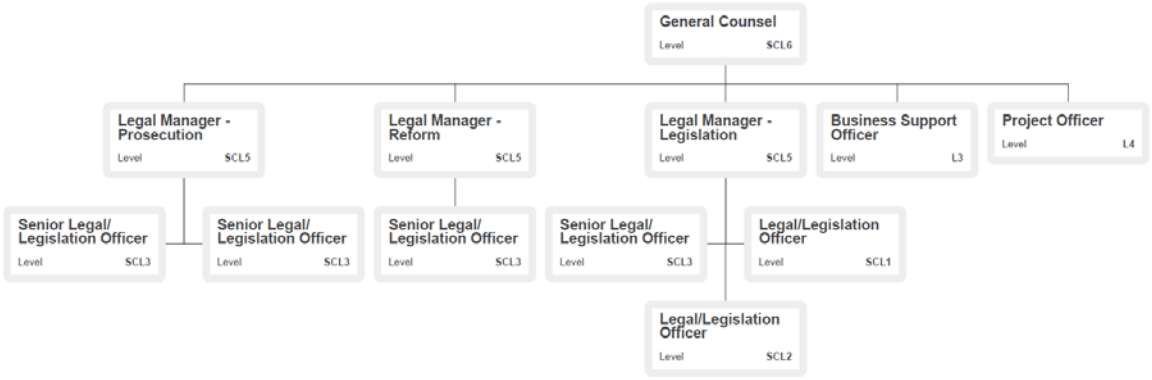
DMP should consider whether a more effective span of control could be achieved through structuring small teams under the Lead Technical Investigator roles.

LSB structure

Within LSB there are currently three roles focused on Prosecution activities, which support MSB's service, one permanent Manager and two contractors. All LSB staff complete timesheets, which is the basis for cost allocation to the levy. The two contractors are directly funded by the levy and solely work on MSB activities.

In addition to these resources, a more flexible approach to resourcing has been embraced, whereby a panel of highly qualified Barristers and Queen's Counsel has been set up to provide additional support to the State Solicitors Office and DMP in terms of assessing prosecution briefs for potential success and taking cases to court.

Figure 13: LSB organisational structure



Span of control analysis for the LSB highlights appropriate span of control and structuring of the prosecutions team as it relates to activities related to Mine Safety, which is supported by commentary from DMP and industry citing that the legal cases are getting better in quality and delivering outcomes.

Structural summary comments

Utilising the Objects as the foundation for determining scope of service, and high-level walkthrough of the processes of MSB, IB and LSB, it appears that DMP has set itself up to deliver safety regulatory services to industry. We believe that moving the IB out of the core inspectorate three years ago was a positive move as it created a layer of independence. The change also provided role clarity and focus for the staff. As a part of the separation of accountabilities three years ago, a rotation arrangement was introduced for Inspectors from MSB to be seconded to the IB for a 12 month period. Feedback on the effectiveness of this arrangement is positive from stakeholders as it supports building inspector capability and has resulted in improved prosecution success rates.

The changes made to resourcing of the LSB (i.e. setting up of a panel to increase outsourcing to competent legal resources) has also seen great success, with commentary from DMP and industry citing that the legal cases are getting better in quality and delivering outcomes.

The recruitment freeze (which has now been lifted) impacted MSB's ability to recruit skilled employees who are available in the WA market because of the downturn in the mining industry. Before commencing recruitment activities, a strategic approach to workforce planning is recommended across MSB, IB and LSB. This approach would involve understanding the demand for critical capabilities across the three teams as well as analysis of supply of these capabilities in the WA labour market. Gap analysis of supply and demand would then enable MSB to ensure critical capabilities were understood and suitable talent strategies developed to enable the sourcing of their skills in a sustainable way.

With flexible talent models becoming more prevalent in the mining industry, including increased use of contract and augmented resources from relevant partners, a more flexible approach is also needed within DMP to meet changing capability requirements. There will be challenges to such flexibility, owing to the constraint of the inspector formational training requirement, which means it can take up to six months before the Minister can formally appoint an inspector.

Recommendation 6

DMP should consider:

(a) Undertaking a more strategic workforce planning activity to understand the demand for critical capabilities and the available supply in the WA labour market

(b) Developing a more flexible approach to talent and supporting talent strategies to enable better responsiveness to changing capability requirements (e.g. establish a pre-qualified panel of inspectorate providers who are able to be appointed by the Minister as inspectors at short notice).

Capacity

Between 2000 and 2012, the number of workers in the WA mining industry increased by 250%, which is now currently tailing off with the move from construction to production. The number of inspectors increased from 39 to 59, with a greater mix of skills to regulate current trending issues, including construction, radiation, ports and process plants. Table 9 details the manning levels since 2009.

Table 9: inspectorate manning numbers since 2009[4], excluding vacant positions

2009	Mar-10	Mar-11	Mar-12	June-13	Mar-14	Mar-15	Mar-16
39	44	63	62	61	64	58	59

As a basis of determining capacity of the inspectorate, we have performed high-level analysis of the number of inspectors in 2009 compared to current 2015 figures – refer to Table 10.

Table 10: inspectorate size comparison by number of workers, excluding vacant positions

Ratios	WA	Qld	NSW	NZ
Workers : Inspectors	70,000:39	38,000:46	34,000:56	n/a
2009 ratio	1,795:1	826:1	607:1	
Workers : Inspectors	103,411:59	45,249:39	28,924:72	1,015:8
2015 (Q4) ratio	1,753:1	1,160:1	402:1	127:1

However, we believe (consistent with the views of DMP) that using the number of workers as a driver for inspectorate activity is not necessarily a true reflection of how the inspectorate deploys its resources. Our reasoning is that MSB's activity and workload is not driven by the number of workers on a site, but rather the site and the mining operation itself. Obviously, an argument can be made that there is a causal link between the two - the larger or more activity on a site, the potential for more workers. However, the site workforce is not the cause for the activity. The number of workers may also not be particularly reflective of activity in autonomous mines, which can be vast in scale.

As an alternative comparative basis, we used a ratio of mine sites to inspectors – refer to Table 11. Note that the analysis is difficult as the definition of a 'mine' is not consistent between jurisdictions.

Table 11: inspection size comparison by number of mine sites, excluding vacant positions

Ratios	WA	Qld	NSW	NZ
Mine sites : Inspectors	432:59[5]	229:39	2,772[6]:72	40[7]:8
2015 (Q4) ratio	7.3:1	5.9:1	38.5:1	5:1

An additional comparison could be made utilising the number of "operating mines" as defined by the Australian Mining Atlas published on Geoscience Australia's website. However, this analysis is similarly constrained as the others undertaken above, insofar that the definition of an operating mine does not appear to factor in the actual mining activity on a site (e.g. one site with multiple pits) or quarries. As such, the number of operating mines does not match to the total number of sites registered with DMP. However, using Geoscience Australia's data we compared the ratio of operating mine sites to inspectors – refer to Table 12.

Table 12: inspection size comparison by number of operating mine sites, excluding vacant positions

Ratios	WA	Qld	NSW
Operating Mine sites : Inspectors	188:59	82:39	85:72
2015 ratio	3.2:1	2.1:1	1.2:1

Based on the above ratios, MSB's inspectors appear to have a slightly higher workload compared to their peers in other jurisdictions – both compared by number of workers to inspectors and number of mines sites to inspectors (excluding the NSW anomaly). Queensland is probably the best comparator for a number of reasons, including the geographical distance issues.

An interesting topic or perception raised during the assessment by industry and some inspectors was the issue of inspectors being constrained by the Public Sector Award's (**PSA**) limitation of working no more than a 7.5 work hour day. The perception is incorrect as the PSA and Public Service and Government Officers General Agreement (**PSGOGA**), through which all DMP staff are appointed, allows for staff to work up to a 10 hour day. We understand that longer days (i.e. up to 12 hour days) can be pre-approved as part of work planning, including when planning site inspections or audits. In

[4] Number only includes inspectors. No support staff, investigative or prosecutorial staff included.
[5] Eight positions are currently vacant, so the ratio is in fact higher based on true workload terms
[6] Note that this number is high as the NSW definition of a mine includes more activities associated with extractive industry, such as borrow pits, than other states (as at June 2015)
[7] Includes tunnels

emergency situations, such as conducting investigations of fatalities, the PSA provides for staff to be able to work the hours required.

Capacity summary comments

Based on the above ratios and discussions with DMP personnel, we believe that the inspectorate has the capacity to deal with current mining industry demands.

Looking at current forecasts of mining activity used to calculate the proposed FY17 levy, the worker to inspector ratio will not change materially – with a result of 1,551 workers to an individual inspector[8]. There are a number of new mines anticipated to come online, which means that the mine to inspector ratio will change, albeit not materially.

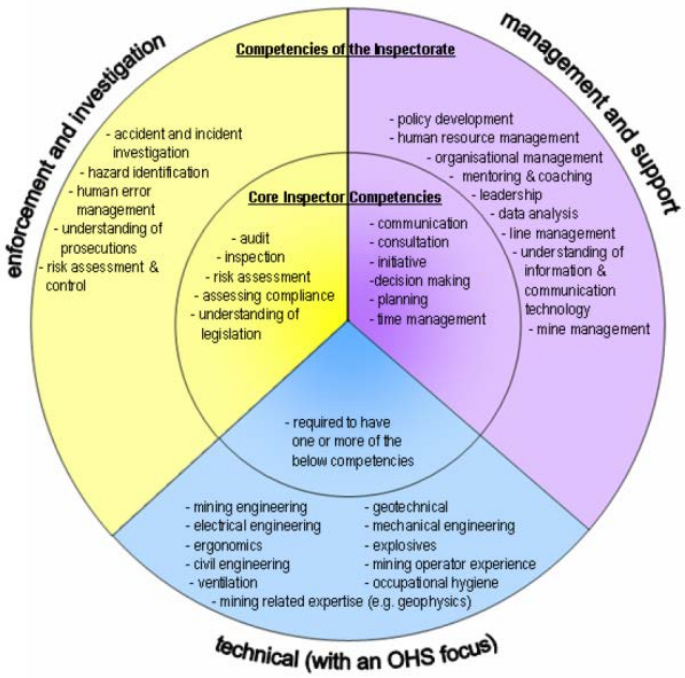
Competency

Competency requirements are highlighted by the National Mines Safety Framework (**NMSF**) Implementation Report (2009) as a crucial element to any mining inspectorate's strategy and delivery of regulatory service. Competency is a crucial element for the successful and appropriate regulation of any industry.

In 2009, the Kenner Report highlighted a perceived issue in the competence of the inspectorate and in the competence of mine statutory position holders. The Kenner recommendations formed the basis of the RADARS reforms, which put into motion a training and development program comprised of formational, operational and strategic training.

These training plans were developed to help inspectors acquire nationally recognised compulsory Diplomas (Diploma of Government (Workplace Inspections)[9] and Diploma (OHS)) consistent with the National Mines Safety Framework (NMSF) Implementation Report, which is illustrated by Figure 14.

Figure 14: competencies that should exist within the ideal inspectorate (NMSF 2009)



Kenner recommended[10] that the mining engineering discipline remain a core competency for the most senior level in the Inspectorate, supported by other specialist and generalist disciplines. He also recommended[11] that specialist inspectors be recruited to support the mining engineering core and senior competency, including other engineering disciplines (e.g. geotechnical, mechanical, electrical, structural), radiation, noise and vibration specialists, ergonomists and organisational psychologists.

We found that MSB has largely actioned the competency-related Kenner recommendations by hiring a diverse range of skillsets. The recruitment activity and diverse skillset hiring approach has been positive enabled through the fixed term, three year contracts. However, we believe that there are still gaps in the competency of the inspectorate to deal with current and emerging hazards – for example, psychosocial risks, being the current emerging hazard getting significant focus in the industry. We also found that MSB currently only has one radiation specialist for the state who is responsible for approving Radiation Management Plans (RMPs, approximately 20 per calendar year) and performing other radiation monitoring activities.

[8] 183,103,831 hours divided by 2,000 hours per quarter = 91,552 workers. 91,552 workers divided by 59 inspectors = 1,551 workers to each inspector.
[9] Has been discontinued by the Australian Skills Quality Agency effective 6 March 2016.
[10] Recommendation 22
[11] Recommendation 32

In addition to broadening the inspectors technical competencies to respond to new and emerging risks, in order to deliver on strategic plans, additional competencies are required within MSB. Soft skills have been a focus of formational training for the inspectors, including stakeholder management, change management, negotiation/conflict resolution, and report writing. Additional skills that could be further developed could include: data analytics, project management and workforce/ resource planning. As MSBs' legislative landscape changes, particularly with WHS harmonisation, the skill sets of the inspectorate may need to change as well.

Recommendation 7

Once the harmonised legislation is drafted, MSB should undertake a skills assessment to ensure it is has the appropriate mix of skills to deliver its regulatory service to industry. The assessment should:

(a) Define the competencies that are required within the ideal inspectorate

(b) Undertake a skills-based analysis of the inspectorate against these requirements

(c) Develop a skills training programme to fill any skill gaps or recruit skilled personnel as required.

The skills assessment process should then be regularly undertaken to confirm suitability of the current skillsets of the inspectorate. We would suggest undertaking as part of the regulatory strategy development and review.

Kenner recommended[12] the amendment of the *Public Sector Management Act 1994 (WA)* (**PSMA**) to enable appointment of fixed term contracts, increased and industry-correlated remuneration, key performance indicators (**KPI** or **PI**) and individual training and development plans for the inspectors, which were put into force in 2010/11 as part of RADARS. In order to attract talented inspectors from industry, Attraction and Retention Incentives (**ARI**) contracts were introduced. The architecture of the ARI PI framework was developed as part of the RADARS reforms, in consultation with CME WA. Inspectors on ARI contracts are paid an ARI performance payment when they achieve an agreed upon number of ARI PIs (23 available).

The inspector's ARI PIs are linked to DMP's 'Capability Framework', which consists of five capabilities applicable to all level ranges, including: shapes and manages strategy, achieves results, builds productive relationships, exemplifies personal integrity and self-awareness and communicates and influences effectively. These ARI PIs are grouped into three broad categories as demonstrated in Table 13 below. The table provides examples as to the types of ARI PIs that can be selected.

Table 13: summarised examples ARI PIs

Operational Excellence			Interpersonal skills	Professional development
No. & quality of inspections [Site Visit Records (SVRs)]	No & quality of investigations	Development of Codes of Practice/Guidelines	External stakeholder engagement	Completion of training modules
No. & quality of audits	Complaints handled	Development of audits	Feedback from other inspectors	Diploma achievement
No. & quality of Improvement Notices (IN)	Safety & Health Representative contacts	Workshop and working group activity	Coaching records	SRS competency related measures
No & quality of Prohibition Notices (PN)	Compliance notification closeouts		Buddy records	Public speaking/ education

ARI PIs are a link between individual roles and the operational plan for MSB. Each inspector has an individually agreed number of ARI PIs to achieve in a six month period (note: this may change to a 12 month period as an effort to streamline the process, but has not been agreed). Achievement of these KPIs must be demonstrated through formally documented evidence (e.g. of inspections, audits and other work), which are evaluated by an independent ARI Panel. The Panel is comprised of DMP management and industry representatives and is responsible for determining whether inspectors have met the requirements to trigger their ARI payments. The ARI payment is divided into two parts: base (40%) and milestone (60%), weighted to promote exemplary performance. Persistent non-achievement of ARI PIs may result in access to ARI payments being ceased or contracts not being renewed.

ARI was designed to reward results, but inspector feedback suggests it has turned into punitive, 'red tape' for the inspectors. We also heard that the process consumes considerable time when the review period is approaching because of preparing documented evidence to show they have achieved their outputs to a satisfactory quality. An independent review of the IB (Price, 2015) reported similar commentary - "*the ARI system received a lot of airtime from the staff in regards to how KPIs can discourage staff from focussing on*" their work. Other commentary provided during our interviews with inspectors included:

[12] Recommendation 43

- *"The ARI process is being used as a performance management tool (punitive, disciplinary) rather than a tool designed to demonstrate exemplary work"*
- *"Each time the ARI is due, it can take weeks of time to develop the material needed to demonstrate achievement of KPIs"*
- *"Inspectors will ensure that no site visits are scheduled when ARIs are due – ensuring several weeks are free for office work"*
- *"ARI evidence is only a snapshot – you only provide one piece of evidence to demonstrate attainment of each KPI".*

Based on discussions with DMP leadership, it appears to be a consensus view that the ARI submission should not be a lengthy, drawn out process and should be viewed as a performance management tool as inspectors eligible for ARI are not required to undertake Work Development Plans (WDPs – being a broader DMP performance management tool). We confirmed that only one piece of evidence is required to demonstrate performance against a defined ARI PI. Note that we tried to undertake analysis of the volume of hours that inspectors attribute to ARI, however as timesheets are not broken down into separate activities, we can only comment anecdotally, based on interviewed inspectors' feedback.

It appears that further work is required between the leaders and inspectors to ensure the right amount of time and effort is applied to these tasks. The inspectors interviewed commented that there is a need to clarify what is actually required to demonstrate that the ARI PI has been achieved.

Recommendation 8

DMP could consider redesigning the ARI process. Potential options could include:

- An ongoing quality assurance process, whereby an experienced inspector reviews activity through SRS for consistency, accuracy and relevance. The ARI panel then reviews these results
- The ARI panel utilises SRS and randomly selects inspector activity for assessment, thereby removing the burden on the inspector and increasing the independence of the review.

Should the process not be redesigned, DMP should:

(a) Review the ARI PIs to ensure they align with MSB's newly developed regulatory strategy (refer to Recommendation #3)

(b) Monitor inspector time attributed to the ARI process to ensure it is fit-for-purpose

(c) Automate as much of the evidence collection process as possible.

Competency summary comments

Based on discussions with DMP and examination of competency related material, we believe that the inspectorate has inspectors with the competency needed, at present, to deliver regulatory service to industry. However, as the legislative landscape changes, DMP will need to reconsider how the inspectorate ensures that the rights skills are maintained, commensurate with the requirements of industry. A good example is the drive towards autonomous mining and DMP releasing guides as to how to manage OHS in this new operating paradigm.

We believe that there is work required on the ARI process. We have identified some potential, viable alternatives that would increase the independence of the assessment program and perhaps alleviate the perception that the interviewed inspectors have of the burdensome process.

Fit-for-purpose tools

The primary tool for the RSD is the industry-regulator online platform, known as SRS. SRS is described by DMP as a "*corporate business system that aims to provide an integrated and efficient management environment for safety regulatory process within the Department*". SRS has been under development since 2010 with various modules being progressively released. It is a good example of digital transformation of government.

SRS has enabled MSB to be able to perform its functions more effectively and has been instrumental in MSB's ability to regulate mines safety using an evidence-based and risk-based approach in a more coordinated fashion (i.e. with other divisions of DMP). Walkthroughs of SRS with inspectors highlighted the functionality and the potential usability of the tool to enable inspectors' work.

SRS has been a strong step forward for the inspectorate, enabling timely two-way communication between industry and the inspectorate. Site Visit Records (SVRs) have replaced Record Book Entries (RBEs), which are a legal requirement upon completion of a site inspection. SRS enables creation of SVRs, linked to audits, notices and, if required, to the investigations' case management system. Refer to **Appendix J** for a development timeline of SRS, which provides further granularity as to the modules released and project costs, which to date total $12.11M.

Interviews with inspectors highlighted that the core suite of policies and procedures that are used to guide the regulatory process are largely outdated or not used by the inspectors. We are not suggesting that the inspectors are not undertaking tasks in alignment with DMP expectations, rather that the

documents in their current state are not operational. We understand the primary reason for this is the translation of the procedures into a QMS and into SRS workflow, as well as the push towards harmonisation. As part of the uploaded process, the documents are being reviewed for currency.

5.3 Follow-up of the Kenner Report

Section 110 of the MSIA requires a statutory review of the Act to be undertaken as soon as practicable after 1 December 2009 and every fifth anniversary of that day. In 2009, a statutory review of the MSIA was reported by Commissioner Kenner.

The Kenner Report represents a key moment in DMP's history as it challenged a number of activities and processes and resulted in a significant amount of action within MSB to drive better and more consistent safety regulation of the industry. The Kenner Report sought to make recommendations that would improve the structure, capacity and competence of MSB.

We found that a statutory review of the MSIA has not been undertaken since the Kenner Report, which pre-dates the requirement of section 110 of the MSIA – now two years overdue. We understand the review has been postponed because of the harmonisation processes currently underway. DMP acknowledges that this is technically a breach of the MSIA; however believes that it is appropriate to wait until the new Act has been implemented. We agree with this approach, insofar that it would be a waste of resources to examine the appropriateness of the MSIA when it is soon to be outdated.

The terms of reference for the Kenner review related to the operation and effectiveness of the MSIA and consider:

(a) The attainment of the Objects of the Act

(b) The effectiveness of the operations of the Department, the Board of Examiners and the Mines Survey Board

(c) The need for continuation of the functions of the Boards referred to in paragraph (b)

(d) Such other matters as they appear to be relevant to the operation and effectiveness of the MSIA.

The Kenner Report made 119 recommendations to improve WA mine safety after a number of fatalities in the industry. In response, DMP initiated a reform agenda, entitled RADARS, which tackled the Kenner Report findings in three groupings - competency, capacity and legislation. Examples of such reform recommendations included:

- Continued progress in relation to the implementation of the harmonised standard is OSH in the mining industry though the principles and strategies of the National Mines Safety Framework (**NMSF**)
- Addressing a perceived issue in the competence of the inspectorate and in the competence of mine statutory position holders (i.e. First Class Mine Managers, Quarry Managers, Authorised Mine Surveyor, etc.) in which he highlighted the importance of the Board of Examiners for the short to medium turn with a push to a competency-based framework in the future
- Training and development program for the inspectorate comprised of formational, operational and strategic training. These training plans were developed to enable inspectors to acquire nationally recognised compulsory Diplomas: Diploma of Government (Workplace Inspections) and Diploma (OHS)
- The need for a recruitment drive to bring the ratio of inspectors to workers on mine sites on par with the New South Wales and Queensland inspectorates. In order to do this, Attraction Retention Incentive (**ARI**) contracts were introduced and made possible through negotiations with the Public Sector Commission and the Department of Commerce.

Status of the Kenner recommendations

It has been seven years since the Kenner Report was finalised and recommendations issued. DMP was not required to formally respond to or detail corrective actions, assign responsible owners and due dates to the Kenner Report. We observed that there was no formal process in place to monitor and report on the status of the Kenner Report recommendations or any agreed actions.

As part of our assessment, we were tasked with following up the status of the Kenner recommendations. We carefully considered the status of the 119 recommendations and based on evidence provided, examination of the MSIA or MSIR (as applicable) and discussions with DMP personnel, we believe that 43% of the recommendations have been actioned. 18% of the recommendations are currently ongoing and intended to be completed with the introduction of the harmonised WHS legislation, while 10% are considered to have been superseded by changed circumstances and be no longer relevant. However, we believe that 29% of the recommendations are still outstanding.

Table 14: status of Kenner Report recommendations

Status	Number	Percentage
Completed	51	43%
Ongoing	21	18%
Not completed but still relevant	35	29%
Not completed but believed to be not relevant	12	10%
Total	**119**	**100%**

In summary:

- Most recommendations that have been actioned are internal management actions, focused on the development of MSB's team or internal process, such as:
    - The recruitment drive using ARI fixed term contracts with a payment to increase the pay, which were linked to the completion of training and proof of meeting ARI Performance Indicators (**ARI PI**)
    - The inspectors were put through training programs
    - In order to improve business processes, two-way communication with industry, knowledge and data management, the online Safety Regulatory System (**SRS**) was created.
- 57% of the Kenner recommendations have not been implemented. We believe that 10% of these recommendations are irrelevant because they are now obsolete (e.g. legislation changes) or the superficial nature of the recommendation (e.g. role title changes)
- Most legislative changes have not been enacted because of the work being undertaken on the harmonisation process. Changes that have been made to the legislation related to areas like removal of the need to vote in Employee Inspectors, with an equivalent role created, which can be appointed by the Minister (as for all other inspectors). Assistant Inspectors have also been repealed. One legislative change of note, which contradicts Kenner's recommendation (#22), is the repeal of MSIA s18(2), which requires District Inspectors to be mining engineers who hold a First Class Mine Managers Certificate of Competency (FCMMC).

Recommendation 9

DMP should establish a mechanism to identify, track and formally report on the status of recommendations and corrective actions.

Reporting of implementation status against agreed timeframes should be reported to DMP Executive and Audit and Risk Committee, with a summary report to Mining Industry Advisory Council (**MIAC**) and the Ministerial Advisory Panel (**MAP**), as appropriate.

5.4 Summary points of '*is MSB set-up to succeed*?'

In summary, the key points are:

- It appears that MSB is largely set-up to succeed. However, we temper this comment as the definition of success is somewhat arguable and has not been formally documented
- The inspectorate is not overstaffed when compared with its peers (specifically Queensland) in other jurisdictions. The 2015 industry worker to inspector ratio is relatively consistent with that identified during the Kenner assessment in 2009 (1,795:1 in 2009, 1,753:1 in 2015). We believe that a ratio of mine sites to inspectors provides a more meaningful representation of inspectorate capacity, which currently sits at 7.3:1. With this measure, the inspectorate appears to be appropriately staffed from a capacity perspective, with additional skill sets engaged to meet the needs of industry and the emerging risks being experienced
- The LSB appears to be appropriately structured to deliver service to industry, with appropriate spans of control. MSB structure appears largely appropriate. Analysis of span of control across MSB and IB (results at Figure 11 and Figure 12) highlights some inconsistency in team sizing and portfolio allocation
- The current ARI process appears to be administratively burdensome. We have recommended a number of potential changes to the ARI process, which would increase the independence of the process as well as reduce the actual/perceived impact on the inspectors
- With the introduction of QMS, MSB's suite of policies and procedures are being reviewed and updated prior to upload. MSB should ensure that the regulatory intent and mapping to the MSIA and MSIR (or future WHS legislation) are accurate
- SRS is driving process work-flow, completeness and consistency

- Much of the Kenner Report has been actioned, but some recommendations are obsolete, some not implemented and many in abeyance pending potential future harmonisation
- Overall, MSB is appropriately resourced and structured, so is able to efficiently and effectively achieve the objects of its legislation.

6 How well does MSB operate as a regulator?

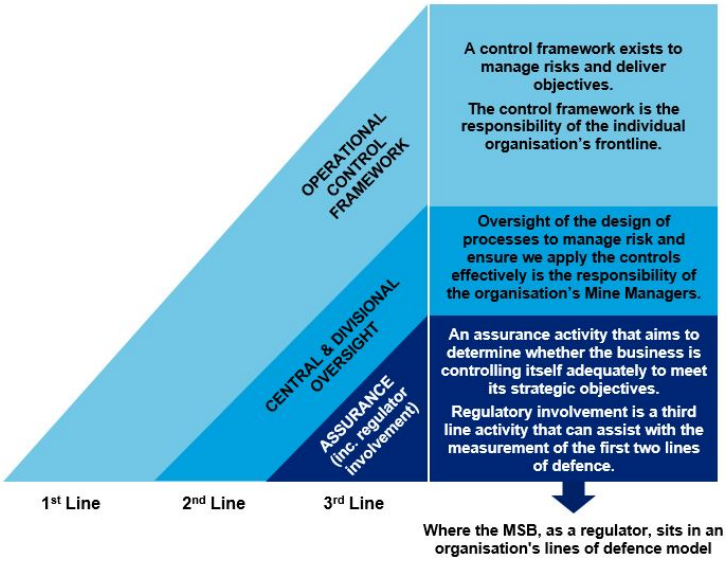
6.1 What is performance for a regulator?

Performance for a regulator is arguably a simple one – has it successfully delivered the policy objectives and regulatory outcomes sought? While overly simplistic, it can be a good high-level measure, but it is hard to quantify.

For MSB, the above overly simplistic approach would mean a measure of "has MSB prevented fatalities and injuries in the mining industry in WA?" However, prima facie, it cannot be argued MSB can claim all the credit for industry performance since MSB is just one component of the risk framework that manages health and safety in the mining sector.

Figure 15 outlines the three lines of defence (3LOD) model that is commonly used in risk management activities. The model articulates 3LOD that prevent a risk event occurring as well as providing an organisation's decision-makers with information to enable robust and well-considered action. The figure shows, through the size of the 'wedge', where the majority of effort should be applied by an organisation – with the third line of defence being the smallest. Conceptually, in a 3LOD model, regulator involvement, whether it is audits, educational activity, inspections or investigations sit in the third line and help inform the first two lines.

Figure 15: three lines of defence model



It is primarily the responsibility of industry – and specifically those charged with the 1LOD of site responsibility, such as the statutory positions of Underground Mine Manager (FCMMC holder) or Quarry Manager (Quarry Manager Certificate holder) - to implement measures that reduce risk and the propensity for injury within its business. The 1LOD has a strategic control framework to promote safe systems of work and safe workplaces, with coal-face controls as close as possible to the risk itself such as PPE, Take 5s and safety management systems.

MSB can provide guidance, influence decision-makers, enforce specific actions to be undertaken or prosecute those that they have reasonable cause to believe have failed to live up to their legislative duty and community expectations, but it can only be a third line of defence. Primary responsibility remains with organisational management.

"Effective regulatory administration supports achievement of key policy objectives while minimising the burden and compliance cost for regulated entities. Well-functioning regulators have a clear understanding of the regulatory outcomes being sought, apply a risk-based approach to regulatory administration, effectively engage with stakeholders to share and collect information, use information as a source of intelligence to guide regulatory activity, are transparent in their approach, accountable

for their actions and decisions, and monitor and report on their performance and the effectiveness of the regulatory regime" (ANAO, 2014, p.13).

According to the ANAO's *Better Practice Guide for Administering Regulation* issued in June 2014, there are seven issues that need to be considered for managing regulatory performance:

Table 15: ANAO better practice guide for managing regulatory performance (ANAO, 2014)

#	Issues	Summary guidance
1	Defining regulatory outcomes and administrative priorities	The objectives of regulatory regime should be clearly outlined in the legislative instruments and communicated to key stakeholders.
2	A risk-based approach to regulatory administration	Risk management is an integral component of good regulatory administration and underpins almost all regulatory activity, focusing effort and resourcing.
3	Effective stakeholder relationships	Effective stakeholder interactions and relationships rely on a regulator identifying key stakeholders, the value of engagement and how best to undertake engagement activities.
4	Effective information management	Effective regulatory administration is based on sound information management practices, including: the collection and retention of relevant data to support regulators in identifying and managing risks, making regulatory decisions, and evaluating regulatory administrative strategies and practice.
5	Transparency and accountability	Regulators are required by government to be transparent and accountable in their decision-making processes. This places an obligation on regulators to provide a broad range of information to regulated entities and other stakeholders, unless there is a compelling reason for the information not to be disclosed.
6	Managing regulatory capability	Regulators need to have a clear understanding of their role and function, and the skills and capabilities required to achieve the Government's desired policy objectives. This knowledge can guide a regulator's workforce planning, including the training, development and retention of its officers, and the targeted recruitment of persons with the skills required to fill identified gaps.
7	Measuring, reporting and evaluating regulatory performance	Central to a regulator's operational effectiveness is a sound performance management framework. The framework not only facilitates effective internal management of the agency, but also enables the regulator to demonstrate to stakeholders that its operations conform to legislative requirements, are cost-effective and are achieving the desired regulatory outcomes.

We used the above Australian accepted better practice information to guide our assessment of DMP's approach to performance management and reporting.

We found during the assessment DMP has some good practices in place to address the ANAO's better practice guidance, such as information management with the implementation of SRS and focusing activities using a risk-based approach. However, we believe there are significant gaps in terms of defining regulatory outcomes, which tie to performance reporting and operational measurement. Our thinking is explained below.

6.2 Key Performance Indicators (KPIs) and measuring performance

DMP's three-year rolling strategic plan entitled *Our Plan for Success to 2018* details five pillars, with the first being 'building confidence with stakeholders and the community'. One of the supporting strategies is to 'include stakeholders in our processes to build shared understanding and confidence in the outcomes'. Therefore, we believe appropriate levels of reporting and transparency are not only a key foundation of being a regulator, but that DMP has committed to engaging its stakeholders.

DMP produces the *Resources Safety Achievements and Performance Report*[13] on an annual basis. The report collates individual inspector ARI PIs, which are aligned with the inspectorate's operational plan. The report was introduced as part of the RADARS reforms to provide transparency to industry because of the cost recovery approach. Prior to FY11, this level of public reporting of inspectorate activity was not undertaken. The report provides details of DMP's:

- Income and expenditure associated with mining safety and health, as it relates to the activities covered by the Mines Safety and Inspection Levy

[13] http://www.dmp.wa.gov.au/Safety/Resource-Safety-publications-16440.aspx

- Performance metrics and work undertaken by MSB during the financial year.

The current metrics reported to industry through the Resources Safety Achievements and Performance report are:

Table 16: DMP MSB performance indicators

Function or activity	Indicator
Complaints about workplace health and safety	Number of complaints received and resolved.
Notifiable incidents	Number of incident reports received and processed.
Investigations	Number of investigations conducted.
Inspections and audits	Rate of close-out of notices issued by inspectors.
Approvals	Technical assessments and response concluded within 30 working days for: • Project Management Plans • Radiation Management Plans • Mechanical, structural and geotechnical engineering.
Training	Number of inspectors who have completed scheduled training.

While the above indicators may, prima facie, appear to provide an indication as to the works undertaken by MSB, they are not performance measures. Performance measures are tied to strategic or operational objectives and are SMART (Specific, Measurable, Actionable, Relevant, Time-bound). The 'activity' reported in the annual performance reports provide details as to the volume of activity (e.g. in FY15 58 formal complaints were dealt with, 2,612 site inspection carried out, 802 technical assessments and reviews undertaken) with no specific measure of the outcome or performance of the task.

Recommendation 10
MSB should establish a set of SMART Key Performance Indicators tied to its regulatory strategy, which are focused on the performance outcomes not output of processes for public reporting.

We also examined MSB's FY16 operational plan. The operational plan provides a link to DMP strategy and the specific actions that MSB, as a branch of RSD, will commit to achieving in the financial year. For example, strategy ID 2.2 of the operational plan highlights a strategy of "*meet future departmental needs through a skilled, diverse and flexible workforce*". To achieve this strategy, MSB has committed to two actions with associated measures of success:

Table 17: sample divisional strategy and measures

Divisional action	Divisional measure of success
Undertake workforce planning to meet industry, government and departmental needs.	Workforce developed, based on workforce plans and operational requirements.
Focus performance management to be outcome and results orientated.	ARI and WDP processes are aligned with the desired outcomes and completed within required timeframes.

However, consistent with the public reporting observation above, it does not provide specific, measurable performance measures that enable active monitoring of MSB's performance over the year. While we acknowledge that an operational plan details the high-level actions that are planned for the financial year, we believe that the plan should detail specific actions that MSB will be held to account with defined, SMART KPIs. Providing greater clarity in this process will assist with defining regulatory outcomes and administrative priorities, which is highlighted as the number one issue by the ANAO.

Through consultation with industry, we found that the current operational plans and priorities, as they are not made public, are not well understood by industry. We believe that the development of a regulatory strategy (refer Recommendation #3) detailing the focus areas and priorities, which is made public in the spirit of transparency and accountability (ANAO issue 5) and reporting performance (ANAO issue 7) will address these concerns, as it demonstrates a foundation for the decision-making process of the regulator.

We also found, from an examination of the suite of documentation provided by MSB, there appear to be no drivers for, or performance reporting against, efficiency and effectiveness indicators specific to

MSB. There are indicators in DMP's Annual Report (2014-15)[14]; however these are aggregated measures relating to minerals, petroleum and dangerous goods. As will be discussed in section 7 of the report, the levy model does not provide for cost containment or efficiency/effectiveness considerations, nor does current operational planning or performance reporting metrics.

As MSB is funded through a cost-recovery regime, we propose DMP should have implemented efficiency and effectiveness requirements that drive efficient and effective processes and actions within the inspectorate.

While we are not suggesting that DMP is not efficient and effective in its regulation of the WA mining industry, MSB is currently not in a defensible position to respond to industry claims of the branch not containing costs.

Recommendation 11

MSB should develop and publish a range of efficiency and effectiveness KPIs that focus inspectorate activity on delivering the right thing, at the right time in an effective and efficient manner.

6.3 Managing stakeholders – industry insight on MSB performance

The ANAO Better Practice guide highlights effective stakeholder relationships as the third issue that regulators need to tackle. Necessarily, regulators have to interact with a range of stakeholders, each with differing agendas and points of view, whilst maintaining independence and regulator integrity.

In 2010, DMP started implementing the RADARS program. As a part of this program, DMP started surveying stakeholders every two years to determine perceptions regarding the role of Resources Safety. The survey was last conducted in 2014 and was being undertaken at the time of the assessment. The 2016 survey will be the fourth survey conducted.

The 2014 survey was completed by 293 mining managers and other professionals as well as 255 elect safety and health representatives from the mining industry. High-level examination of the survey results provided some interesting insights. For example, mining professional respondents rated MSB at (out of 10) 6.2 for being a proactive safety regulator and 6.0 for adding value to the respondents organisation. Questions for these aspects of the survey related to:

- Monitoring health surveillance programmes
- Being willing to provide guidance and act as mentors
- Being available to answer queries when needed.

The mines safety and health representatives rated MSB similarly to the mining professionals, providing a rating of 6.5 for both being a proactive safety regulator and adding value to the representatives' organisation.

From discussions with MSB personnel and examination of operational plans, we were unable to evidence how the above feedback from industry stakeholders is factored into the plans and performance expectations of the regulator.

6.4 How much credit can regulators take for good safety?

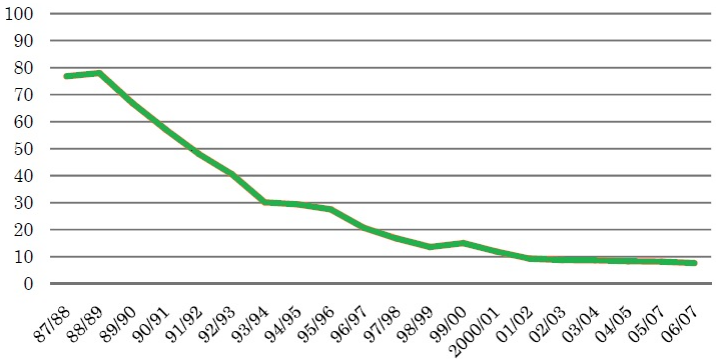
Safe Work Australia (2015) has published data showing the cost of injuries to workers and government is several times higher than the cost to employers. Overall, including workers' compensation premiums, employers still bear only around one fifth of the total costs of workplace injuries. The total cost of workplace injuries and illnesses in Australia in FY13 (most recent study) was $61.8 billion. Of this, employers only bore $11.5 billion (19%), government / rest of society bore $2.4 billion (4%) and workers bore $47.9 billion (77%) (Safe Work Australia, 2015, p.15).

According to Sparrow (2000, p. 40) a regulatory strategy "*based entirely on persuasion and self-regulation will be exploited when actors are motivated by economic rationality".* Hence governments require employers to pay workers' compensation and to comply with rigorous health and safety regulatory requirements.

After the current Robens-based[15] OSH laws (i.e. MSIA/MSIR) were introduced for mining in WA in 1990[16], mining serious injury rates fell almost eight-fold over the subsequent decade – a period of time too short for technological change to have made such a major change to safety[17]. Accordingly, we conservatively assume that, in the absence of DMP's effective regulations and enforcement, fatality rates would be at least twice as high as they are currently.

Figure 16: serious incidents per 1,000 mine workers in WA, 1987 to 2007

[14] http://www.dmp.wa.gov.au/Documents/About-Us-Careers/Department_of_Mines_and_Petroleum_Annual_Report_2014-15.pdf
[15] The Robens Report (1972) was issued in the UK and proposed legislation that was less prescriptive, moving away from technical, detailed specification standards.
[16] While the MSIA was not promulgated until 1994, its core features were introduced in a 1990 amendment to the then Mines Regulation Act (Gilroy, 2008).
[17] Further, to the extent that new technology did improve safety, it is arguable that the introduction of such technology may have been driven by regulatory requirements. Current OHS regulations are based on Robens principles.

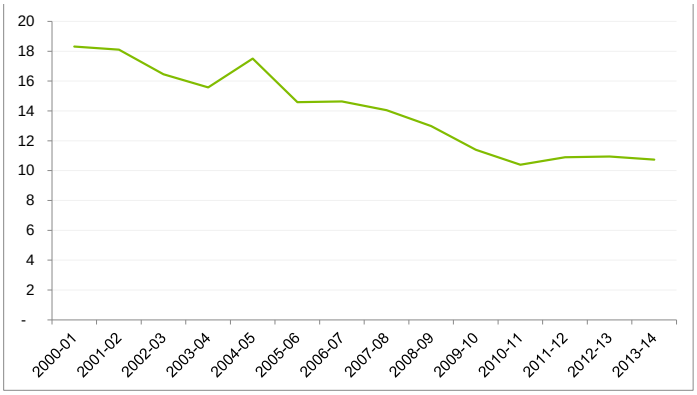


Source: Gillroy, 2008

6.5 How effective has MSB been in improving safety rates?

Figure 17 demonstrates that mine safety has improved by almost 40% since 2000-01, which is an unambiguously impressive achievement. The average annual improvement in safety over this period has been 3.8%. Overall, this trend has not changed substantially following the Kenner reforms, with average annual improvements in safety since 2009 being 3.5% (although most of this improvement occurred in the years immediately following 2009, with little change since).

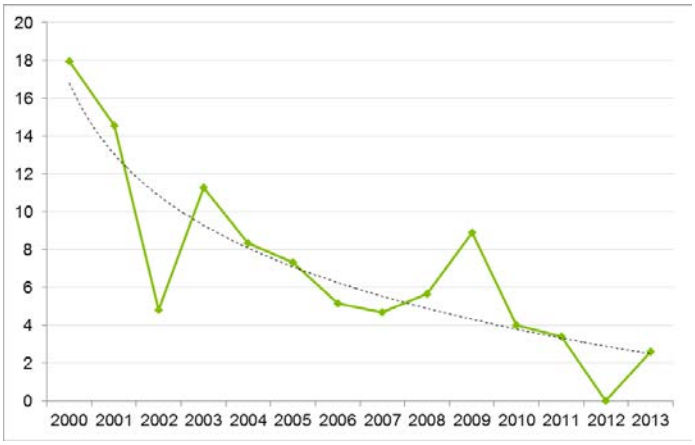
Figure 17: serious incidents per 1,000 mine workers in WA



Source: Safe Work Australia, special data request

Also over this period, death rates have plummeted (Figure 19). WA reported its first ever fatality-free year in mining in 2012.

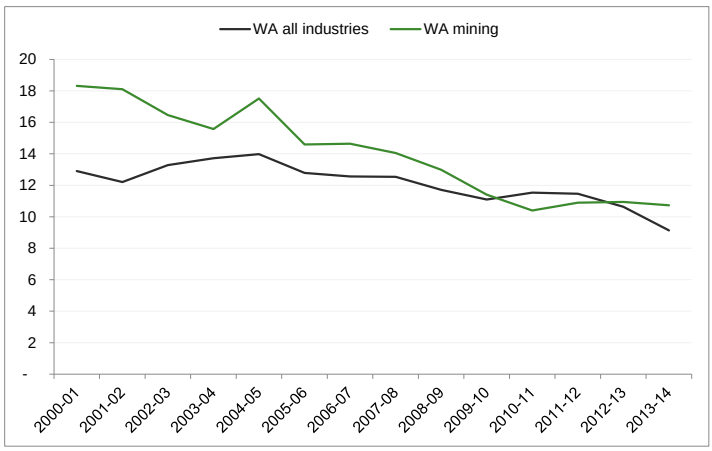
Figure 18: fatalities per 100,000 workers



Source: Safe Work Australia, special data request

There are two salient comparisons here. Mines in WA compared to mines in other states as well as mines in WA compared to other industries in WA. In addition to improving in absolute terms, mine safety in WA has improved better than other industries. In recent years, a miner in WA has become safer than the average worker in all other industries based on volume of reported incidents.

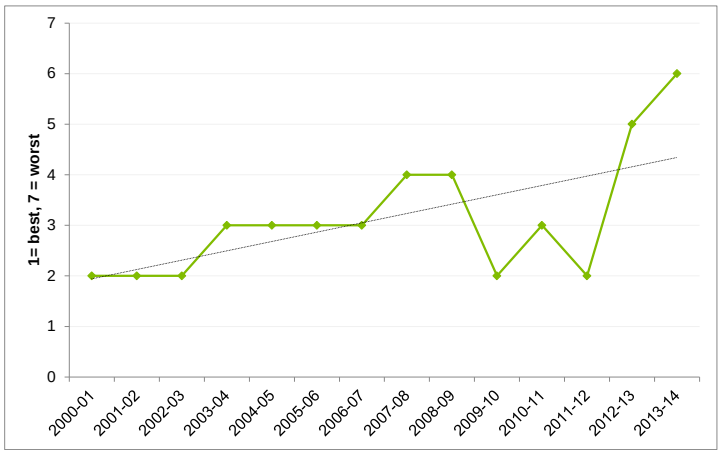
Figure 19: incidents per 1,000 workers in mining vs. all industries



Source: Safe Work Australia, special data request

However, mine safety improvements in WA, good as they are, have lagged behind other states. In 2001, Safe Work Australia data[18] showed that WA mines had the second highest levels of safety in the nation, in terms of incidents per 1,000 workers. But by 2014, they had slipped to having the second worst safety levels[19] (refer to Figure 20). In 2001, the average incident rate in other states was twice that of WA. But by 2014, mining incident rates in WA were 17% higher than the average of other states. By way of comparison, over this period, NSW and Queensland have had little change in relative rankings. NSW fairly consistently had the worst or second worst safety record, and Queensland was generally third best.

Figure 20: WA relative mine safety rankings



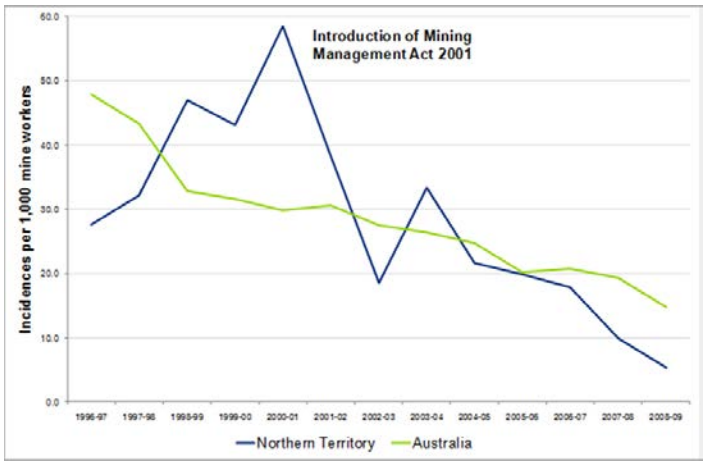
Note: thin dotted line indicates trend
Source: Safe Work Australia, special data request

There are two types of factors that determine safety outcomes at any given time and location – and they can be difficult to disentangle:

- Relatively constant factors, for example, underground coal mining is inherently more dangerous than open cut metalliferous mining. Since it takes around 12 years to open a new mine and the average mine has a lifespan measured in decades, the mix of mine types in a State is likely to remain relatively constant over the short term
- Variable factors such as the nature of mine safety regulations and how effectively these are enforced. The impacts of new mine regulations can be rapid as illustrated by Figure 21. Other variable factors can include new technologies. For example, in a world first, WA now has mines where all the iron ore is moved by driverless trucks, which had previously been a dangerous job because of driver fatigue.[20] Changes in information management can have substantial impacts too. For example, Deloitte helped Goldcorp Inc. (one of the world's largest gold mining companies) to reduce injuries by 76% over six years through using Big Data to identify and remedy risk factors.[21]

[18] Special data request, Safe Work Australia
[19] The mining sector in the ACT consists of one gravel quarry, so it is not included in the rankings.
[20] http://www.abc.net.au/news/2015-10-18/rio-tinto-opens-worlds-first-automated-mine/6863814
[21] http://www.canadianminingjournal.com/features/a-look-at-safety-analytics/1002577365/?er=NA%20

Figure 21: changes in mine safety in the Northern Territory following changes in safety legislation



Source: Safe Work Australia, special data request

Any point in time comparison between two states does not allow the relative contributions of the nature of the mines themselves and the impacts of regulation to be separately identified. For example, if State A has a worse safety record than State B, but also a higher proportion of more inherently dangerous mines, it could say that the poor safety is because of the nature of its mining operations, when in fact it could be owing to poorer regulation.

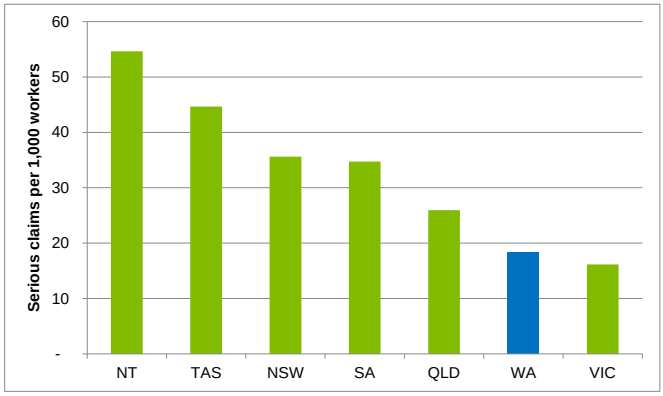
Observing changes in safety over a few years can separate out these effects. As the mix of mines in any given state is unlikely to change substantially over a few years, any short term trends in safety are most likely to be due to variable factors such as mining regulations and enforcement. For example, Australian exports of coal, iron ore and other ores (all dominated by WA) grew by roughly similar proportions between 2000 and 2010 (Reserve Bank, 2011)[22].

Given this lack of compositional change, the fact that WA has gone from having the second best safety outcomes in 2001 and having the second worst in 2014 is probably not because of a change in types of mines.

So, it is probably due to something else[23]. Possibilities include technological change. But if anything, WA appears to be a leader in mining innovation. For example, the Minerals Research Institute of Western Australia recently stated that "WA remains at the forefront of technological innovation in mining"[24] Equally, WA is no laggard in using data analytics to improve safety. For example, DMP last year conducted an in-depth analysis of serious injuries in the mining industry[25]. This analysis showed that most injuries were caused by commonly occurring events with well-known hazards, for which significant improvements could be achieved simply by consistently applying known standards and procedures.

Relatively greater improvement in safety in the eastern States may be the most likely candidate for their relatively better safety improvements. Figure 20 shows that the reforms introduced after the 2009 Kenner report saw WA regain its position as one of the safest states – if only for a few years between 2009 and 2012. It was also during this brief period that WA had its only fatality free year (2012). But since then, the eastern states have pulled ahead again.

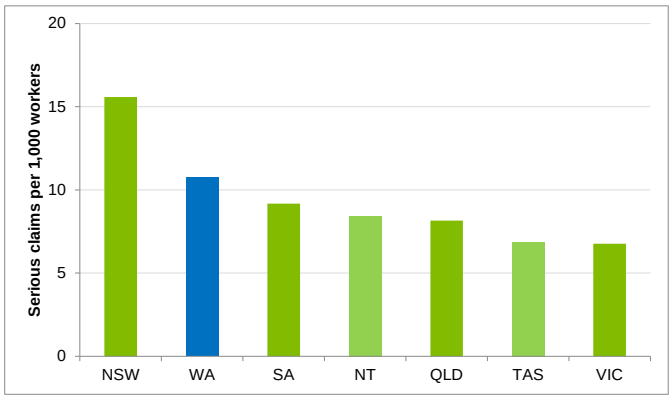
Figure 22: mining incident rates by jurisdiction, 2000-01



Source: Safe Work Australia, special data request

[22] Reserve Bank of Australia (2011) *The Mining Industry: from bust to boom.* Research Discussion Paper 2011-08.
[23] It could be argued that this result it is just an artifice of choice of start and end points, although the trend pattern in Figure 6 would indicate otherwise.
[24] http://www.mriwa.wa.gov.au/latest-news. Accessed 15/9/2016.
[25] DMP (2015) Analysis of serious injury data in the Western Australian mining industry, July-December 2013: What lessons can we learn?

Figure 23: Mining incident rates by jurisdiction, 2013-14



Source: Safe Work Australia, special data request

6.6 Comparative costs of MSB to other mining regulators in Australia

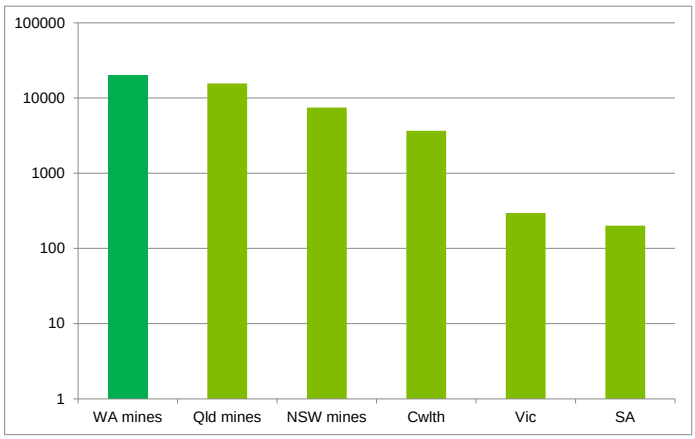
When comparing safety improvements across jurisdictions, it is also important to compare the costs incurred in achieving these outcomes. It is a commercial reality that there is a trade-off between safety and cost in society. The Council of Australian Governments (**COAG**) recommends investments in safety should cost under $182,000 per life year saved.[26]

A comparison of regulatory expenditure in WA, NSW and Queensland at the 2009 baseline (Productivity Commission, 2010) has been generated, which was intended to be compared with our multi-jurisdictional survey data[27]. Unfortunately, at the time of writing, a survey response had only been received from New Zealand.

Safety regulator costs at baseline year – 2009

Figure 24 shows MSB costs, as reported by the Productivity Commission's survey, were higher per worksite, in 2009 than in comparable mining jurisdictions (NSW and Queensland). However, to a large extent, this disparity appears to be because WA employed more experienced – and thus higher paid - inspectors than those jurisdictions. Nearly all of WA's mines inspectors had been on the job for over a decade, compared to less than half of Queensland's and not much more than a third of NSW's mines inspectors (Productivity Commission, 2010). As both the Beaconsfield and Pike River disaster inquiries found a lack of inspectorate experience was a major contributing factor (NZ Government 2012, Quinlan 2014), DMP's approach of employing highly experienced inspectors may not be unreasonable.

Figure 24: health and safety expenditure per worksite, 2009



Note: in jurisdictions without mine-specific levies, miners only face the (much lower) all-industry regulatory costs.

Source: Productivity Commission, 2010 (most up to data available)

Another reason for WA having higher expenditure per worksite may be that each inspector had fewer mines to cover than their counterparts in the other mining states. Productivity Commission (2010) figures showed that Queensland inspectors covered twice as many mine sites (22) as WA inspectors (10), while NSW inspectors covered four times as many (39).[28] However, such a comparison is, in our view, spurious as the definition of a mine is different between each state.

[26] https://www.dpmc.gov.au/sites/default/files/publications/Value_of_Statistical_Life_guidance_note.pdf
[27] New Zealand is also included in the current survey. However, it is not included in the baseline comparator as it did not have a distinct and separately funded mine safety regulator until recently.
[28] The Commission asked all regulators (including those which covered all industries) what their ratio of "worksites" to inspectors was. While Geosciences Australia data shows that WA had more major mines (140) than Queensland (85) or NSW (83) in 2009, it is possible that the higher number of worksites per inspector in the Eastern states is due to a larger number of quarries. https://web.archive.org/web/20091025025240/https://www.australianminesatlas.gov.au/)

We have attempted to use independent data from the Productivity Commission, but its age is such that it has proven to have limited utility for this report.

Current safety regulator costs

At the time of writing, multi-jurisdictional survey responses had not been received from NSW or Queensland, so publically available information was utilised, where available.

Official sources show that Queensland currently has 229 sites[29] with 39 inspectors[30], or 5.9 sites per inspector. Currently WA has 59 inspectors for 432 mine sites, or 7.3 sites per inspector, so Queensland's ratio is broadly similar, if slightly worse in terms of sites covered, than MSB's. The Queensland ratio has dropped from the 22 sites per inspector in 2009 (Productivity Commission, 2010). Similarly, official sources[31] indicate NSW has 2,772 sites with 72 inspectors, equating to 38.5 sites per inspector in NSW. The NSW definition of a mine used for this count is different to the definition used by WA and Queensland, so this ratio is treated with caution.

As New Zealand was the only jurisdiction to submit a survey response, it is only possible to fully compare WA with New Zealand on today's terms. New Zealand could not be included in the baseline comparison since it did not have a similar regulatory system in 2009. Therefore this section cannot effectively compare MSB's performance against the same set of peers in other jurisdictions over time.

6.7 Summary of '*how well does MSB operate as a regulator?*'

In summary, the key points are:

- MSB appears to understand its role and position in the 3LOD model. MSB forms part of an organisation's third line of defence and has the ability to provide feedback on and influence the first and second lines. The inspectorate does not appear to have been operating within the first and second lines of defence – however, should remain cognisant of its role and function as it becomes increasingly more risk-based with harmonisation
- Against the better practice guideline, MSB appears to be struggling to:
    - Appropriately define regulatory outcomes and priorities (ANAO issue 1). The current strategy and operational plans do not provide an appropriate basis of regulatory strategy that enables delivery of outcomes to industry. While this is not suggesting they are doing the wrong things, not having an appropriately defined strategy can have unintended consequences when dealing with industry (refer below)
    - Effectively manage or engage stakeholders (ANAO issue 3), which may be a product of the lack of transparency and accountability (ANAO issue 5) and could be argued to be a product of lack of defined regulatory strategy. While we are not suggesting DMP does not consult through various mechanisms (e.g. registered managers forum), industry submissions consistently articulate concerns in this area
    - Appropriately measure and evaluate regulatory performance (ANAO issue 7) because of insufficient defined performance measures.
- Mine safety improvements in WA over the last 15 years have been substantial and MSB can arguably take credit for a substantial proportion of this improvement.

[29] https://www.dnrm.qld.gov.au/?a=235449
[30] https://publications.qld.gov.au/dataset/commissioner-for-mine-safety-and-health-queensland-mines-inspectorate-annual-performance-report/resource/de5471a6-1fe7-4d01-bdfc-a46d428441ae
[31] http://www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0008/587366/Mine-Safety-Annual-Report-2015.pdf

7 Is the current Mine Safety Levy regime fair and equitable?

The *Mines Safety and Inspection Amendment Bill* was passed by the WA Parliament on 26 November 2009 and received Royal Assent on 3 December 2009. The passing of the bill enabled the Levy Regulations and the implementation of a levy for cost recovery of administering the MSIA. Prior to the levy, the activities of MSB were fully funded by DMP through consolidated revenue.

The Levy Regulations came into effect on 24 April 2010. The objective was to generate an amount of revenue that matches the forecasted yearly expenditure for administering safety and health within the WA mining industry.

7.1 Scope of the Mines Safety and Inspection Levy

The activities covered by the levy are described in the MSIA. The key principles in the MSIA, described as “Objects”. The five “Objects” listed are detailed at section 2.1 of this report. Section 105A of the MSIA states that regulations may be made to “provide for a levy, which may be of the nature of a tax, to be payable to the State for the costs of administering this Act.”

To ensure that levy funds are used only for Mines Safety, DMP has established a Special Purpose Account (SPA) to administer the levy monies (i.e. Fund 31) recovered from industry, in accordance with s.105AB of the MSIA.

7.2 Calculating the Mines Safety and Inspection Levy

The MSL was gazetted on 23 April 2010 with the introduction of the Levy Regulations. Part 2, Division 1 of the Levy Regulations outlined the detail of the ‘initial levy imposed’. The levy was payable by a principal employer of a mine’s workforce whereby the total number of assessed hours exceeded 1,666.70.

The initial levy imposed was calculated using the following formula (s.5 Levy Regulations):

Levy = R x H

Where:

R is the levy rate of $0.75

H is the number of assessed hours for the initial levy period.

The initial levy raised $9,156,000 to 30 June 2010 and $20,304,000 to 30 June 2011.

From July 2010 onwards, the levy was imposed in respect of a mine for each quarter in which the number of assessed hours exceeded 5,000. The levy calculation remained consistent with the above methodology; however the rate (R) changed per the table below:

Table 18: levy rate (R) since 30 June 2011

Period	Rate (R)
For a quarter that ends on or before 30 June 2011	$0.125
For a quarter that begins on or after 1 July 2011 and ends on or before 30 June 2012	$0.180
For a quarter that begins on or after 1 July 2012 and ends on or before 30 June 2013	$0.120
For a quarter that begins on or after 1 July 2013 and ends on or before 30 June 2015	$0.125
For a quarter that begins on or after 1 July 2015	$0.140

The levy rate (R) is re-assessed annually as part of Departmental annual review of tariffs, fees and charges that each WA agency is required to undertake. With Director General and Ministerial approval, the proposed levy is submitted to the Department of Treasury in December each year. The Economic

and Expenditure Reform Committee (**EERC**) reviews and endorses the levy, which is then gazetted for the new financial year, effective 1 July.

Under this cost recovery model, the levy rate is set approximately eight months before the first period in which it will be applied and relies on estimating activity (reported hours) of mining operations. Any estimates in the forecasts which later turn out to be incorrect will require an extended period of time to resolve through setting of subsequent levy rates.

Recommendation 12
DMP should investigate options to commence budgeting processes for the levy rate closer to the actual period in which it will become relevant to ensure a greater capture period of actual results.

DMP is required, each year, to calculate the levy revenue required from industry to fund the forecast cost of regulation of mines safety. DMP has a number of operational procedures and guidelines, which articulate the cost recovery model and the method for determining the allocation of indirect costs. The Guidelines for Calculating the Mines Safety and Inspection Levy (Levy Guideline) is the primary document used by the Financial Planning team.

The Levy Guideline (dated February 2016) details the methodology for calculating the levy as:

$$\text{Levy rate per mining hour worked} = \frac{\text{Total Cost of Service} \pm \text{Surplus or deficit funds from previous year}}{\text{Projected number of mining industry billable hours}}$$

Calculating the total cost of service

The total cost of service is calculated as:

Total cost of service = Direct Costs + Resources Safety Support Costs + Corporate Overheads

Where:

Direct cost

Section 1.1 of the Levy Guideline describes direct costs as being inspectorate and operational functions, including projected salaries and operational expenses, directly traceable to mining safety regulatory services. Furthermore, direct costs include non-cash items comprising superannuation, depreciation and resources received free of charge (RRFC), such as Department of Finance procurement services and State Solicitor's Office legal services. While they do not involve a payment of funds, these RRFC are included in the calculation of direct costs as they represent a genuine cost to government.

Resources safety support costs

Section 1.2 of the Levy Guideline describes resources safety support costs to include support provided by the Executive, Business Development (legal and policy, communications, training and education, FOI) and Support Services (licensing, certification, and business systems) branches.

As resources safety support costs are not directly traceable to mines safety regulatory services, support staff undertake time recording twice each year to determine the percentage allocation driver of support costs against Mines Safety, Petroleum Safety, Dangerous Goods Safety, Major Hazard Facilities and Explosive Reserves.

The Levy Guideline includes the results of the timesheet surveys for each calendar year from 2010 to 2015.

DMP Internal Audit found the timesheet exercise undertaken to determine business support costs attributable to Mines Safety was thorough and robust, designed so the least number of staff were on leave and hours collected were most relevant during the periods chosen (DMP 2011, pp. 3 and 11).

Corporate overheads

Section 1.3 of the Levy Guideline describes Corporate Overheads to include Finance, Communications & Marketing, Information Services, Records, Internal Audit, Facilities Services, Human Resources, Strategic Planning and Strategic Policy. Corporate Overheads are allocated to RSD based on the Department's uniform indirect cost driver model.

7.3 Fairness and equity of the current levy model

The levy is applicable to all WA exploration and mining operations that are regulated by the MSIA and report equal to or more than 5,000 assessed hours per quarter. The Levy Guideline describes the international industry standard of 1 FTE being equal to 500 hours per quarter. The threshold for payment of the levy is therefore 10 FTE per quarter. The Levy Regulations state the person liable to pay the levy in respect of a mine for a quarter is either the principal employer at the mine at the end of the quarter or the last principal employer in that quarter.

Prospectors, small-cap exploration and many mid-cap exploration and mining companies are not required to pay the levy as they do not reach the minimum number of hours worked cut-off.

Based on our analysis of levy payments made during the FY15 period, the main levy payers are iron ore surface miners, accounting for about half of the levy funds received in the sampled period. Table 19 below provides a summary breakdown of the levy funds received in one quarter during FY15 Q4. We have also geospatially mapped the levy payments and graphically represented the volume of payment at Figure 25.

Table 19: levy payers by mining type for one quarter (Q4, 2015)

Commodity	Open Cut	Underground	OC & UG	Total	Primary levy payers
Iron Ore	$3,253,095	Nil	Nil	**$3,253,095**	BHPB Iron Ore, Rio Tinto Iron Ore, Fortescue, CITIC, Roy Hill, Robe River
Gold	$413,788	$6,617	$889,930	**$1,310,334**	Newmont Boddington, AngloGold Ashanti, Northern Star Resources, Newcrest, Evolution Mining, Doray Minerals
Nickel	$285,899	Nil	$129,733	**$415,632**	BHPB – Nickel West, Independence Group, Panoramic Resources
Other	$831,974	$61,809	$137,640	**$1,031,422**	Alcoa, South32, Worsley Alumina
Total	**$4,784,756**	**$68,426**	**$1,157,303**	**$6,010,483**	

Source: DMP SRS extract, 2016

While it appears logical for the iron ore mines to pay the substantial portion of the levy given the super cycle boom, there are only 57 active iron ore mines in WA. The 57 iron ore mines represent 13% of the number of mines in WA, but they do represent 53% of the mining workforce (refer to Table 43) and approximately 60% of the production tonnes of the WA mining industry[32]. The levy paid by iron ore miners could appear inequitable given MSB's activity is proactively driven by site visits to undertake inspections, not the number of hours. Therefore, there may be questions of DMP to demonstrate value to the iron ore sector as it could be argued it is largely funding MSB to regulate the mining sector as a whole.

Discussions with MSB leadership highlighted that they believe the regulator resourcing levels are not directly impacted by incremental changes in industry resourcing levels and performance. MSB workload probably best correlates with the number of mines in operation, rather than number of workers or aggregate hours worked. Therefore, it would stand to reason that the levy as currently designed is not equitable, as the primary driver for MSB to deploy its resources is the number of mines, the level of activity and operational complexity, not the number of hours industry spends on site.

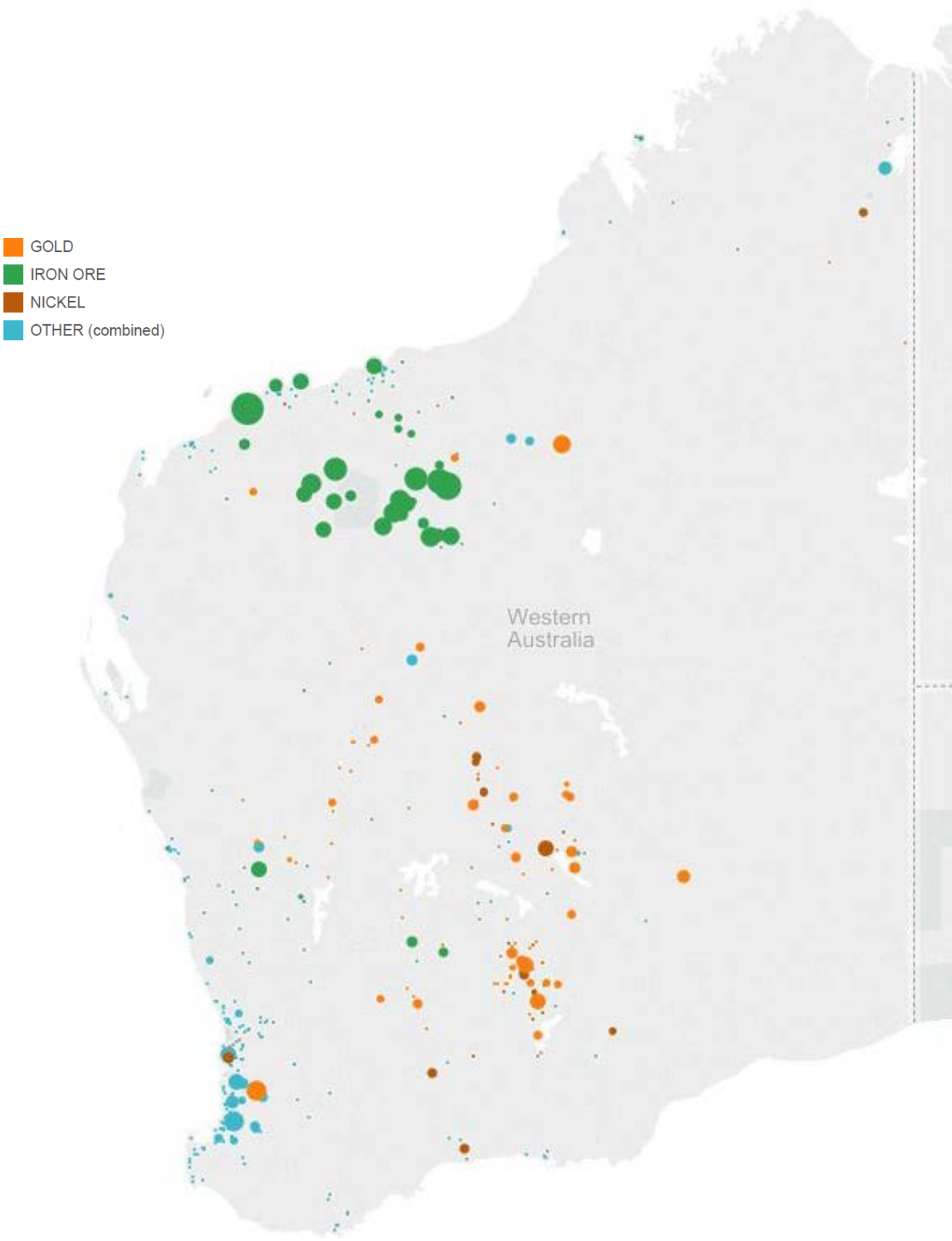
Recommendation 13

DMP should consult with its Minister regarding the current levy regime to commission a study and economic analysis that looks into the feasibility of different levy models, if further analysis is believed required beyond this paper.

[32] http://www.dmp.wa.gov.au/documents/Stats_Digest_2014-15.pdf

Figure 25: geospatially mapped levy payment activity by location (Q4 2015)

Levy payments by commodity and location. The size of the bubble denotes the volume of levy paid.



7.4 Mines Safety Levy – analysis of forecast vs. actual

The levy rate is calculated based on cost and reported hour forecasts eight months prior to the start of the financial year in which it will come into effect. These two key drivers determine whether a forecast surplus or deficit is realised. The first levy rate of $0.75 was not set based on this detailed forecast process. We examined the variances between the forecast and actual surplus/deficit for FY12 to FY15 and present these observations in the following figures.

The figures should be read from left (Forecast) to right (Actual). Each section of the "waterfall" demonstrates the strength of the forecast, in order to arrive at the actual outcome. For example, where the forecast reportable hours were less than the actual reportable hours, a favourable variance is produced. Similarly, where forecast cost was less than actual cost an unfavourable variance is produced.

Figure 26: FY12 Forecast v Actual Surplus

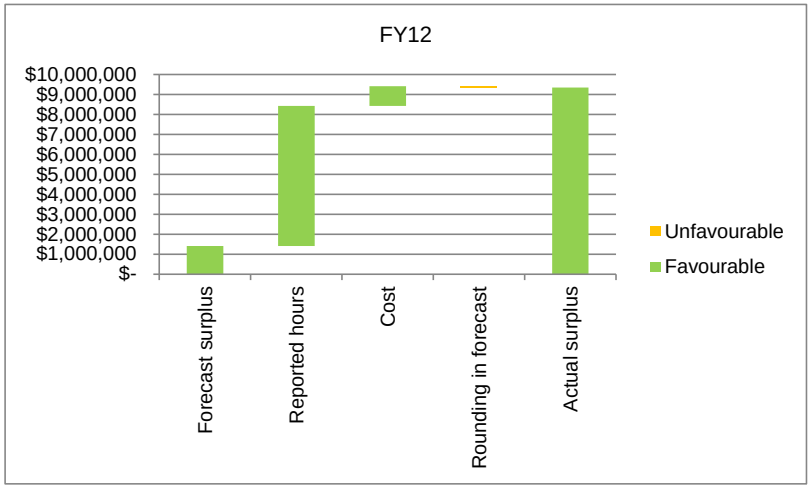


Figure 27: FY13 Forecast v Actual Deficit

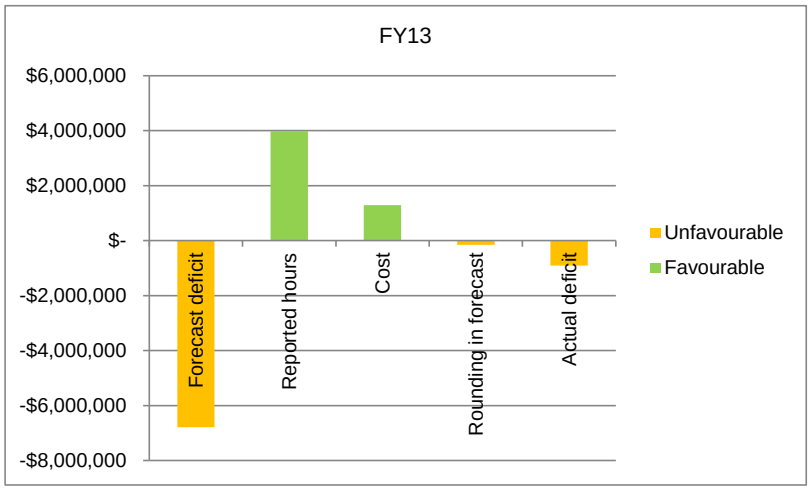


Figure 28: FY14 Forecast v Actual Deficit

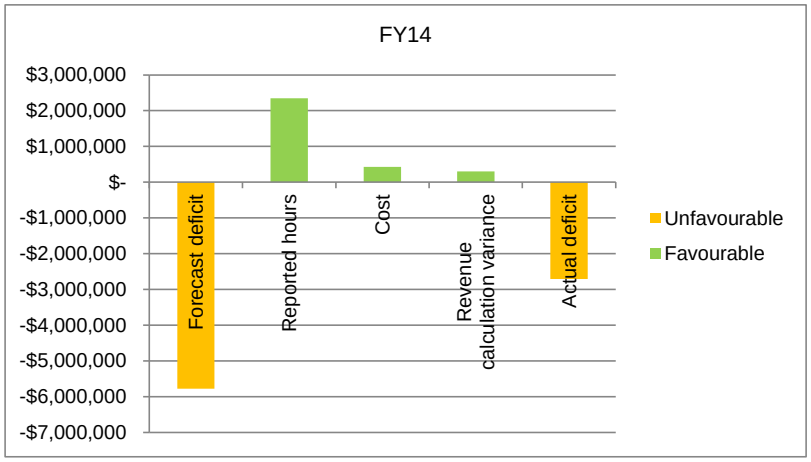
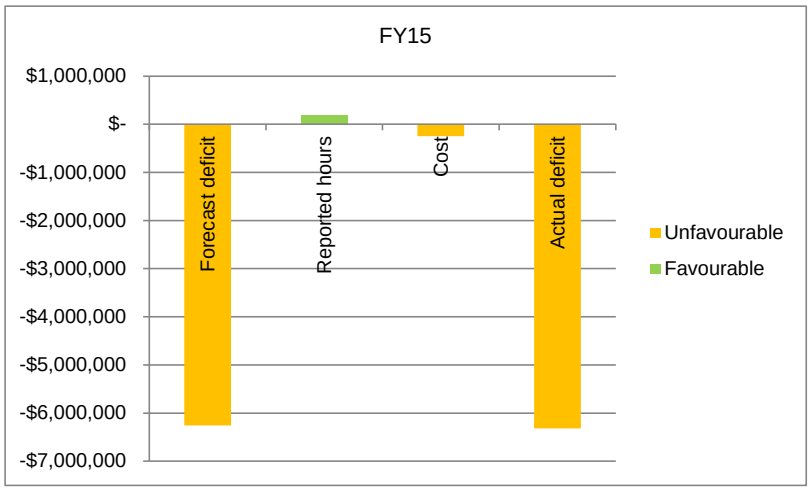


Figure 29: FY15 Forecast v Actual Deficit



The series of above figures demonstrate that between FY12 and FY14 total forecast surplus/(deficit) levy has been favourably impacted by significantly greater than estimated assessed hours and modest favourable cost outcomes. Despite favourable impacts on the actual outcomes, a deficit has been forecast and realised since FY13. FY15 was the first year in which the forecast and actual deficit were materially equal.

It appears that an error in the November 2010 estimate to include a brought forward deficit, instead of surplus from FY10, resulted in an artificially high levy rate applied in FY12. This rate, combined with a greater than anticipated number of reported hours, resulted in a significant surplus of $9.3M.

For each subsequent year, DMP has incorporated the total running balance of surplus funds in its levy rate calculations, rather than only the immediately preceding year, resulting in artificially low levy rates until the surplus was extinguished in FY16.

This methodology has also masked the increase in costs, which have continued to climb from approximately $25M in FY12 and FY13 to approximately $30M in FY15 and FY16.

We also found that the workbooks used to calculate the levy figures are not appropriately secured, locked down or formatted in such a way that prevents errors. We expected to see that the working books were secured and required the user to enter key data points, which produced the proposed levy ranges.

Recommendation 14

DMP should:

(a) Lockdown the levy work books so that only key data entry points are editable

(b) Secure the work books so that the underlying levy formulas cannot be erroneously altered

(c) Provided more detailed working instructions to the user. At present, the calculation of the levy relies on a small number of personnel

(d) Include an analysis tool that enables key DMP personnel to scrutinise the changes in the levy (e.g. if costs were to increase, what's the impact?).

7.5 Cost recovery overview

Figure 30 reveals the impact of declining revenue from the levy since 2012, while costs steadily increased at an average rate of approximately 5.5% per annum.

Figure 30: cost recovery overview FY10 to FY15

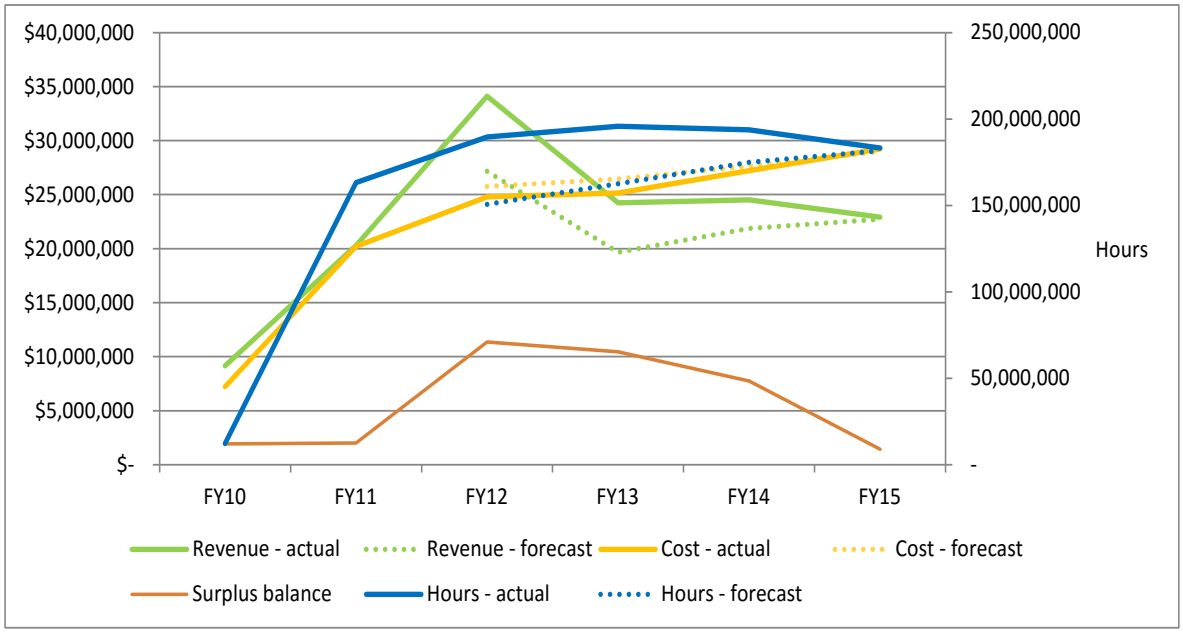


Figure 30 demonstrates the sharp decline in revenue between FY12 and FY13, at the same time as actual hours increased by approximately 6 million. The reduction in revenue of almost $10M was the result of the levy rate being reduced from $0.18 in FY12 to $0.12 in FY13. The high levy rate in FY12 was, in part, the result of DMP using a previous year deficit estimate of $1.4M when it prepared the estimate in November 2010. At this time, DMP should have been aware that a surplus of $1.9M had been achieved in FY10. In the subsequent forecast in November 2011 (for the purpose of calculating the FY13 levy), DMP factored into its calculations the total running balance of actual surpluses for FY10 and FY11. As a result the levy rate reduced by approximately one third.

The levy rate increased to $0.125 in FY14 and FY15. However, as Figure 30 demonstrates, during these periods actual reported hours have declined to approximately 180 million in FY15, which is the level of activity DMP estimates to be the future long term average[33].

Based on DMP's forecast for levy setting purposes (Nov 14) and the subsequent revised estimate (Nov 15), the deficit in FY16 is estimated to be between $3.8M and $5.5M, which will eliminate the surplus balance for the first time since the levy's inception. Considering the parameters presented, DMP has two options under the current model; increase the levy rate, or reduce costs.

In the FY17 Recommendation presented to the DG and Minister, DMP states that:

- "It recognises the current economic pressures will result in an unavoidable accumulated deficit in FY17. To avoid harsh fluctuations in the rate DMP recommends charging $0.16 per hour in FY17, which is slightly less than the forecast medium term average"
- "A phased approach to increase the levy rate to recover the accumulated deficit is the preferred option as it avoids the risk of erratic fluctuations in the rate".

While the comparison of forecast to actual (hours, revenue and cost) in the figure above demonstrate more accurate forecasting over time, the FY17 recommendation does not address whether DMP has considered the other lever of seeking cost efficiencies, except to say that "despite the decline in activity within the mines sector, mines safety inspectors are obliged to service the same amount of mine operations." Based on information provided by DMP, an additional six mines began operations between FY15 and FY16 so in fact the workload is slightly increasing.

The following figures represent the breakdown of total cost of service into direct costs, resource safety support costs and corporate overheads.

[33] Mines Safety Levy Brief and Recommendation for FY17 (the **FY17 Recommendation**)

Figure 31: breakdown in value of total cost of service

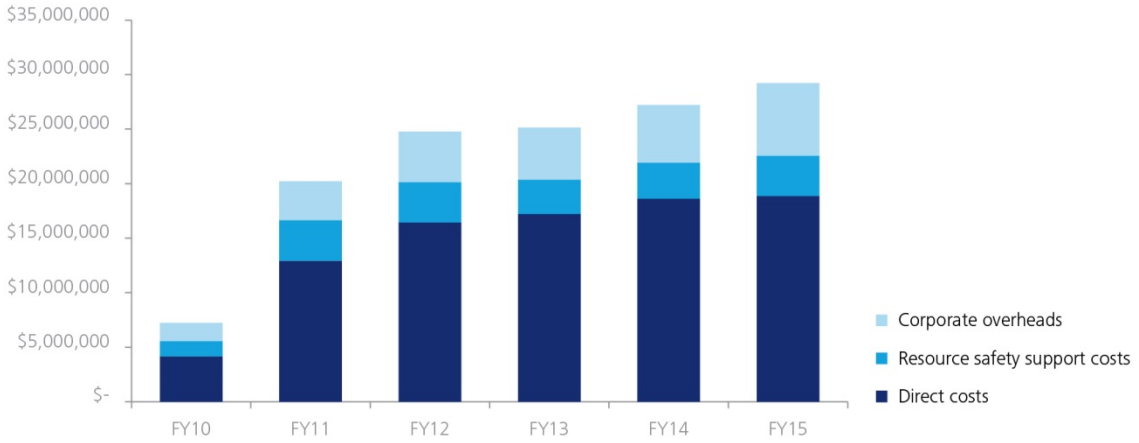
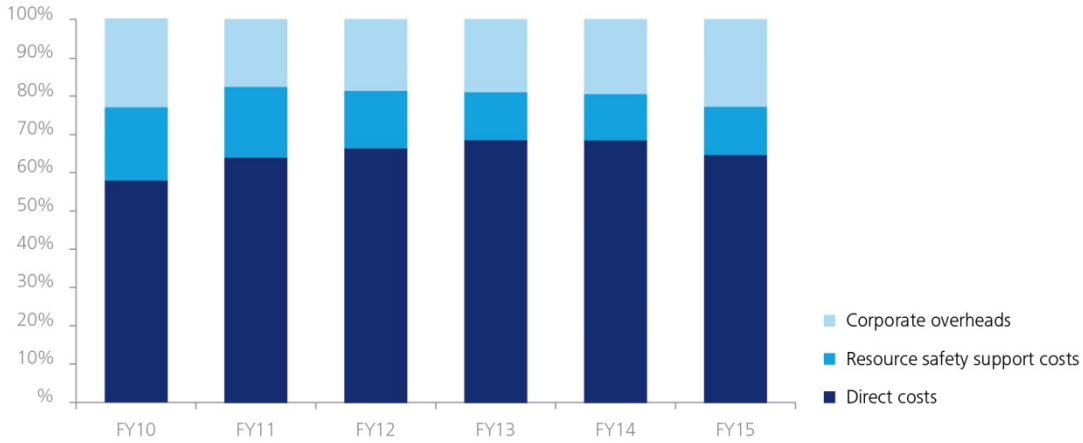


Figure 32: breakdown in percentage of total cost of service



If we assume FY12 to be the first year where all business-as-usual costs have bedded down and year on year comparison is meaningful, the total cost of service has increased by approximately $4.4M from FY12 to FY15, which is attributable to:

- Direct costs ($2.4M) – The key drivers of increases to direct costs are wages, salaries, allowances and related personnel costs
- Resource safety support costs (reduced by $671K)
- Corporate overheads ($2.7M) – Key drivers of this increase are:
    - Executive corporate services ($228K)
    - Finance and Administration Services ($560K)
    - Legal Services ($826K)
    - Investigation Safety Section ($1.2M).

As noted in its FY17 Recommendation, DMP anticipates mining activity to stabilise at an average level of approximately 180M reportable hours per year. With this in mind, and the current economic pressures, DMP plans to increase the levy rate gradually to between $0.16 and $0.18 to achieve full recovery of costs. We note however, that this rate would continually need to increase at the same rate of annual cost increases (average 5.5%), unless DMP considers approaches to identify efficiencies in its current cost base.

Recommendation 15

If the current levy regime is to remain sustainable and palatable to industry, MSB must drive cost efficiencies in its operations to avoid long term recurrent deficits.

7.6 Expenditure attributed to the Mines Safety Levy requiring examination

During our examination of cost ledgers we observed two cost codes on which we performed further detailed analysis. These costs demonstrated large annual increases and/or represent a material proportion of annual spend.

Accommodation lease costs

The following table summarises the accommodation lease costs between FY12 and FY16[34]. These values only include direct lease costs and not the total "Office accommodation" expenses reported in DMP's Resources Safety Achievements and Performance reports (e.g. indirect accommodation costs[35], building maintenance).

Table 20: lease costs FY12 to FY16

	FY12	FY13	FY14	FY15	FY16
Lease-Accommodation	$357,755	$425,732	$547,540	$1,047,718	$1,086,660
% increase	20%	19%	29%	91%	4%
% of cost base	1.4%	1.7%	2.0%	3.6%	3.6%

The percentage increases between FY12 and FY14 are significant in themselves, but these are dwarfed by the almost doubling of accommodation lease costs between FY14 and FY15. Based on the individual transaction level reports for FY15 and FY16, approximately 95% of these costs have been charged to direct cost centres. Therefore, the increase is not attributable to a change in corporate overheads or the allocation methodology, but relates solely to Mines Safety accommodation.

The narration of transactions in FY15 suggest Mines Safety occupied two premises at the end of FY14 and start of FY15, which may account for some of the significant increase between those years. We understand these two premises relate to the relocation of MSB from Mason Bird Building in Cannington to 1 Adelaide Terrace, East Perth. However, the FY16 costs suggest that this level of accommodation expense is the new norm.

This move by MSB occurred at a time when the WA government moved many departments into the city centre (e.g. 140 William Street). Submissions from WA CME and AMEC stated their concerns about DMP charging industry for MSB's new offices in Adelaide Terrace.

Recommendation 16

DMP should investigate the accommodation lease costs to ensure that no costs have been attributed to the cost base of the levy, which should have been charged directly or by allocation to other operational service areas.

SRS costs

The following table summarises the system development costs between FY12 and FY16.

Table 21: SRS development costs FY12 to FY16

	FY12	FY13	FY14	FY15	FY16
System development[36]	$1,766,778	$1,531,658	$2,246,502	$1,842,870	$2,508,107
% increase	16.7%	-13.3%	46.7%	-18.0%	2.1%
% of cost base	7.1%	6.1%	8.3%	6.3%	8.4%

We understand that DMP has developed SRS to allow for the electronic lodgement of documents and data by its clients. We also understand that SRS is not limited to mining clients, but also includes petroleum and dangerous goods.

It is not possible to confirm from the narration of transactions in FY15 and FY16 whether only those elements of SRS system development that relate to Mines Safety have been captured in the cost base of the levy each year. Furthermore, based on the significance of these internal software development costs, DMP may have considered capitalising and amortising them over the periods that are expected to derive benefit from them pursuant to AASB 138 - *Intangible Assets* and *Accounting Policy Guideline (APG2)* issued by the WA Department of Treasury.

[34] FY16 value has been annualised, based on nine months' costs to March 2016
[35] Indirect accommodation costs include costs for workers whose expense is charged to the levy based on timesheet allocation
[36] Note that these amounts per annum are different to those provided by the SRS team, who provided costs from FY10 to FY16, totalling $12.11M reflecting costs for the development of the whole system (including MSB, dangerous goods and petroleum safety) (see appendix H)

Recommendation 17

DMP should investigate the system development costs to ensure that no costs have been attributed to the cost base of the levy, which should have been charged directly or by allocation to other operational service areas.

DMP should also consider whether it should have capitalised the development costs pursuant to AASB 138 and amortised them over the periods that will derive benefit from them.

7.7 Comparison of levy imposts across jurisdictions

Comparing levy quanta across jurisdictions is difficult as they utilise different recovery mechanisms. For the purpose of this exercise, levy size is measured in dollars per (FTE) miner per year. As we are comparing levies both across Australian jurisdictions and across nations, the *US Government's Centre for Disease Control* figure of 2,000 mining hours per year for a full time employee is used[37]. By this benchmark, at 16 cents per hour, the cost of the levy in WA is $320 per miner per year.

In ***New South Wales***, the Mine Safety Fund is collected as a percentage of workers' compensation premiums, as a percentage of wages – which is to an extent a function of hours worked. So the collection mechanism is not dissimilar to WA. The average workers' compensation premium in NSW in 2015-16 is 1.53%[38]. The Mine Safety Fund is an additional 17.7% of compensation premiums[39]. Thus, for an average miner on a salary of $138,000 per year, the NSW Mine Safety Fund is $374 per year[40], which is comparable with the WA levy.

The situation is quite different in ***Queensland*** where the Mining Levy is effectively a 'head tax'. It is also much higher than in WA or NSW, at $822 per miner per year[41].

We found it difficult to gather sufficient, timely information from other jurisdictions to make a fair comparison of DMP's relative performance. For different reasons, comparisons to New Zealand and Canada were also infeasible. However, from the information available from comparable jurisdictions, notwithstanding the caveats and limitations of the analysis, in summary WA appears to be better (refer to **Table 1**, but also replicated below):

Jurisdiction	Method	Detail
WA	Hours based levy	• Below 5,000 hours per quarter – levy exempt • Above 5,000 hours per quarter - $320 per mine worker, per annum
Queensland	Head tax	• 5 or less workers – exempt • 6 to 10 workers - $103.50 per work, per annum • 11 of more workers - $822 per mine worker, per annum
New South Wales	Workers Compensation levy	• No levy exemption based on size • 17.7% on workers compensation premiums • $374 per mine worker, per annum

Another factor to consider is industry compliance costs, not just monetary levy costs. The CME Submission to the Review of Mines Safety Branch Resourcing and Funding noted (p.17) "the administrative costs of complying with the levy regulations… in some cases exceed the cost of the levy itself". DMP audits found that only 7% of operators had correctly recorded their hours. CME considers that "the root cause of this non-compliance is the innate complexity of the scheme and the level of prescription within the Levy regulations, particularly around the reporting of FTE hours and the level of precision required in accounting for these". There could be some potential for improvement in a revenue-raising scheme if, in spite of sometimes costing more to administer than it raises, it still manages to raise the incorrect amount of revenue 93% of the time. Possibly, as recognition of this complexity, DMP introduced an instrument in 2016 that allows for a 2% error margin (although DMP may still choose to prosecute within these margins).[42]

In addition to these direct compliance costs, there are further costs associated with such audits of compliance. The CME noted "the resources required for the Levy audit process are also significant" (ibid). For example, in 2011/12 DMP conducted 57 audits that accounted for over 250,000 hours of levy hours worked by industry. This effort is perceived to represent a substantial administrative burden for DMP – for example, travelling to sites to audit individual monthly payroll spreadsheets, records of names, dates and times on sites, unreported visitors, travel times for fly-in fly-out workers and gaps in

[37] http://www.cdc.gov/niosh/mining/statistics/allmining.html
[38] http://www.Safe Workaustralia.gov.au/sites/swa/about/publications/pages/cpm-17
[39] https://www.workcover.nsw.gov.au/__data/assets/pdf_file/0018/27405/2015-Insurance-Premium-Order-full-version-1775.pdf
[40] http://www.theaustralian.com.au/business/mining-energy/miners-still-dig-up-the-biggest-salaries/story-e6frg9df-1226817045864
[41] https://www.business.qld.gov.au/industry/mining/safety-health/mining-safety-health/safety-health-levy-census
[42] http://www.dmp.wa.gov.au/Documents/Safety/RS_RSM_Mag_Feb16.pdf

reporting processes. As safety levy auditors carry the rank of inspectors under the MSIA, the cost of their time is not insubstantial.

There are simpler cost recovery models that could be applied, which would still raise the necessary funds, but with significantly reduced administration costs for both Government and industry. For example, the cost recovery mechanism used by the National Offshore Petroleum Safety and Environment Management Authority (NOPSEMA) has a number of levy types that each has a discrete value depending on size and type of the operation (Table 22, note at the time of the assessment, each unit cost is $35,000). This 'lump sum' approach means NOPSEMA does not have additional auditing requirements, as compared with the Levy regulations.

NOPSEMA also conducts regular reviews of its cost recovery impacts and every year publishes a report that assesses the cost effectiveness of its overall operations providing greater levels of transparency to those from whom costs are being recovered.

Table 22: NOPSEMA Safety Case Levy fees

Item	Facility	Cost units
1	Floating liquefied natural gas facility	25
2	Large platform with drilling/workover capability	12
3	Platform with accommodation facilities, when drilling or workover facilities are in commission	8
4	Platform, with accommodation facilities, when drilling or workover facilities are not in commission	5
5	Floating production storage and offloading facility	6
6	Mobile offshore drilling unit or drill-ship	6
7	Vessel for laying pipes for a petroleum or a greenhouse gas substance	5
8	Vessel or structure used for doing work on an existing pipe; or erection, dismantling or decommissioning of a facility; or the provision of accommodation for persons working on another facility	3
9	Floating storage unit linked to a production platform	3
10	Monopod, well head platform or other small production or injection facility with no accommodation	1
11	Vessel or structure not otherwise listed above	3

Source: NOPSEMA https://www.nopsema.gov.au/assets/Guidelines/A15538-Safety-Case-Levies.pdf

7.8 Industry perceptions of levy fairness and equity

While the cost recovery methodology has been set by the Levy Regulations, based on consultation with industry, interviews with DMP personnel and examination of the associated DMP processes, we believe that the ability to build into the calculation a 'true-up' of previous year's deficit into a current calculation could be viewed as an 'open cheque book'.

Questions around the ability to recoup previous year deficits have been echoed by the CME, which cites issues with transparency around levy revenue and expenditure. Further, AMEC notes in its submission that "there do not appear to be rules surrounding the use of funds raised through the Mines Safety Levy". DMP is bound through the MSIA and the Levy Regulations (amongst other legislative and process requirements) that cost recovered funds can only be used for defined purposes. So it appears there may be stakeholder management issues as previously identified.

In the context of the above industry concerns, we believe that there are insufficient accountability measures in place to provide comfort to industry regarding the use of funds and protect DMP from potential reputational damage regarding use of monies.

Recommendation 18

DMP should:

(a) Design a range of accountability measures that enforce efficiency into its operations or are able to demonstrate efficiency gains have been sought

(b) Consider what mechanisms can be used to increase transparency regarding the use of levy funds to industry.

While we are suggesting that there should be greater levels of transparency relating to the calculation and collection of levy funds, we are not suggesting that DMP's budgets and processes should be subject to industry scrutiny. DMP needs to remain an independent regulator that delivers for the community and is accountable to the Minister, the Government and Parliament. There is a perception

amongst industry that there is little to no cost containment and given current operating hardships in the industry, there should be measures to enable efficiencies and transparently report on financial performance.

7.9 Impact of the levy on industry

Industry is required to pay a large number of fees and charges as part of the licence to operate in the WA mining industry. Example fees and charges include royalty payments, mining lease fees, exploration fees, the rehabilitation fund levy, mines safety levy and environmental permit fees, not to mention any other local and federal government fees.

Based on our analysis, we have been unable to locate a centralised repository of all the applicable fees and charges mining bodies are required to pay to government. We have also been unable to determine whether a broader study, focused on understanding all of the charges the industry is required to pay, exists.

Recommendation 19

DMP should, through its Minister and in consultation with other government departments, request a study that investigates the volume of fees and charges the industry is required to pay. The focus of the study should be to determine whether the volume of fees and charges are fair and equitable.

Also, the study could consider the potential for a one payment, single licence to operate approach, through which one agency may collect funds and allocate to other Departments.

7.10 Summary of '*is the current Mine Safety Levy regime fair and equitable'?'*

In summary, the key points are:

- The levy model is heavily reliant on accurate forecasting and budgeting processes. As the current levy process is set some eight months in advance of being introduced because of broader Government mechanisms (e.g. Treasury and EERC), it is at risk of not accurately reflecting industry and inspectorate requirements
- We also found that because the current levy model is calculated using forecast costs, through which any calculation errors result in additional costs or benefits accruing to the payers in future periods. We found such an error that has resulted in future periods benefiting from an over claim in a previous year – which may not be fair and equitable to industry participants and is dependent on the stability of the industry
- There are perceptions that the current levy calculation could be perceived as an 'open cheque book' given the ability to 'true-up' previous deficits
- There is no incentive for DMP to contain costs
- We believe that there are insufficient transparency and accountability measures to provide comfort to industry regarding the use of funds and protect DMP from potential reputational damage regarding use of monies
- Notwithstanding the limitations of the current levy regime, WA appears to be operating its inspectorate more cost-effectively than the comparator regimes of NSW and Queensland.

8 MSB risks and funding options for the future

It has been asserted that society as a whole is better off with externally policed safety regulations than with allowing mining companies to institute safety as they see fit. However, these regulators have to be paid for by someone. The method of payment is one that is up for debate in this section of the report. But we first explore a number of prevailing risk factors that we believe means that the government should change its thinking relating to funding.

8.1 Risk factors that may impact the way in which DMP regulates and is therefore funded

In this section, we outline some examples of risk factors that will impact the way in which MSB regulates. We are not suggesting MSB is not proactively thinking about these risk factors, rather that they are factors that will change the current regulatory landscape. As the way in which MSB has to regulate changes, we argue that the way in which it is funded should too.

National harmonisation of health and safety legislation

The COAG-endorsed NMSF was created to facilitate a nationally consistent, risk-based regulatory framework for mines safety in Australia. All states, except WA and Victoria, have signed up for the Model Work Health and Safety (**WHS**) Act, which is for general workplace safety. The Chief Inspectors of the mining states of WA, Queensland and New South Wales have been working on creating nationally consistent (but not necessarily harmonised) mining-specific, risk-based safety legislation. The mining states have agreed to differ on the details of the legislation, and are currently drafting their own sets of “modernised” legislation. WA’s new mines safety legislation, called the WHS (Resources) Bill, is expected to be enacted in 2017.

By its very nature, the harmonised, risk-based approach will become harder to regulate, insofar as the regulator cannot tick off a list of compliance obligations as a test of performance. As such, the regulator and its inspectors are going to have to be appropriately skilled to understand the diverse range of risk approaches and operations and be practical in approach. “New Occupational Safety and Health legislation is expected to make the regulatory role more complex” (Price 2015, p4).

Innovation and new technology

According to Moore’s Law, the power of technology doubles every 18 months. New materials and technologies (e.g. 3D printing, robotics, artificial intelligence, deep sea mining, and space exploration/mining) will bring about considerable change to the way mining operates in future.

The importance of associations with research groups is highlighted by these emerging issues to prevent an equivalent to the Queensland inspectorate’s “Black Lung” issues.

Autonomous Mines in the Pilbara (Mine of the Future)

Regulation of autonomous equipment requires mines inspectors competent in mechatronics, technology, big data, telemetry, electrical engineering and ICT. Currently, autonomous operations are concentrated in the Pilbara iron ore industry, using autonomous trucks, production drill rigs, dozers, graders, trains, and other ancillary equipment, which are monitored from remote operating centres in the Pilbara and Perth. In future, autonomous mining, transport and exploration activities will become more prevalent as they become feasible in different settings not currently economically feasible to retrofit (e.g. underground mines to fully autonomous operations and emergent new technologies in the field of autonomous deep-sea mining).

Technological advancement in real-time sensing of conditions is anticipated to improve mine safety and efficiency. Real-time analysis of oil chemistry is one example of predicting when an engine is due for an overhaul. Another example is the increased use of drones both in open cut and underground mines to acquire views of the mine or investigate parts of the mine previously inaccessible (e.g. looking around inside open stopes to understand ground failure mechanisms or to remediate frozen blasts). The increased take-up of data collection tools such as XRF guns (i.e. instant ore grades); AdamTech and CSIROvision (i.e. mapping and structural analysis) are anticipated to replace geologists in the field.

The changing nature of work may mean employer-employee relationships could change to a casual, agile and adhocratic approach with global competitive forces shifting work onto the internet (i.e. crowd sourcing or the “gig economy”).

Another factor that may need to be considered is how the current levy model factors in worker hours that are not on site. If the current levy regime is maintained, DMP will need to ensure that all hours relating to mine site operations are being captured and reported to ensure that reported hours are not skewed by the use of such independently operated machinery.

DMP published in 2015, in consultation with MIAC, an Autonomous Mining Code of Practice, which represents a great first step in managing the changing work environment. As autonomous mining continues to develop, DMP will need to continue developing its approach and response to changing work.

Adhocracy, agility, flexible work, digital transformation, innovation, diversity

MSB may need to move towards a more agile workforce approach (to flex with the demands of industry) and promote greater information sharing and collaboration with external parties, including other agencies to ensure diversity of thought. The Federal Government’s Science and Innovation Agenda highlight the need for the digital transformation of government. SRS is a step in the right direction and momentum on this project should be maintained. SRS could facilitate virtual e-teams, collaboration, data analytics and joined-up-government. But be aware that with digital transformation (and autonomous mining) comes greater risk of cyber-risk, which will need to be managed.

More challenging mining in future

Deep Underground Mines

Underground mining is inherently more risky and technically challenging than surface mining, particularly for ventilation, geotechnical, extraction sequencing constraints, haulage and access reasons. Retaining MSB capability for managing the risks of deep underground mines will be important in the future, including managing the risks of mining-induced seismicity.

Uranium Mines

It seems likely that uranium mining will begin as soon as it is economically feasible to do so. Toro Energy’s Wiluna operation is poised to go into operations as soon as the cycle turns. MSB must be on the front foot to ensure there are no potentially long term implications of poor management of the issues surrounding uranium mining (and for that matter mineral sands and rare earth element mining). A high level of public scrutiny over these affairs will need to be managed through absolute transparency and accountability. Having the Radiation Management Plan approvals system and radiation inspectors in place will be a good start.

8.2 Funding options for the future

We argue that the funding arrangements of today are not the funding arrangements of the future. As times change and the industry faces different risks, the model in which the safety regulator regulates, and is therefore funded needs to be reconsidered. We believe that the time to reconsider the levy funding approach is now.

The pros and cons of various funding mechanisms are discussed below.

Single licence to operate

Our conceptual preference and recommendation would be a single licence to operate, which consolidates all fees and charges imposed by WA government on the mining industry into one annual payment. Such a model would reduce red tape imposed on industry as the number of hurdles and payments are significant.

Such a model would be a brave step forward demonstrating ‘joined-up government’. We found that no study had been undertaken examining the number of and quantum of charges imposed on industry by government. It would be significant exercise to transform licencing so radically.

Per site charge

A per site charge is the model adopted by NOPSEMA. Compliance costs are low: your facility fits into one of 11 pre-defined categories (Table 22). Each category has a single, fixed and known in advance charge. As charges are linked to size and complexity of facilities inspected, those regulated have some proximate idea of the relative costs involved, which should serve regulator cost efficacy. No audits of levy compliance are required.

Similarly, as larger and more complex sites may cause more accidents, allocative efficiency is also served by charging these facilities more, which could be further enhanced if, for example, the levy was higher. Any inequity in relation to site charges can be adjusted over time.

Consolidated revenue

MSB was funded through consolidated revenue prior to 2009. Consolidated revenue is the simplest (that is, lowest compliance cost) method of funding safety regulators and also provides good incentives

for regulators to be cost effective, as they have to persuade Treasury of the need for higher funding, rather than being able to require the regulated to just pay more.

AMEC and APLA appear to be in agreement with this point of view, preferring for MSB to be funded by consolidated revenue and not from a user pays arrangement. WA CME did not state that it is against a user pays system, but stated that they should be able to see where the money is being spent and that it is making a difference.

To the extent that society is the main beneficiary of stricter safety standards, there is an argument that the government should pay regulator costs. However, there is also the allocative efficiency issue that those who are ultimately responsible for accidents – the mining companies – are not paying the full costs of their lack of safety, which includes the regulatory effort needed to ensure safety standards.

The other significant concern with this approach is that in an era of constrained budgets, governments may chip away at regulator budgets until eventually a disaster occurs. The New Zealand Royal Commission Review (2012) into the Pike River disaster found that an under-resourced inspectorate was a contributory factor.

User pays

A user pays scheme would be similar to the per-site charge option above, but instead of 11 broad categories, the employer would be charged for the actual hours or effort required to inspect a site. There is scope under the NOPSEMA model to charge actual costs for safety investigation levies.

Only those activities, for example inspections, that can be attributed to a particular user, and for which costs can be allocated in a reasonable and transparent manner should be subject to variable cost recovery charges. Other activities, such as developing training materials or corporate overheads, would be covered by fixed license fees (preferably on a pro-rata basis, such as number of FTEs). Prosecutions could be funded by appropriations or devolved to a line agency.[43]

A user pays method would closely align costs to likelihood of incidents, and regulator costs would be closely monitored by mine owners. However, compliance costs would be high, and regulators may have an incentive to “over inspect” facilities, as this would increase income.

Levy on workers’ compensation premiums – mining industry only

A levy on workers’ compensation is the approach used by NSW. Recognising that mining is inherently more complex and dangerous than most other industries, NSW has a stand-alone regulator (Mine Safety), which is paid for by a levy on workers’ compensation premiums paid by mining companies.

A premium on workers’ compensation has low compliance costs – if you are a mining company you pay the levy: if not, you don’t. The method scores reasonably well on allocative efficiency (refer to Table 23). Companies with large workforces – and thus arguably more likelihood of incidents – pay more. Additionally, companies with poor safety records pay more, because their premiums are higher, and the levy is a percent of premiums. However, to the extent that the regulator determines the size of the surcharge, it has little incentive to contain costs.

Levy on workers’ compensation premiums – all industries

Most states have a general regulatory agency that is responsible for safety in all industries, including mining. In some states, this agency is paid for a levy on workers’ compensation premiums from every industry (including mining). Again, compliance costs are low. But allocative efficiency is compromised, as inherently dangerous industries such as mining (or construction or transport) do not contribute any more towards safety reduction costs than do safer industries such as public administration or retail services (although, individual firms with poor safety records may pay higher premiums and thus higher contributions to regulatory effort).

In some ways, incentives for regulator cost containment are even lower than under a mining only premium surcharge because the most dangerous industries – who would otherwise pay the most - are effectively cross-subsidised, they are less likely to complain about regulator costs.

Per worker levy

Queensland currently pays for mine safety through a “poll tax” of approximately $800 per mine worker. The method is still reasonably simple from an administrative perspective. If John Smith is deemed to be an employee by the relevant industrial relations law, the mine company pays the levy. It also has some allocative efficiency in that the more employees a company has, the more incidents the organisation may have. However, again, there is little to hinder the regulator from adopting a “cost plus” approach.

Per worker, per hour levy

A per worker, per hour levy is the current approach used to fund MSB. Compliance costs can be very high. As noted in Section 7.7, industry has complained that compliance costs are greater than the

[43] This is the model adopted by Comcare for providing regulatory services to self-insured licensees, https://www.comcare.gov.au/about_us/access_to_information/information_publication_scheme/our_finances/our_finances/comcare_cost_recover_implementation_statement_2015-16

actual levy. A per worker, per hour levy method is adequate on allocative efficiency, as accidents are a function of hours worked. But accidents are also a function of the physical size and nature of the mine too, which unlike the per site charge option, is not captured in charge rates.

As with the other options where charges are not related to regulator effort, there is little incentive for regulators to contain costs.

Summary

To compare funding options, Table 23 assigns a simplistic weighting to the above criteria, where 3 is good, 2 is average and 1 is poor. It further assumes that compliance costs, allocative efficiency and cost effectiveness have equal value (i.e. these factors are not weighted).

Using this method of simplistic comparison, and subject to the view taken on single licence to operate, a per site charge similar to NOPSEMA's appears to offer the best balance between allocative efficiency and compliance costs, while also conferring some incentives for regulatory cost effectiveness. The NOPSEMA categories could be adopted to (for example) 12 mining categories with a matrix of small medium and large; underground or surface; and commodity.

Table 23: Relative merits of selected funding options

Mine safety regulator paid for by	Compliance costs	Allocative efficiency	Regulator cost effectiveness	Total
Per site charge (by type and size)	3	3	2	**8**
Single licence to operate	3	3	2	**8**
Consolidated revenue	3	1	2	**6**
User pays charge	2	3	1	**6**
Levy on workers comp premium – mining only	3	2	1	**6**
Per mine worker levy	3	2	1	**6**
Levy on workers comp premiums – all industries	3	1	1	**5**
Per mine worker per hour levy	1	2	1	**4**

Note: higher score is better. Rankings are ordinal. Efficiency is in regard to regulator costs.

8.3 Summary of '*MSB risks and funding options for the future*''

In summary, the key points are:

- The current levy model is not the best fit for industry – and there are other options out there. We suggest that these models be further interrogated, consulted with industry and a cost benefit analysis be undertaken to see feasibility
- Our preferred approach, acknowledging that feasibility needs to be determined, is a streamlined, tiered, single licence to operate approach that reduces red tape for DMP and industry
- We recommend that if a cost recovery mechanism is going to be maintained (i.e. not changed back to funding from consolidated revenue) the per site charge method should be selected
- Whatever funding model is adopted, principles of transparency, accountability and fairness should be adopted, in line with the ANAO best practice principles
- The independence of the regulator must not be compromised.

References

Australian Government, Department of Industry, Innovation and Science 2016, *Resources and Energy Quarterly,* Vol 5, No. 3, ISSN 1839-5007 (referenced as Commonwealth Department of Industry)

Australian National Audit Office, 2014, "Administering Regulation: Achieving the Right Balance" (viewed 11/05/2016, https://www.anao.gov.au/sites/g/files/net616/f/2014_ANAO%20-%20BPG%20Administering%20Regulation.pdf)

Deloitte, 2008, "*Is Your Organization Pyramid Out of Shape? Our perspective on designing the appropriate number of layers and spans of control*"

Deloitte, 2015, *Deloitte WA Index – Reshaping the Future, Diggers & Dealers Special Edition*, August 2015 Viewed 01/04/2016, http://www2.deloitte.com/au/en/pages/about-deloitte/articles/diggers-dealers-special-edition-2015.html)

DMP, 2015, *Annual Report 2014-15* (viewed March 2016, http://www.dmp.wa.gov.au/Documents/About-Us-Careers/Department_of_Mines_and_Petroleum_Annual_Report_2014-15.pdf)

Gilroy A, 2008, *Will increasing prosecutions improve occupational safety and health performance?* Paper presented to the WA Safety Conference 2008. https://sia.org.au/downloads/SIGs/Resources/Microsoft_Word_-_Will_increasing_prosecutions_improve_OSH_performance_PAPER.pdf

Gunningham N, 2007, *Mine Safety Law Regulation Policy*, The Federation Press.

Kenner 2009, *Department of Premier & Cabinet WA 2005*, http://www.dmp.wa.gov.au/Dangerous-Goods/Statutory-and-other-reviews-and-6532.aspx

National Mines Safety Framework (NMSF) 2009, *Implementation Report*, (viewed 13/05/2016, http://www.industry.gov.au/resource/Documents/Mining/NMSF-Implementation-Report-June2009.pdf)

NZ Government, 2012, *Royal Commission into the Pike River Coal Mine Tragedy, Volume 1, Overview*, October 2012, ISBN 978-0-477-10377-0 (viewed March 2016, www.pikeriver.royalcommission.govt.nz)

Price Consulting Group Pty Ltd, 2015, *Review of Investigation Services Branch*, Nov 2015 (Internal report for DMP).

Productivity Commission 2010, Performance Benchmarking of Australian Business Regulation: Occupational Health & Safety, Research Report, Canberra, ISBN: 978-1-74037-310-4

Quinlan M, 2014, *Third Audit of the Mine Safety Unit and Office of Chief Inspector of Mines*, WorkSafe Tasmania, April 2014

Research Solutions, 2011, *Results of 2010 Baseline Perceptions Survey of Resources Safety Stakeholders.*

Safe Work Australia 2015, The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community: 2012–13, ISBN 1 920763 58 9

Sparrow MK, 2000, *The Regulatory Craft: Controlling Risks, Solving Problems and Managing Compliance*, The Brookings Institution

WA Department of the Treasury 2016, *Western Australia 2016-17 Budget: Economic and Fiscal Outlook* (Budget Paper No.3).

Appendix A - assessment terms of reference

Terms of Reference

Review of the Department of Mines and Petroleum Resources Safety Division Mines Safety Branch Resourcing and Funding

Objectives

The objective of this review is to determine if the Mines Safety Branch is appropriately resourced and structurally organised for effective and efficient regulation of occupational health in the Western Australian mining sector.

The review will assess the fairness, equity and effectiveness of the current Mine Safety Levy regime in funding the Mines Safety Branch.

The review will also determine if there are adequate and appropriate systems and processes in place for the administration and enforcement of the *Mines Safety and Inspection Act 1994*.

Scope and Criteria

Regulator Resourcing

- Examine what is required to ensure that the Mines Safety Branch is adequately resourced in terms of staff and funding to undertake the activities that effectively and efficiently enable enforcement of the *Mines Safety and Inspection Act 1994.*
- Compare Western Australia with other Australasian mining inspectorates in terms of staff and funding.
- Review progress made in addressing the recommendations of the Kenner Report 2009.
- Assess the fairness, equity and effectiveness of the current Mine Safety Levy regime.

Regulation Process

- Examine what work is undertaken by the inspectorate in compliance with its duties under the *Mines Safety and Inspection Act 1994.*
- Examine what activities are undertaken that are in addition to those required by the objects of the *Mines Safety and Inspection Act 1994.*

Performance of the Regulator

- Determine if the Mines Safety Branch is appropriately structured to undertake the duties required of it.
- Determine if the activities undertaken are appropriate efficient and effective in achieving the objects of the *Mines Safety and Inspection Act 1994.*

Methodology

The review will consider the structure and activities of the Mines Safety Branch and their suitability in meeting the objects of the *Mines Safety and Inspection Act 1994*.

The review will analyse the resourcing required for effective and efficient operation of the

regulatory function in compliance with the objects of the *Mines Safety and Inspection Act 1994*.

The review will include input from appropriate industry stakeholders such as the Association of Mining and Exploration Companies (AMEC) and the Chamber of Minerals and Energy of Western Australia (CMEWA).

Boundary

The review will investigate the current structure and operational plans for the 2015/16 financial year.

The review will compare the staffing and resourcing of comparable inspectorates within Australia and New Zealand.

Prior Reviews Conducted

The Reform and Development at Resources Safety (RADARS) initiative was undertaken in response to the Kenner Report 2009. A significant number of recommendations within this report relate to the resourcing and operation of the Mines Safety Branch.

Schedule

The review is planned to commence in March 2016 with a draft report to be issued in May 2016.

Completion of the final report is expected in June 2016.

Appendix B – DMP stakeholders consulted during the assessment

Name	Position
Richard Sellers	Director General
Simon Ridge	Executive Director - RSD
Michelle Andrews	Deputy Director General - Strategic Policy
Phil Gorey	Executive Director - Environment, Approvals & Compliance
Mick Banaszczyk	Executive Director - Corporate Support
Andrew Chaplyn	Director - Mine Safety Branch & State Mining Engineer
Neil Woodward	Regional Inspector North
Anil Atri	Senior Inspector of Mines
Craig Little	Inspector of Mines
Warren Mitchell	Inspector of Mines
Ian McKay	Inspector of Mines
Andrew Harris	Inspector of Mines
Ian Misich	Inspector of Mines
Waeel Ilahi	Team Leader – Inspector of Mines
Haydn Middleton	Manager Budget Management
James Achard	Senior Business Analyst
Nick Melanko	Principal Business Analyst – Financial Planning
Jim Lawrence	Financial Services Officer, RSD Support Services
Colin Boothroyd	GM Investigations, Strategic Policy
Don Frayne	General Counsel, Legal Services, Strategic Policy
Jeremy Johnston	Legal Manager - Prosecution, Legal Services, Strategic Policy
Mary Chau	Programme Manager SRS
Alan Holmes	Lead Investigator
Philip Hine	Director Licensing & Regulation
Su Ho	GM Business Development
Marka Haasnoot	GM HR
Rosemary Barrow	Manager Employee Benefits and Reporting, HR
Ray McQueen	HR
Simon Florinson	Information Services, Corporate Support
David Eyre	Principal Policy Officer
Melina Newnan	Legal Officer
Aaron Bender	Board of Examiners
Scott Donaldson	Board of Examiners
David Aiton	GM IA
Kim Colquhoun	Acting GM IA

Appendix C – materials examined as part of the assessment

- Accident and Incident Investigations Document Map (From QMS)
- ARI Performance, dated 1 July to 31 December 2015
- Attendee Comments: Statutory Positions, dated 10 March 2016
- Attraction And Retention Incentive (ARI) Policy
- Attraction and Retention Incentive- Milestone (ARI-M) Assessment
- Attraction and Retention Options - Remote Areas, dated 4 April 2016
- Audits & Notices, dated 25 May 2016
- Baseline Perceptions Survey Of Resources Safety Stakeholders - Results
- Copy of Active Mines
- Cover RSD Magazine RADARS Info Part 1 Of 2
- DMP Capability Framework
- DMP Re Safety Levy, dated 28 July 2015
- Employee Travel Payments, dated 25 June 2012
- Enforcement Review Panel Minutes & Terms of Reference
- Expertise Requirements for MSB Post 2016_Intnl Memo DMP, dated February 2016
- Fatal Accidents in MINING 2000-12, dated 2014
- Final CME Letter to RS Re DMP Levy Increase 2015, Version 1.0, dated 24 August 2015
- Final Letter to DMP RSD Re Safety Levy 1.0, dated 11 October 2013
- Final Signed Letter CME to Minister Mine Safety Levy, Version 1.0, dated 22 December 2015
- Guidelines for Attraction and Retention Incentives in the WA Public Sector, dated 4 April 2016
- Guidelines for Calculating the Mines Safety and Inspection Levy, dated February 2016
- Inspections.xlsx. dated 25 May 2016
- Investigations Policies
- Investigations Process Flowchart
- Kenner Stats and RADARS Achievements, dated 25 May 2016
- Letter to Minister Marmion Re Mine Safety Levy, dated 23 December 2015
- Letter to Norman Moore on Regs, Version 1.0, dated 18 May 2010
- Letter to Norman Moore, Version 1.0, dated 9 February 2010
- List of Internal Audits
- LSB Prosecutions Process Flowchart from Don Frayne
- Mine safe Dec09 RADARS - Main Drivers, dated December 09
- Mine safe Dec11 RADARS - Initiatives, dated December 11
- Mine safe Oct121 RADARS - Recruitment and Survey, dated October 12
- Moore Response to 18 May Letter, Version 1.0, dated 23 June 2010
- MSB Operational Plan 2015/16 (3p), dated 15 March 2016
- MSB Operational Plan 2015-16, dated 2 May 2010
- MSB Review of Notices Final Report, dated August 2011
- Norman Moore Response, Version 1.0, dated 12 March 2010
- Perceptions Survey of Resources Safety Stakeholders – Results 2012
- Perceptions Survey of Resources Safety Stakeholders – Results 2014
- Premiers Award Submission
- Qualitative Benchmarking - IB, dated 18 March 2015

- Reply From Richard S - Safety Levy Increase - 8 September, Version 1.0 2015, dated 8 September 2015
- Report Review of Investigation Services Final 231115, dated 1 November 2015
- Resources Safety & Investigations Operational Plan 2015/16, dated 21 March 2016
- Resources Safety Matters_ SRS Enhancements Coming Soon Article Feb 2016, dated 01 Jul 2015 to 30 Jun 2016
- Review Of The Mines Safety And Inspection Act 1994 By Commissioner S J Kenner, dated 7 April 2016
- RSD Response to CME Mine Safety Levy Letter, Version 1.0, dated 5 November 2013
- RSD Travel Directive 22 Feb 2016, dated 22 February 2016
- SRS Deliverables Rollout by Release
- Statutory Positions And Competencies, dated 14 April 2016
- Statutory Positions Consultation AA April 2016.
- Summary of Current Mines Safety Prosecutions, dated 24 March 2016
- Summary of Expenses 2015/16
- Summary of Prosecutions Undertaken
- Terms of Reference
- What Is RADARS?
- WHS (Resources) Regulations Statutory Positions for Mines, dated 10 March 2016
- Workforce planning-2015, dated 26 March 2015
- Workshop Notes: Statutory Positions, dated 10 March 2016
- Workshop policy discussion paper for 'Statutory Positions' within the mining industry, dated 10 March 2016

Procedures

- Administration – Mines Safety improvement and prohibition notices, dated 31 March 2015
- Approved procedure - Attraction and Retention Incentives dated 2 May 2010
- High impact function (HIF) audit, dated 23 December 2015
- Inspector of mines appointment, dated 3 October 2013
- Investigations – gathering evidence and taking photographs, dated 26 March 2014
- Issue of mines safety improvement and prohibition notices, dated 23 December 2015
- Mine site inspection, dated , 23 December 2015
- Mines Safety Branch - Complaint Investigation – Health and Safety, dated 7 December 2015
- Mines Safety Branch – quarterly and KPI reporting operation, dated 29 December 2015
- MSB Policies and procedure, dated May 2016
- Project management plan assessment, dated 19 June 2014
- Radiation management plan assessment, dated 4 August 2010
- Referral of improvement notice or prohibition notice for review, dated 14 July 2013
- Resources Safety Division – Mines Safety Branch - Complaint Investigation – Alleged Bullying, dated 7 December 2015
- Resources Safety Division – Mines Safety Branch - Incident Investigation, dated 7 December 2015

Reports

- ACG, 2016, *March 2016 Newsletter*, Vol. No. 44, Australian Centre for Geomechanics, UWA
- Achard J, 2016, *Guidelines for calculating the Mines Safety Inspection Levy, DMP Business Modelling & Analysis - Financial Planning*, Feb 2016 (DMP Internal Report)
- Boothroyd C, 2015, *Memorandum from Colin Boothroyd (IB GM) to Michelle Andrews/ Simon Ridge,* (DMP internal document, dated: 26/03/15)
- Boothroyd C, 2016, *Qualitative benchmarking of investigation processes and compliance committees – Procedures followed by other Australian jurisdictions,* (DMP internal document, dated 18 Mar 2016)
- Ridge S, 2016, *Response to questions for the Mines Safety Review*, Release Classification: Addressee and Within Government Only, 4p., (Stat Positions Consultation AA April 2016.docx – Perth in email received 21/04/16)
- Final Report RADARS, dated December 11
- Mines Safety Branch – Quarterly and KPI Reporting Operation – Guideline, dated 29 December 2015
- Mines Safety Costing Model Audit Final Report, dated March 2011
- MSB Review of Notices Final report, dated August 2011
- Report Review of Investigation Services Final 231115, dated 1 November 2015

- Serious Injury report MINING 2015
- SRS Reporting Investigations Roy Hill 2016
- DMP, 2011, *Audit of Mines Safety Cost Model – Final Report*, March 2011 DMP File No A1643/201001 (by Internal Audit)
- DMP, 2011b, *Audit of the Mines Safety Notices – Final Report*, Aug 2011 DMP File No A0110/201101 (by Internal Audit)
- DMP, 2012, *Audit of the RADARS training program – Final Report*, Dec 2012 DMP File No A0716/201201 (by Internal Audit)
- DMP, 2013, *Analysis of serious injury data in the WA mining industry, July-Dec 2013*, (by Investigations Branch, from DMP website)
- DMP, 2014, *Fatal accidents in the WA mining industry - 2000-2012*, (by Investigations Branch, from DMP website)
- DMP, 2014b, *Sparrow explored the challenges of risk based regulation*, Resources Safety Matters, vol. 2, no. 2, May 2014
- DMP, 2014c, *How are we doing?*, Resources Safety Matters, vol. 2, no. 3, Oct 2014
- DMP, 2015, *Annual Report 2014-15* (viewed March 2016, http://www.dmp.wa.gov.au/Documents/About-Us-Careers/Department_of_Mines_and_Petroleum_Annual_Report_2014-15.pdf)
- DMP, 2015b, *Resources Safety Achievements and Performance 2014-15* (viewed 01/04/2016, http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201415.pdf)
- DMP, 2016, *Workshop policy discussion paper for 'Statutory Positions' within the mining industry,* Release Classification: For Public Release, 18p.
- DMP, 2016b, *Workshop Notes: Statutory Positions*, 000334.Peter.PAYNE.docx, Release Classification: Address Use Only, 8p.

Magazines

- RSD Magazine RADARS Info Part 2 Of 2
- RSM Magazine Feb15 RADARS - SRS, dated February 2015
- RSM Magazine Jan13 RADARS - Recruitment, dated January 13
- RSM Magazine Feb16RADARS - Survey and reporting, dated February 2016
- RSM Magazine May14 - Sparrow Article, dated May 14
- RSM Magazine May14-Sparrow Article, dated May 14
- RSM Magazine Sep13 RADARS - Initiatives, dated September 13
- RSM Magazine Sep15 RADARS - Recruitment, dated September 15
- RSM Magazine Oct14 RADARS - Survey and Initiatives, dated October 14

Organisational charts

- Organisational chart - Andrew Chaplyn Director Mines Safety, dated 15 March 2016
- Organisational chart - Colin Boothroyd GM Investigations, dated 15 March 2016
- Organisational chart - Don Frayne General Counsel, Legal Services, dated 15 March 2016
- Organisational chart - Executive Functional Structure, dated 1 July 2015
- Organisational chart - Philip Hine Director Licencing & Regulation, dated 15 March 2016.

Appendix D – CME WA submission

Submission
May 2016

CME Submission to the Review of the Mines Safety Branch Resourcing and Funding

Chamber of Minerals and Energy Western Australia

Contact
Adrienne LaBombard
a.labombard@cmewa.com

The Chamber of Minerals and Energy of Western Australia Level 10, 2 Mill Street, Perth, Western Australia
Locked Bag N984, Perth WA 6844 **p** +61 8 9220 8500 **f** +61 8 9221 3701 **e** chamber@cmewa.com **w** cmewa.com

Contents

About CME

The Chamber of Minerals and Energy of Western Australia (CME) is the peak resources sector representative body in Western Australia. CME is funded by its member companies, which generate 95 per cent of the value of all mineral and energy production and employ 80 per cent of the resources sector workforce in the state.

The Western Australian resources sector is diverse and complex, covering exploration, processing, downstream value adding and refining of over 50 different types of mineral and energy resources.

In 2014-15, the value of Western Australia's mineral and petroleum production was $99.5 billion. Iron ore accounted for approximately $54 billion of production value to be the state's most valuable commodity. Petroleum products (including LNG, crude oil and condensate) followed at $24 billion, with gold third at $9 billion.[1]

Notwithstanding the recent decline in the price of several export commodities, the estimated value of royalties the state received from the resources sector still composed almost 15 per cent of estimated total state revenue in 2015-16, or around $3.8 billion.[2]

As at March 2016, there was approximately $94 billion in resources sector projects committed or under construction in Western Australia and a further $44 billion in proposed or possible projects.[3]

Recommendations

Good Practice Regulation

- **Recommendation1: CME recommends the Mines Safety Branch develop, in consultation with industry, a detailed regulatory strategy and set of priorities to support transparency and build trust in the effectiveness of the regulator.**
- **Recommendation 2: CME recommends the Mines Safety Branch articulate how the regulatory strategy will be implemented in practice including, among other aspects, the approach to and forward plan for regulatory activities such as audits and inspections.**
- **Recommendation 3: CME recommends the Department of Mines and Petroleum (DMP) consider developing tools and processes explicitly aimed at reducing inconsistency in Mines Safety Branch regulatory decisions.**

Measuring the effectiveness of the Regulator

- **Recommendation 4: CME recommends the Mines Safety Branch consider supplementing their quantitative measures of regulatory activity with measures of the quality of regulatory and educational activities to provide more meaningful indicators of their effectiveness.**

---

[1] Department of Mines and Petroleum (DMP), 2015, *Mineral and Petroleum Industry 2014-15 Review*, www.dmp.wa.gov.au/1525.aspx, p. 1

[2] Department of Treasury, 2015, *2015-16 Government Mid-year Financial Projections Statement*, p. 14

[3] DMP, 2015, *Latest Resources Investment Release*, www.dmp.wa.gov.au/About-Us-Careers/Latest-Resources-Investment-4083.aspx

- **Recommendation 5: CME recommends the Mines Safety Branch develop indicators which measure progress with regulatory improvements.**
- **Recommendation 6: CME recommends the Mines Safety Branch provide feedback on positive and negative findings from inspections, audits and investigations. Feedback on what can be learnt from incidents and near misses and examples of good practice should be shared in a systematic and transparent way to promote industry-wide learnings.**

Promoting and Securing Compliance by Duty Holders through Leadership, Guidance, and Education

- **Recommendation 7: CME supports the Mines Safety Branch in undertaking education and awareness raising activities and providing guidance and other supporting material. However, CME recommends these activities be guided by a clear regulatory strategy and details provided to articulate how the development of this material and focus of events fits with a risk based regulatory approach.**
- **Recommendation 8: CME recommends the Mines Safety Branch support the development and implementation of the regulatory strategy, as recommended above, through the inclusion of the priorities and targets for professional development, including target competencies and skill sets for inspectors.**

The Mines Safety Inspection Levy

- **Recommendation 9: CME recommends the Mines Safety Branch undertake a review of the design of the Levy in consultation with stakeholders with a view to implementing a more efficient cost recovery model.**
- **Recommendation 10: CME recommends implementation of a formal process for reviewing mine safety Levy expenditure and referral to MIAC for advice on the effectiveness and prioritisation of non-core activities such as education, events, publications and training.**
- **Recommendation 11: CME recommends the Mines Safety Branch should publish a more detailed breakdown of Levy revenue and expenditure to increase transparency and to provide clarity around the need for adjustments in the levy rate.**

Context

The Chamber of Minerals and Energy of Western Australia (CME) strongly supports an independent, effective, efficient and accountable regulator to support continuous improvement in safety and health outcomes across the Western Australian resources sector.

Health and safety for all those who work in the industry and their families is of utmost importance and safe and reliable operations are an essential component of a sustainable resources industry. CME has long appreciated a collaborative relationship with the Mines Safety Branch and has taken an active part in working with the Department of Mines and Petroleum (DMP) and WorkSafe Western Australia towards shared safety and health objectives.

The Independent Review of the Mines Safety Branch Resourcing and Funding (the Review) takes place in the context of improving safety and health performance. As measured by accident data over the last ten years fatality and serious injuries have continued to decline punctuated by the industry's achievement of a fatality free year in 2011-12. This positive trend is attributable to the ongoing efforts of all parties including government, the workforce and companies. However, it is recognised further improvement is necessary and the resources industry is committed to ongoing efforts to improve safety and health outcomes.

The resources sector in Western Australia is experiencing significant change on a number of fronts. Throughout 2015 the sector continued to undertake a significant shift from construction-led growth through to operational growth. As more projects commence operations, this will lead to a smaller overall workforce and greater overall exports.

Greater exports in the global market have also seen the prices of several commodities fall and it appears likely the sector is now moving toward normalised, cyclical pricing patterns. The decline in commodity prices has affected companies, put pressure on margins and the viability of some operations. It has also impacted employment across the sector, with the recent reduction in workforce numbers attributable to a combination of both companies' profitability and the transition of projects from the construction phase to the operations phase. However, as a result of investment over the past decade, the base level of employment in the sector remains more than double the level of a decade ago.

Taking into account this background, the CME welcomes this Review as an opportunity to further improve the effectiveness, efficiency and accountability of the Mines Safety Branch and in turn the operations of the companies whose activities it regulates. In support of this goal, CME has identified a number of areas in which further improvements to the regulatory approach and activities of the Mines Safety Branch are required to ensure the mining industry continues to be supported by an independent, accountable, efficient and effective regulator. Specific areas for improvement are discussed in the following sections of this submission.

Approach to Submission

In preparing this submission, CME has carefully considered the key characteristics of an effective, efficient and good practice guidance regulator. To do this we have drawn on DMP resources wherever possible, as well as other guidance and information published by other well regarded regulatory systems.

CME has also drawn on the extensive firsthand experience of our members through their direct interactions with the Mines Safety Branch. In addition, many of our members have wide experience of safety and health regulation in a number of different jurisdictions, both in Australia and globally. Some have even worked as front line regulators. To collect this feedback CME surveyed our members on the performance and approach of the Mines Safety Branch in a standardised format via an online survey collection tool, SurveyMonkey,

to collect qualitative (and anonymised) data. Additionally, a number of phone interviews with members were conducted to facilitate more detailed feedback. Finally, we prepared a summary of the typical characteristics of a modern safety regulator drawn from a range of published sources (including the DMP). We used these characteristics as a benchmark to assist us in comparing the industry's practical experience of the Mines Safety Branch with what is generally regarded as good practice regulation.

Good Practice Regulation

Role of the Regulator

CME considers it is possible to identify generally accepted good practice principles and characteristics of a safety and health regulator. In this section, we have prepared a summary of the typical characteristics of a modern best practice regulator drawn from a range of sources. These include:

- A range of published sources which discuss regulatory principles and practice, both from Australia and overseas (including the DMP);
- The practical experience of our member companies working with regulators in Western Australia and more widely; and
- Personnel in our member companies who have firsthand experience of regulation obtained from working as regulators as well as contact with regulators in a variety of jurisdictions (including the DMP) against which we used help inform our practical experience of the Mines Safety Branch.

We have used the information available from these sources to summarise the characteristics of good quality safety and health regulation and used this as a way to identify good performance and areas in which we consider further improvement is appropriate.

Accident and Ill Health Causation Models – how and why do unwanted events occur?

Before discussing the role of the regulator, it is worth considering how incidents occur. In other words, what are the underlying models or assumptions normally used to explain why unplanned events, such as accidents, incidents and ill health occur? Without considering this point it is difficult to make a judgment about the goals and practices of the Mines Safety Branch. Furthermore, if there was a significant difference in assumptions (as to how incidents occur) on the part of the companies and the regulator, there would be the potential for unhelpful conflict.

For the purposes of this submission, CME have assumed most incidents occur as a result of a failure to have the appropriate defences or as the legislation describes it "controls"[4] in place to prevent the unwanted results. This can be referred to as the "Swiss cheese model" of incident causation. Our understanding is that this model of risk control is the prevalent risk management approach used by both the DMP and the mining industry. A summary of the Swiss cheese model and a control focussed approach is given in Annex I.

What is the role of the regulator in this context?

The Mines Safety Branch's role is to provide the framework and direction to industry to manage risks. Legislation provides the legal structure and articulates the goals to be achieved. Section 3(1)(c) of the *Mines Safety Inspection Act 1994* (MSIA) requires duty-holders "to eliminate risks or provide and impose effective controls"[5]. However, it should be

[4] Mines Safety and Inspections Act 1994 No 06, p. 2, https://www.slp.wa.gov.au/legislation/statutes.nsf/main_mrtitle_599_homepage.html Accessed 13/4/16

[5] Mines Safety and Inspections Act 1994 No 06, p. 2, https://www.slp.wa.gov.au/legislation/statutes.nsf/main_mrtitle_599_homepage.html Accessed 13/4/16

noted that the legislation (for the most part) describes what duty-holders such as mining companies are expected to achieve as well as the responsibilities of some other parties including workers.

However, the legislation does not explain how the regulator should go about its duties. For example, the MSIA does not prescribe how Inspectors should go about their regulatory activities, how they should conduct inspections, what they should look at, nor at what frequency. The strategic goals of the regulator and the practices employed to achieve these goals are therefore left to be determined and documented by the regulator in conjunction with stakeholders including employers and their representative groups. CME considers it is critical these strategies and practices are clear to all parties.

At present industry's expectation for the regulatory strategy to be transparent, clearly articulated and grounded in an assessment of risk is not being met and this is discussed amongst other issues below.

Reform and Development at Resources Safety

The DMP started the Reform and Development at Resources Safety (RADARS) Project in 2010. This program in conjunction with supporting material such as "Towards leading practice safety regulation"[6] articulates a series of goals and aspirations for the regulators working under the auspices of the DMP. These goals are in accord with recognised Australian and international good practice and are supported by CME[7]. In addition, these goals align with the key strategies in the DMP 2015-18 Strategic Plan to *'pursue operational safety, environmental performance and resource management and title administration that is world class'*[8]. A key question for CME and our members is the extent to which the Mines Safety Branch has effectively implemented these goals and aspirations over the last 5 years or so. This is discussed in the next sections of our submission.

Regulatory Strategy

Under the heading of "Achieving Safety Compliance" the document *Towards leading practice safety regulation* articulates a number of goals or principles:

- The risk profile of the operation or activity is determined
- A strategy is established to deal with identified risks
- Awareness is generated
- Targets and work plans are established
- Training and information is provided to staff
- Enforcement action is taken if needed
- Effectiveness of compliance strategy determined by monitoring changes in risk profile

CME recognises the importance of these principles. However, industry considers more detail is required to demonstrate that these principles are applied effectively and efficiently. In particular, CME considers by providing more detail and greater consultation there is the prospect of achieving even better results on health and safety as if both member companies and the regulator are "on the same page" the results could be even better. Furthermore,

---

[6] Government of Western Australia, *Resource Safety – towards leading practice safety* regulation, http://www.dmp.wa.gov.au/Documents/Safety/MSH_IS_TowardsBestPracticeSafetyRegulation.pdf Accessed 20/4/16

[7] Australian National Audit Office (ANAO), *Administering Regulation - Better Practice Guide*, 2014, http://www.anao.gov.au/~/media/Files/Better%20Practice%20Guides/2013%202014/ANAO%20-%20BPG%20Administering%20Regulation.pdf, Accessed 28/2/16

[8] Government of Western Australia, *Department of Mines and Petroleum Strategic Plan 2015-18*, http://www.dmp.wa.gov.au/Documents/About-Us-Careers/Our_Plan_for_Success_2018.pdf

without additional detail it is not possible to effectively judge if the regulatory activity experienced by our members is appropriate.

As is mentioned above, CME strongly supports the concepts articulated in the DMP the RADARS and "Towards leading practice safety regulations" documents. However, the documents are focused on high level principles and lack the underpinning detail necessary to see how they are intended to be implemented in practice. If further supporting detail exists, CME is not aware of where this can be accessed and feedback from our members suggests there is a lack of clarity around the implementation strategy.

By comparison, CME notes other regulators provide significantly more detail as to how they implement their overarching principles[9][10].

A clearly documented implementation strategy to be utilised by the Mines Safety Branch to meet the aims and objectives outlined in the above documents is important to ensure industry can have a clear expectation regarding regulatory approach. Transparency around the detail which underpins the regulatory approach is also critical for supporting a shared understanding and building trust and collaboration.

The above documents would further benefit from the inclusion of specific deliverables against which the Mines Safety Branch can measure progress towards RADARS program objectives. These deliverables should be clear and transparent so that industry can monitor the performance of the regulator in achieving these objectives. This issued is discussed in more detail below.

A Regulatory Strategy for the Mines Safety Branch

CME considers a regulatory strategy is needed for the mining industry in Western Australia as a whole, which in turn is implemented in accordance with the risk profile of a particular sector and operation. For example, underground gold mining presents a different risk profile to mineral sands operations. A documented strategy should take into account the important differences.

A published strategy will need to address a broad range of hazards and risks including:

- Relatively frequent but lower consequence (but no less important) injuries, often referred to as slips, trips, sprains and strains to fatal accident risks usually manifested in single or rarely one or two fatalities from rock falls, falls from height and contact with machinery and vehicles and so on.
- Rare, but potentially catastrophic events, such as underground fires and explosions.
- Occupational health hazards such as respiratory disease or occupational cancers which may present special regulatory problems because of their lack of visibility compared with a safety hazard, potentially long latency periods and the so called "healthy worker effect.[11]"
- Health and wellbeing issues where the work and non-work background is intertwined.

---

[9] For an HID example see http://www.nopsema.gov.au/assets/Policies/N-02000-PL1523-Inspection-Rev-1-March-2015.pdf"ADD, and

[10] The NSW Department of Industry, Division of Resources and Energy, Mine Safety Regulatory Reform, Incident prevention strategy, 2016, http://www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0010/593452/Incident-prevention-strategy.pdf, Accessed 3/5/16

[11] The healthy worker effect is the 'phenomenon observed initially in studies of occupational diseases; workers usually exhibit lower overall death rates than the general population because severely ill and disabled people are excluded from employment.' (*Farlex Partner Medical Dictionary*. S.v. "healthy worker effect." http://medical-dictionary.thefreedictionary.com/healthy+worker+effect Accessed 28/4/16)

A regulatory strategy is also needed to guide resource allocation and should take account of:

- Consideration of the skills needed in the regulatory organisation;
- Consideration of where the regulator and the companies should put their emphasis; and
- Considerations of whether some issues should be given greater attention than others on inspections and audits and whether some mines should be inspected more often than others

CME acknowledges the complexities around this and notes some risks are particularly difficult to deal with, for example occupational carcinogens and low probability, high consequence events. To develop a mining safety regulatory strategy, a broad view needs to be taken including taking into account relevant international experience, experience in other jurisdictions in Australia, as well as the particular circumstances of Western Australia.

The strategy can be made more detailed by considering if there are different priorities for different types of mining activity. For example, some regulators develop detailed strategies for different mining sectors and even companies which take into account local factors, such as the stage in the life cycle of the mine, the history of incidents, compliance and company attitude and so on.

A clearly understood regulatory strategy will also provide a framework which supports proactive compliance, continuous improvement and enables companies to focus risk management efforts on where they are most needed.

Recommendation 1: CME recommends the Mines Safety Branch develop in consultation with industry a detailed regulatory strategy and set of priorities to support transparency and build trust in the effectiveness of the regulator.

Regulatory Strategy in Practice

As discussed above, it is currently unclear to CME members to what extent a detailed regulatory strategy is in place and if one is in place, the extent to which it is implemented in practice.

For example, when we asked a senior safety professional in a well-known Western Australia mining operation if they knew of the Mines Safety Branch regulatory strategy their response was *'If you ask me what their strategy is - scatter gun approach - I just don't know'*. Another said *'The regulators appear to show up randomly with a focus on different things. It does not appear to be a strategy that we can see that is driving the different focuses'*.

The above comment highlights the need to ensure the regulatory strategy is clear and transparent and supported by sufficient detail to enable industry to monitor its implementation.

Frequency and focus of sites

The issue of frequency of site visits including audits and inspections has also been raised by CME members as an ongoing area of concern.

One mine site reported 6 visits to their site between the start of the year and mid-April 2016. These visits were typically 2/3 days in length by two inspectors, although one visit took place over 5 days. The rationale for this number of visits was not clear. There had not been any "spike" of incidents and nor were there any formal outcomes in terms of improvement notices.

In 2014/15 the Mines Safety Branch completed 2612 site inspections, a decrease from 3254 inspections the previous year (2013/14). A summary of the Mines Safety Branch

performance actions over the past three years, as the Annual Achievements and Performance Report[12] is in the table below.

Performance Actions	2012/13	2013/14	2014/15
Complaints	215	144	58
Inspections	2672	3254	2612
Audits	179	214	138
Investigations	42	69	15
Notifiable incidents	2599	2448	2375

CME considers the provision of a forward plan for site visits including planned focus areas based on the regulators analysis of incident and injury data and other risk factors is needed to provide industry with clarify regarding the approach and also facilitate industry's focus on critical risk areas as identified by the regulator.

CME is not suggesting the current number or focus of site visits is necessarily inappropriate. Further we acknowledge inspections are not always planned in advance and support the regulator's important role in responding to potential risks or compliance issues as needed. However, based on the information available it is not possible to assess the effectiveness of the current approach to site visits and to what extent this aligns with a risk based regulatory strategy.

Further, where possible, if the purpose, focus and expected frequency of site visits is made clear, industry will be better placed to receive inspectors on site and ensure appropriate staff are available to assist inspectors in reviewing various areas of site or explaining specific control measures.

Effectiveness of Inspections

In addition to comments about the frequency of inspections, another member said, *"inspections lack[ed] focus."* Answering the question of what inspectors look at and why, may well be linked to the regulatory strategy issue discussed above. For example, some members feel inspections and audits sometimes cover trivial matters, for example one member commented *"There may be a high risk activity, however the inspector may focus on a pothole in the road"*. Another said:

"The inspector's… emphasis …on inspection activities [is] identifying deficiencies. The majority of these are valid concerns. Missing is more of a systems review approach to evaluate if the principal hazards have been identified by the mine and effective (engineering) controls implemented to address likelihood and consequence. As a result regulatory directions through record book entries and improvement notices are missing the major hazards."

---

[12] Government of Western Australia, *Resources Safety Achievements and Performance 2012 – 2013,* http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201213.pdf, Accessed 20/4/16

Government of Western Australia, *Resources Safety Achievements and Performance 2013 – 2014,* http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201314.pdf Accessed 20/4/16

Government of Western Australia, *Resources Safety Achievements and Performance 2014 – 2015,* http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201415.pdf Accessed 20/4/16

This is an important subject which goes to the heart of the role of the regulator. CME respects and understands the role of the regulator in providing an "independent umpire" on health and safety. We understand the importance of a strong, capable and effective regulatory body plays in the overall sustainability of our industry. However, industry also looks to the DMP to use best practice regulatory techniques. In this context, CME considers best practice regulation involves (at a high level) making a judgment of the following:

- Has the company correctly identified the hazards and assessed the risks at their operation?
- Are appropriate controls in place (taking into account their design and implementation and the hierarchy of controls)?
- Does the company have appropriate processes and systems to detect failures in their risk controls?
- Are the controls and systems effectively monitored by the company?
- Is the leadership appropriately engaged in maintaining and implementing these processes?

If this approach to regulatory inspection and audits is accepted as a reasonable summary of one element of a regulator's activities, then the experience of CME members would call into question whether or not inspectors are following this model.

For example, audits and inspections for the most part appear to be predominantly site focussed. Whilst this is an essential part of the process (to identify what is working/not working at a site level in terms of risk management) it is not clear how inspectors are able to make a judgment of the effectiveness of the overall risk control process without talking to senior executives in the head office of member companies as part of this engagement.

This point was repeatedly brought up in interviews carried out as part of preparing this submission. CME considers regulatory engagement with company head offices are important opportunities to discuss, amongst other things, the regulator's practical experience on site of a company's management of health and safety and the degree to which senior management have effective oversight of the risk control process. For regulators in other jurisdictions this has proved a useful and successful process for both parties and seems entirely consistent with prevailing health and safety risk management practice which emphasises the importance of leadership in achieving good safety outcomes[13].

As outlined above, CME member company's experiences, allied to the absence of a detailed strategy, makes it difficult for the CME to have confidence this sort of approach is in fact being applied by the Mines Safety Branch[14].

Sampling

Regulators are not able to investigate and inspect all areas of an operation. As a result, sampling is inevitable and required by regulators. In the context of site visits, sampling is an important technique that assesses 'how well duty holders manage risk by testing and sampling duty holder arrangements in critical areas, including the key control measures'[15].

---

[13] See for example http://www.nopsema.gov.au/assets/Corporate/2015-Operational-Review-of-NOPSEMA.pdf p 22 which discusses inspectors' techniques which "...include assessing ...the extent to which risk controls are monitored by senior managers in the Duty Holder's office.

[14] For an example from another safety regulator as to how this could be done please see http://www.hse.gov.uk/hid/hid-regulatory-model.pdf

[15] See for example the UK HSE, *HID regulatory model,* 2013 which says; "The aim of HID regulatory intervention programmes is to:... Confirm, through sampling, that dutyholders have properly focused their risk management efforts on major accident hazards. http://www.hse.gov.uk/hid/hid-regulatory-model.pdf Accessed 20/4/16

However, the basis on which regulators carry out their sampling should be made explicit. This requires a published framework within which sampling can take place. This then legitimises the sampling process, which must mean some topics are not examined. For example, inspectors might be advised in relation to Principal Mining Hazards to focus on a certain proportion of preventive controls (using bow tie terminology) and a number of mitigating controls (i.e. those that minimise the consequences of an incident once it has occurred).

The priorities and focus of the sample of inspection topics should be guided by the overall regulatory strategy. These priorities should be made explicit without infringing on inspectors being able to exercise professional judgment. Some good practice regulators support this by publishing a framework within which sampling can take place. This then legitimises the sampling process, but provides some guidance to individuals. For example, inspectors might be advised in relation to Principal Mining Hazards to focus on a certain proportion of preventive controls (using bow tie terminology) and a smaller number of mitigating controls (i.e. those that minimise the consequences of an incident once it has occurred). Sampling also means that some activities will not be examined.

Further, expecting the regulator to inspect all activities on every visit would not only be impractical it would risk detracting a focus away from priority areas in the interest of covering more ground. Good practice regulators will provide publicly available guidance on this too.

Recommendation 2: CME recommends the Mines Safety Branch articulate how the regulatory strategy will be implemented in practice including, among other aspects, the approach to and forward plan for regulatory activities such as audits and inspections.

Consistency

Consistency, or the lack of it, is a well-known and often repeated criticism of regulators, particularly amongst those having to comply with the law referred to here as "duty holders."[16][17] Consistency in this context is taken to mean achieving similar outcomes from similar situations.

Dealing with such criticism usually requires clear guidance initially as to what is expected and legally enforceable, to both duty holders and regulatory personnel, backed up by training and briefing. However, the mere existence of clear guidance, whilst essential, may not be sufficient to address criticisms of inconsistency.

As a result some regulators deal with this by having a variety of processes or procedures aimed specifically at consistency. For example some regulators employ an enforcement management model (EMM)[18] which is based on the premise that inspectors should be able to articulate the gap between what is required in law and what the duty holder has delivered.

---

[16] Australian Government, Second Triennial Review of the Operational Effectiveness of the National Offshore Petroleum Safety Authority, 2011,http://www.nopsema.gov.au/assets/Corporate/Second-Triennial-Review-of-the-Operational-Effectiveness-of-the-National-Offshore-Petroleum-Safety-Authority-report..pdf Accessed 18/4/16

[17] UK HSE, *Planning to do business in the UK offshore oil and gas industry?,* 2011,http://www.hse.gov.uk/offshore/guidance/entrants.pdf p 1. Accessed 18/4/16

[18] UK HSE, *Enforcement Management Model (EMM),* 2013, http://www.hse.gov.uk/enforce/emm.pdf, Accessed 22/2/16

This gap, plus a number of other aggravating or mitigating factors, helps to define what action is appropriate in any one situation. Other processes include post facto reviews by first line managers of a sample of decision taking by their teams to identify learning and peer-review techniques.

CME members have long requested efforts be made to improve consistency in the application of the regulatory approach. For example, during interviews to support this submission, one member commented *'There are inconsistencies in standards at different operations … [within the same company]. It isn't obvious that the regulator is seeking to establish a consistent minimum level of performance.*

CME understands DMP convenes an annual inspector's forum with the objective of improving consistency. However, on the basis of publically available information it is not clear to CME if there is an explicit and ongoing focus on consistency within the Mines Safety Branch nor whether specific tools or processes to help to address this issue are available to inspectors.

Recommendation 3: CME recommends the Department of Mines and Petroleum should consider developing tools and processes explicitly aimed at reducing inconsistency in Mines Safety Branch regulatory decisions.

Measuring the Effectiveness of a Regulator

Measuring the effectiveness of the regulator is the first step to ensuring they are achieving their intended outcomes. However, measuring the effectiveness of a regulator is not an easy task. Some assume it is a simple function of looking at the health and safety statistics are they getting better or worse. Unfortunately, the relationship between a regulatory body and the performance of the industry regulated is not easy to determine.

One of the key issues is that performance data is dominated by higher frequency and relatively lower consequence events such as slips, trips and sprains etc. These are not trivial and are important to measure and prevent. However, low probability but high consequence events are very rare and are not represented in the most widely used metrics, including fatality rates (which are dominated by incidents involving one or two fatalities) or lost time injury frequency rates, (LTIFR)[19]. Similarly, occupational ill-health such as cancers associated with workplace exposures are difficult to measure due to a number of factors including often long latency periods and the so called "healthy worker effect." A low probability but high consequence event by definition is rare, but just because, for example a major underground fire has not occurred for many years, does not mean the hazard has gone away.

Mines Safety Branch Performance Indicators

Recognising these difficulties, it is common for safety regulators to focus on measuring regulatory outputs such as the number of inspections and audits carried out or the "Number of investigations conducted"[20]. This is a typical approach used by safety regulators including the Mines Safety Branch but does not necessarily represent best practice.

---

[19] For a discussion on this subject see Progress on Process Safety Indicators - Necessary but Not Sufficient? A discussion paper for the US Chemical Safety and Hazard Investigation Board, 2011, http://www.csb.gov/UserFiles/file/Progress%20on%20Process%20Safety%20Indicators%20(Wilkinson).pdf, Accessed 22/02/16.

[20] Government of Western Australia, *Resources Safety Achievements and Performance 2014 – 2015,* p 3 http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201415.pdf Accessed 20/4/16

A regulator has a great deal of discretion in what activities it carries out. The legislation places most duties on companies and individuals who carry out the mining and minerals processing. There are few duties on the regulator. This is entirely appropriate. However, this discretion as to how a regulator uses the resources available to it makes it incumbent on the regulator to effectively plan how it is going to use these resources to effectively and efficiently meet stated objectives.

In addition to reporting the number of inspections/audits and complaints and incident reports received as is currently done on the DMP's annual Achievements and Performance Reports, CME considers a range of more useful measures could and should be developed. For example, once the detailed regulatory strategy is developed as recommended above, a more meaningful performance measure would be the number of inspections/audits completed compared with the number and specific identified focused areas planned for that period.

In addition, safety regulators can usefully supplement quantitative output measures such as number of notices issued by providing qualitative information on what they find from their regulatory activities such as technical assessments of hazard management plans, inspections, audits and investigations. This could include measuring the extent to which critical controls for certain hazards (or risks) sampled are documented and monitored.

For example, if the regulator has identified the need for more consistent development of management plans for a particular hazard, undertakes an education program aimed at addressing this and then incorporates a review of these management plans into planned site visits, a useful measure against the effectiveness of this program would be the actual adoption of these plans across the industry. That is, where possible, it would be useful to measure the uptake in response to a focus on a particular initiative or focus area.

Done consistently across the industry this would provide much more useful information not just about how the Mines Safety Branch is using its resources but what they find from their inspections and audits.

Recommendation 4: CME recommends the Mines Safety Branch consider supplementing quantitative measures of regulatory activity with measures of the quality of regulatory and educational activities to provide more meaningful indicators of their effectiveness.

A further type of measure common to any organisation engaged in a process of improvement and development is associated with the degree and rate of improvement. The agenda for change and improvement set out in RADARS does not appear to have any performance measures associated with it which would facilitate monitoring the rate or quality of the change and development of the RADARS program. For example, one measure of improvement would track the developmental activities of the Mines Safety Branch such as building competency in the Mines Safety Branch. At present this is reported on in the Achievements and Performance Report simply by giving the numbers of people who have attended training events and the number of certificates awarded.

If measures of progress with the implementation of RADARS do exist they are not made public. This type of measurement is usually regarded as best practice in public policy implementation and has a variety of names such as Investment Management. Further details are given in Appendix 2.

Recommendation 5: CME recommends the Mines Safety Branch develop indicators which measure progress with regulatory improvements

CME notes recently, in the case of serious incident investigations, DMP have commenced publishing more detailed information around causal factors and recommended improvement actions. Industry has welcomed this approach and acknowledges the sharing of lessons

learnt is critical to preventing future incidents and supporting continuous improvement efforts.

However, little is published by the Mines Safety Branch on the findings obtained from carrying out their other activities such as inspections[21], audits and reviewing hazard management plans.

Industry views good practice regulation involves providing feedback at an industry level on both the positive and negative findings from carrying out these regulatory activities. Inspectors provide feedback at an individual company or site level mainly in the form of negative feedback such as on those aspects of health and safety the company or site is not doing well as they could be. In addition to important feedback on where improvement is required, CME considers the Mines Safety Branch should also provide feedback on those aspects of safety and health management which are being done well. Positive feedback is recognised as an important motivator and should be included in the regulatory toolset along with compliance related activities and directives.

Feedback from the Mines Safety Branch's extensive inspection and audit program (both positive and negative) is also important to be shared at an industry level. What trends are being seen by the Mines Safety Branch? What does the industry generally do well or less well? Answers to these questions provide an important input to strategy development for all parties.

Recommendation 6: CME recommends the Mines Safety Branch provide feedback on positive and negative findings from inspections, audits and investigations. Feedback on what can be learnt from incidents and near misses and examples of good practice should be shared in a systematic and transparent way to promote industry-wide learnings.

Promoting and Securing Compliance by Duty-Holders through Leadership, Guidance and Education

Leadership, guidance and education are useful tools in supporting compliance. These are proactive pieces of work that a regulator can undertake to encourage best practice in the goal setting regime.

CME considers good practice regulators use a targeted approach to leadership, guidance and education. That is, these activities are used to support the goals of the broader regulatory strategy. For example, if a regulator notices there is a common inefficiency in the industry, they should provide leadership to address that deficiency through a balance of inspections and educational activities. Regulators should provide a mixture of tailored and targeted technical guidance to site level as well as provide guidance on topics relevant to senior managers. But as resources are always limited, the activities should be supported and directed by an overall strategy.

The Mines Safety Branch provides guidance and promotes safety through a number of channels including an extensive amount of online resources on their website including guidance notes, check lists, 'toolbox' presentations and links to external best practice resources.

The Mines Safety Branch also holds a range of meeting and events targeting specific safety and health issues. For example the focus of the 2014 Roadshow was on 'improving hazard

[21] See for example, the NOPSEMA *Annual Offshore Performance Report*, 2014, http://www.nopsema.gov.au/assets/Publications/Annual-offshore-performance-report-2014-15-LR.pdf accessed 26/04/16 which gives details of the outcomes of "Topic Inspections."

awareness, adopting appropriate risk management strategies, and supporting effective leadership and positive cultural change.'[22]

In 2015 the Mines Safety Branch also reconvened a Registered Managers Forum that was developed as a way to work more closely with registered managers and drive safer outcomes on Western Australian mining operations.

The Mines Safety Branch publishes the Resources Safety Matters magazine (previously *MineSafe*) quarterly. This publications provides access to information including key safety statistics, influencing Worksafe culture, updates on legislative and legal news, safety alters and guidance, industry activities, and enforcement and prosecution actions.

The CME strongly supports the Mines Safety Branch's role in the above areas and takes an active role in working with the DMP on the review and development of guidance and other material to support industry's access to information on best practice and to facilitate continuous improvement efforts.

In this regard however, CME notes there is room for further improvement. While the DMP's annual Achievements and Performance Reports lists the key events held throughout the year, detail is not provided around how these focus areas were selected and how this process fits within the broader regulatory strategy and priorities of the Mines Safety Branch.

Further detail on how this fits within a risk based regulatory approach should be supported by linking these focus areas back to relevant information related to near miss, serious injury data and the learnings from site visits such as findings from audits and inspections.

It is important these activities can be linked back the regulator strategy in order to enable assessment of their effectiveness and inform ongoing performance measurement against the strategy.

Recommendation 7: CME supports the Mines Safety Branch in undertaking education and awareness raising activities and providing guidance and other supporting material. However, CME recommends these activities be guided by a clear regulatory strategy and details provided to articulate how the development of this material and focus of events fits with a risk based regulatory approach.

Inspectorial Skills and Knowledge

Effective safety regulators require personnel with a wide range of capabilities and skills. From a mines safety perspective, these include technical skills such as:

- Industry knowledge (of mining, mineral processing etc.) without which the regulator will not be credible in the eyes of those who work in the industry.
- Relevant technical and engineering knowledge.
- Knowledge of hazards from slips, trips, sprains and strains, fatal accidents, catastrophic hazards particular to mining and mineral processing and occupational health risks.
- Safety regulatory knowledge including accident causation theory, safety management systems, human factors, knowledge of the relevant law, inspection, auditing and incident investigation skills.

No one regulator needs all these capabilities. However, all inspectors need to engage at some time with front line workers and their representatives, supervisors, managers and senior managers. As a result, all inspectors need to have good interpersonal skills

[22] Government of Western Australia, *Resources Safety Achievements and Performance 2014 – 2015,* p 9, http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201415.pdf Accessed 20/4/16

particularly if (as we have suggested they should) they are expected to engage with senior managers.

The CME members view is that on the whole inspectors have a strong knowledge of mining hazards from slips, trips, sprains and strains, fatal accidents, catastrophic hazards and industry knowledge of operations across the mining lifecycle. Furthermore, we have heard repeatedly of the good personal relations that exist at a working level. However, we have also received feedback from our members that where inspectors do not have strong interpersonal skills they tend to resort to a "directive" style of engagement which industry does not consider to be beneficial or necessary.

CME notes the Mines Safety Branch reports on the number of inspectors who have complete training, but do not identify training target or describe the detail around what type of training is required other than noted the *'Certificate IV in Government (Investigation) course that all inspectors are required to attend,…*[and] *a Diploma course is available to a select group of inspectors who will lead investigations in their sections'*[23] .

Recommendation 8: CME recommends the Mines Safety Branch support the development and implementation of the regulatory strategy, as recommended above, through the inclusion of the priorities and targets for professional development, including target competencies and skill sets for inspectors.

The Mines Safety Inspection Levy

In this section of our Submission we review the design and implementation of the *Mines Safety and Inspection Levy Regulations (2010)* ('the levy regulations'). CME considers changes are needed to the design of the Mines Safety Levy (the Levy) to improve its efficiency. Transparency around Levy revenue and expenditure is also required to support the ongoing use of cost recovery for this important regulatory function.

CME considers improvements to the design of the Levy have the potential to save time and reduce regulatory and administrative burden for both government and industry without impacting on the funding required to support the operation of the Mines Safety Branch.

To provide some context for our views we first describe some principles for best practice in cost recovery mechanisms in relation to regulatory activities. We then compare the design and workings of the Levy with this recognised good practice. We also provide some specific examples of how the Levy affects our members and make some recommendations to improve the situation.

What does best practice look like?

Governments have developed guidance on cost recovery documents including; *the Department of Finance, Australian Government Charging Framework* (2015)[24], *the Australian National Audit Office (ANAO) administering regulation guidelines*[25] and in Western

---

[23] Government of Western Australia, *Resources Safety Achievements and Performance 2014 – 2015,* p 8, http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201415.pdf Accessed 20/4/16

[24] Australian Government Department of Finance, *Australian Government Cost Recovery Guidelines – Resource Management Guide No. 304*, 2014, p.10, http://www.finance.gov.au/sites/default/files/australian-government-cost-recovery-guidelines.pdf, accessed 20/4/16

[25] Australian National Audit Office, *Administering Regulation – Better Practice Guide*, 2014, p.40, https://www.anao.gov.au/sites/g/files/net616/f/2014_ANAO%20-%20BPG%20Administering%20Regulation.pdf accessed 19/4/16

Australia *Costing and Pricing Government Services* (2015)[26]. All these documents support the design, implementation and review of best practice cost recovery mechanisms through a set of common principles. We have summarised the key principles as:

- **Transparency**. Ensuring key information is available, about the activity, authority to charge, charging rates, and the basis of the charges.
- **Efficiency of the regulatory activities**. Delivering activities at least cost, while achieving the policy objectives and meeting the legislative requirements of Government. Cost recovery arrangements should be cost-effective and not impose excessive compliance costs on regulated entities.
- **Performance and stakeholder engagement**. This relates to effectiveness, risk mitigation, sustainability and responsiveness. Stakeholder Engagement is a key element of managing and achieving performance. Entities must regularly review and evaluate charges in consultation with stakeholders to assess their impact and whether they are contributing to government outcomes.
- **Simplicity**. Where by charges should be straightforward, practical, easy to understand and collect
- **Policy consistency**. Charges must be consistent with Government priorities and policies, including entity purpose and outcomes

Overview of the Mines Safety Branch Levy

In 2009, DMP commenced establishment of the RADARS program identified the need for cost recovery to further support the delivery of safety and health regulatory services across the department. As a result, the Mines Safety Branch developed cost recovery arrangements administered through the Levy regulations.

The Levy is applied to all mining and exploration operations that operate over a 'qualifying time' of 5,000 hours per quarter. Once an operation operates for greater than 5,000 hours they are required to pay the Levy. The Levy is calculated by multiplying the hours worked by the Levy rate. The current levy rate is $0.14 per hour operated. This means if the employees at an operation worked for a total of 20,000 hours they would be required to pay 20,000 times $0.14, or $2,800 quarterly. The levy rate has varied over the past six years, as is shown in figure 1.

[26]Government of Western Australia Department of Treasury, *Costing and Pricing Government Services*, 2015, https://www.treasury.wa.gov.au/uploadedFiles/_Treasury/Publications/costing_and_pricing_guidelines_june2015.pdf, accessed 20/4/16

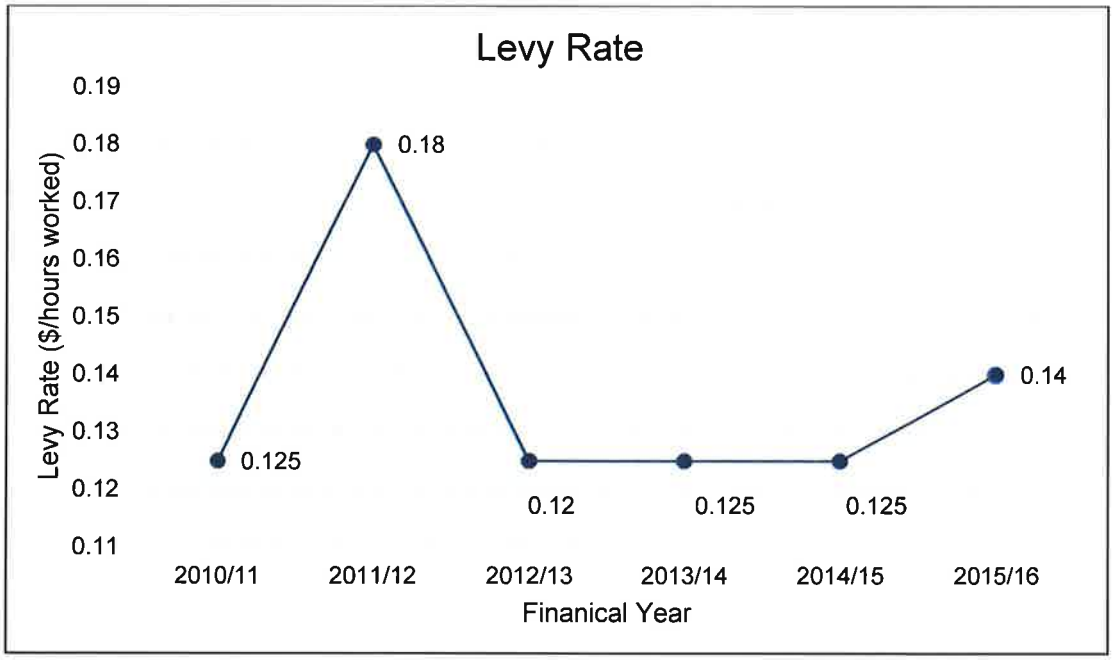


Figure 1: Mines Safety Levy rate from 2010 - 2016

Currently, operators are required to report the number of hours worked to the Mines Safety Branch. To ensure reporting compliance, the Mines Safety Branch undertakes audits through the powers in the Levy regulations.

Implementation of the Levy

CME welcomes recent discussions with DMP regarding streamlining of the levy payment calculation process including implementation of an acceptable level of variance around the precise number of hours reported.

However, these changes have not yet been formalised through regulatory amendments and CME understands companies are continuing to experience issues as part of levy compliance audits.

It is hoped, once implemented these changes will address ongoing industry concerns the administrative costs of complying with the levy regulations which in some cases exceeds the cost of the levy itself.

The resources required for the Levy audit process are also significant. CME members have spent significant resources in responding to auditor requests for information. The CME notes DMP have published guidance to facilitate understanding of auditor expectations and compliance with the Levy regulations[27]. However, CME considers further improvement is request to address ongoing industry concerns.

DMP also report a large amount of administrative tasks, for example in 2011/12, DMP conducted 57 audits that accounted for over 250,000 hours of levy hours worked by industry. Of these, only four operations (or 7%) had correctly recorded their hours. We understand auditors had attributed these compliance issues to errors such as mis-reporting of hours via swipe card access (for example swipe card system not identifying the name of workers) and levy hour reports not being checked off by supervisors.

[27] Government of Western Australia Department of Mines and Petroleum Resources Safety, *Frequently Asked Questions On Mines Safety Levy Audit*, 2014, p.1, http://www.dmp.wa.gov.au/Documents/Safety/MSH_IS_FAQs_MinesSafetyLevyAudit.pdf.pdf, accessed 22/4/16

However, CME suggests that the root cause of this non-compliance is the innate complexity of the scheme and the level of prescription within the Levy regulations, particular around the reporting of FTE hours and the level of precision required in accounting for these.

It is also disappointing the mock-up chapter Work Health and Safety (Resources) (Levies and Fees) Regulations 2016 recently released to the Safety Ministerial Advisory Panel (MAP) members has not proposed any material change to the current mines safety levy calculation methodology or reporting requirements.

The setting of fees and levies is a critical component of the cost benefit analysis which needs to support the future implementation of the WHS legislation in Western Australia.

Further, industry anticipates a shift from prescriptive to risk based legislation will also include a rationalisation of inspectorate resources commensurate with level of support required to implement this approach and to minimise as far as possible any cost impacts associated with the transition to a new risk based regulatory framework.

The CME suggest there are simpler cost recovery models which could be applied which would still raise the necessary funds but with significantly reduced administration costs for both Government and CME members. For example, the cost recovery mechanism used by the National Offshore Petroleum Safety and Environment Management Authority (NOPSEMA) has a number of levy types that each have a discrete value.

Under the NOSEMA model the levy type is dependent on the type of facility, size of operation and regulatory service.[28]. This 'lump sum' approach means NOPSEMA do not have additional auditing requirements, as compared with the Levy regulations.

No doubt there are other mechanisms which could be designed, in consultation with industry, to ensure the cost recover mechanism is easy to understand, efficient and supports proactive compliance.

CME considers the Levy is inefficient for both government and the industry and must be reviewed. We are willing to engage with the government to ensure a revised Levy is implemented which provides the funding for an effective regulator but which is simpler to implement and which thereby reduces the costs and administrative burden and hence costs on both government and industry.

Recommendation 9: CME recommends the Mines Safety Branch undertake a review of the design of the Levy in consultation with stakeholders with a view to implemented a more efficient cost recovery model.

Levy Rate, Revenue and Expenditure

CME appreciates having been involved in initial discussions with the Ministerial Advisory Panel (MAP) and the Governance and Reporting Working Group as part of the implementation of the levy in 2010. However, the ongoing lack of transparency and accountability regarding justifications of the changes to the levy rate and lack of detail provided regarding the expenditure of levy funds and effectiveness of cost recovered activities and services warrants further attention and consideration.

In 2010-2011 DMP released a Supplementary Information Report to provide context to the annual Performance and Achievements Report. Agreement was reached at the time to hold an annual tripartite planning workshop for input into non-core activities of RSD.

[28] NOPSEMA, *Cost Recovery Implementation Statement*, 2015, p 13 http://www.nopsema.gov.au/assets/Corporate/A455853.pdf, Accessed 22/4/16

This workshop has not occurred and industry considers it must be held before any further fee changes are considered.

The 12% levy increase in 2015/16 to $0.14 per hour worked caused great concern to industry, in particular in light of the economic situation facing much of the mining and minerals processing sector. In addition, when the levy increase was announced there was no transparency of why the increase was necessary. While CME assumes an overall decline in total hours worked across the industry may be reflected in the levy increase, there is a need for DMP to consider efficiencies in service delivery commensurate with the level of activity within the industry and demand for these services. However, it is unclear if the demand for the regulatory services has increased.

The CME raised these concerns with DMP, including the lack of transparency around:

- the increase in fees
- the health and safety outcomes that are being achieved
- the increase of services
- any future planned activities

CME then requested information relating to the increased costs of regulatory services. In particular, CME has noted in the past five years there have been large increases in[29]:

Expenses	2010-11 July-June ACTUALS $'000s	2014-15 July-June ACTUALS $'000s	Total increase over five years	Percentage increase over five years
salaries and superannuation	11,473	15,702	4,229	37%
training and development	370	319	-51	-14%
supplies and services	4,104	4,653	549	13%
office accommodation	551	1,749	1,198	217%
depreciation	133	98	-35	-26%
other expenses	9	21	12	133%
corporate costs	3,583	6,677	3,094	86%

CME has particular concerns around the increases in other expenses (133%) and corporate costs (86%). In preparing this submission, CME conducted some analysis on the DMP data available and agrees many of the costs seem appropriate. However, the expenditure associated with 'corporate costs' appears to be high and increasing. CME asked DMP to provide a detailed reasoning and breakdown of these expenses and a description of what is included in 'other expenses' and 'corporate costs'. However, DMP's response did not meet industry expectations around transparency in the level of detail provided to understand and scrutinise these costs. DMP referred to the Annual Achievements and Performance Report which also does not provide the requested clarification.

[29] Government of Western Australia, *Resources Safety Achievements and Performance 2014 – 2015,* p 2,http://www.dmp.wa.gov.au/Documents/Safety/RSD_R_AchievementsAndPerformance201415.pdf Accessed 4/5/16

CME is concerned about the increasing corporate costs of DMP and the lack of transparency around this. Current economic conditions have made it essential for companies to review the efficiency of their own corporate processes and costs and CME considers DMP should also be identifying areas to increase efficiency.

DMP have previously explained the main reasons for the most recent levy increase included:

- Increasing salaries and increasing number of mining inspectors as well as to retain skilled and experienced staff;
- Office relocation costs, from Cannington to East Perth;
- Cost of the Safety Regulatory Systems (SRS); and
- Increasing legal resources to manage enforcements and prosecutions.

CME supports the Mines Safety Branch in ensuring recruitment and maintenance of a competent regulator. However, it is unclear what the cost of delivering these activities and services is. For example, one CME member asked *'how much has been spent of the levy payments to develop the SRS?'*

While it is recognised there are core regulatory functions where influence by outside bodies would be inappropriate, there should be a formal and transparent process to review expenditure and delivery of cost recovered services. This should include review of expenditure relating to development and delivery of educational and promotional material, events and other non-core activities and be designed to ensure the DMP Resources Safety Division is efficiently and effectively delivering on strategic priorities.

CME has never sought to input into the allocation of resources for core regulatory compliance functions and does not seek to do so going forward. However, provisions in the Occupational Safety and Health Act 1984 clearly enable the Mining Industry Advisory Committee (MIAC) to provide advice on OHS related matters relevant to the mining industry including education, publications and training.

In the context of the current economic environment it is critical both the levy rate and activities of the Department are reviewed regularly to minimise cost impost on industry and ensure cost recovered services and proactive activities are delivered as efficiently as possible and are delivering the intended benefits.

The Levy, as presently designed and implemented, does not meet best practice principles for cost recovery mechanisms. For example, transparency could be significantly improved by publishing more information regarding the breakdown of costs and expenditure, and relating these costs back to services delivered. By providing this breakdown of information, the regulator will build trust with CME members and industry in the regulator's cost recover model and provide confidence necessary regulatory services are being delivered efficiently.

Recommendation 10: CME recommends implementation of a formal process for reviewing mine safety Levy expenditure and referral to MIAC for advice on the effectiveness and prioritisation of non-core activities such as education, events, publications and training.

CME considers the current lack of transparency falls short of meeting industry expectations, and as a result it is unclear to CME and its members whether DMP are providing a value for money service.

Recommendation 11: CME recommends the Mines Safety Branch publish a more detailed breakdown of Levy revenue and expenditure to increase transparency and to provide clarity around the need for adjustments in the levy rate.

Conclusion

High standards of health and safety are essential for those who work in our mines, their families, the companies and their contractors as well as for government. The CME is committed to high standards of health and safety and recognises the importance of the Mines Safety Branch work in a sustainable mining and minerals processing industry. This includes an effective and appropriately funded inspectorate.

The history of the mining and minerals processing industry is one of constant change including progressive improvement in standards of health and safety. We expect this change will continue across industry and also within the Mines Safety Branch. The introduction of autonomous vehicles and a greater understanding of psycho-social hazards are but two examples of change on which the industry and the Mines Safety Branch are working.

Although the terms of reference of the Review are focussed on the Mines Safety Branch, the CME is keenly aware that the recommendations for change and improvement, if implemented, will have a broader impact on supporting improvement in the health and safety performance across the Western Australian resources sector.

First and foremost, in our Submission are those recommendations that will improve the effectiveness of the Mines Safety Branch. In particular, some recommendations will support the move towards a more risk based legislative system and result in a more professional approach by inspectors to support how our members manage and control health and safety risks. This will benefit all parties. The improvements include developing a clear regulatory strategy; a more risk control focus to inspections and audits and a more strategic engagement with senior managers.

Secondly, we have identified a number of problems with the design and implementation of the Levy. These have been evident for a number of years. In particular, we believe the design of the levy can be improved to continue to recover the necessary funds but in a more efficient way for both government and CME members. We look forward to the opportunity to work with government on this.

Over the last 20 years substantial progress has been made in health and safety in the mines and mineral processing industries. However, the CME believes further improvements are needed and possible. The Mines Safety Branch has an important part to play in making the change, and we expect the improvements we have identified will support and stimulate further improvements in our members and across industry.

If you have any further queries regarding the above matters, please contact Adrienne LaBombard, Manager - Workplace Health and Safety, on (08) 9220 8520 or a.labombard@cmewa.com

Authorised by	**Position**	**Date**	**Signed**
Reg Howard-Smith	Chief Executive	10.5.2016	
Document reference	K:\Occupational Safety & Health\Projects & Issues\Cost Recovery\Mine Safety Levy\Third Party Review\160429-OHS-CMEWA Submission-Independent Review-Mines Safety Branch-Final-v1.0.docx		

Appendix 1: Incident Causation – How are incidents caused? [30]

The best known incident causation model is the so called 'Swiss cheese model' popularised by James Reason[31], which forms the basis for a number of proprietary incident investigation tools widely used in industry including mining.

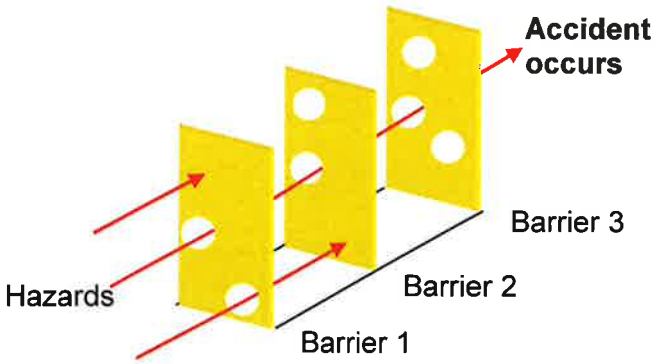


Figure A1. Swiss Cheese Model of Incident Causation

This model assumes that discrete barriers (or risk controls) to prevent incidents from occurring can be identified. These controls are represented graphically as slices of Swiss cheese, as indicated above. The model assumes all risk controls are imperfect and have 'holes' or weaknesses, which represent an opportunity for an incident to occur. Risk controls include engineering controls (roof bolting), systems or processes (management of change procedures), controls intended to ensure individuals can carry out assigned duties safely, training and competence assurance schemes and organisational level controls such as the provision of certain structures to ensure appropriate governance over safety. In practice, a number of different types of barriers are usually needed.

There are some important assumptions which lead from this type of model. These are:

- Multiple-causation – Incidents are seen as not just arising from a single cause, but from a combination of conditions. These may be associated with individual behaviour, characteristics of the task or working environment, or wider organisational issues.
- Immediate and underlying cause – While most incident investigations typically identify the immediate triggers or causes of an incident such as the failure to follow a procedure or the use of the wrong equipment, many investigations fail to address the underlying causes of these conditions. These causes are typically characterised as those organisational and management policies (that is the system factors) that create the preconditions for incidents.
- Controls are imperfect – Few risk controls are perfect. The Swiss cheese model illustrates why it is possible to have imperfect controls but no incident. It is only when the holes 'line up' that an incident occurs

[30] Noetic Solutions Pty Ltd, *Wilkinson Fatality Review*, 2014, http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/about-us/mine-safety-initiatives/wilkinson-fatality-review accessed 22/2/16

[31] James Reason, 1997, "Managing the Risks of Organizational Accidents", Ashgate Publishing.

Appendix 2: Explanation of Investment Management in Relation to RADARS

Investment management allows an organisation to actively manage the realisation of benefits from an investment into any given initiative, project or program, such as RADARS. These should be viewed as an investment as they come at a cost – money, resources, time and/or opportunity. The key is that the organisation making this investment ensures they derive a 'return on its investment' that is beneficial to the organisation in the case of RADARS other stakeholders too.

For any given investment, Investment Management provides a robust and rigorous, but simple methodology that defines the business problem, identifies the desired benefits and outlines the proposed solutions and associated business changes to deliver these benefits. For each benefit, key performance indicators (KPI) are developed and targets identified against benchmarks. Actual performance is then tracked against these targets providing the basis for active management thus ensuring benefits are realised.

Investment Management should not to be confused with project management. Project management is a complementary activity to Investment Management that provides a disciplined approach to deliver an initiative, project or program against a budget, a schedule, a scope and to a stipulated level of quality. Investment Management is more strategic in its scope ensuring that other changes required for benefits realisation are identified and implemented. It also provides a measurement framework to ensure benefits are actually realised from an investment. Investment Management often continues well beyond the completion of the initiative, project or program as the realisation of some benefits may take considerable time due to the required business changes.

7 June 2016

Mr Richard Thomas
Partner - Risk Advisory
Deloitte Touche Tohmatsu
Tower 2 Brookfield Place
123 St Georges Terrace
GPO Box A46
PERTH WA 6837

Email: richathomas@deloitte.com.au

Dear Richard

INDEPENDMENT REVIEW MINES SAFETY BRANCH

The Chamber of Minerals and Energy of Western Australia (CME) appreciates the opportunity to provide additional information in relation to our recent submission to the Independent Review of the Department of Mines and Petroleum (DMP) Mines Safety Branch being undertaken by Deloitte Touche Tohmatsu.

Further information in response the queries raised in your letter of 31 May are included below.

1. **Further details in relation to some inspections focusing on low-level hazards as discussed on page 8.**

   When we surveyed members as part of the development of our submission more than 60% of respondents answered "Yes" to the question "Do you feel inspections and audits sometimes cover trivial matters".

   CME members have noted that inspections often lack a specific focus, and that therefore at times inspectors can become distracted by relatively low level hazards. Industry is concerned this lack of focus can come at the detriment of a thorough examination of principal or critical hazard areas being undertaken.

   One example includes following an audit of a specific hazard area in which the company is found to be highly compliant, the inspector's feedback focused on minor or unrelated issues rather than providing positive/constructive feedback in relation to the management of the hazard which was the subject of the review. Industry considers this to be a missed opportunity to promote proactive compliance and engender a positive collaborative relationship with the inspectorate.

   Further, in some cases formal improvement notices are issued in relation to relatively minor non compliances. While industry recognises these matters require rectification, issuing a formal notice effectively escalates these as high priority and imposes a timeline on these actions. This can conflict and potentially detract from the risk based prioritisation of improvement activities being implemented across the operation.

   Some specific examples of low level hazards where CME members have been issued improvement notices or other instructions on include:

- Fire extinguishers with dust or product build up observed on the cover bag.
- A single out of date bottle of saline solution in a first aid kit.
- Incorrect signage on toilets
- Missing delineator posts along an access road
- Empty soft drink cans in a designated area

2. Further information on inconsistencies in the decisions made by the DMP as noted on page 11.

As noted in our submission the resource industry has long advocated efforts be made to improve consistency in the application of DMP's regulatory approach.

40% of respondents to the survey we conducted to inform the present submission indicated they 'disagreed' or 'strongly disagreed' with the statement: "Mines safety inspectors are consistent in their inspection techniques, methods and advice each time they visit your site/sites." By comparison 0% of respondents 'strongly agreed' with this statement and 30% 'agreed'.

During interviews to support this submission, one member commented *'There are inconsistencies in standards at different operations … [within the same company]. It isn't obvious that the regulator is seeking to establish a consistent minimum level of performance.*

In the past CME has engaged with DMP to address industry concerns with inconsistencies in inspectorate approach where impacts have been identified across the industry. One example relates to the registered manager (RM) statutory position and regulatory requirements relating to the trigger for an alternate or deputy to be appointed to cover 'commute schedules' and absences from site (*Mines Safety Inspection Act 1994*, Sections 33 to 38A). Feedback provided to CME indicated a number of different interpretations were being applied in relation to the period of time and geographic distance where a RM could be 'in control' of a mine from a location 'in relation to the mine'.

In this instance, CME appreciated DMP's willingness to engage with industry to address the concerns and industry noted an improvement in consistency in the inspectorate's approach to this issue further to these discussions.

However, not every example of inconsistency is likely to be raised with CME or constitute an issue requiring an industry-wide advocacy approach. As recommended in our submission, CME considers there is a need for an explicit and ongoing focus on consistency within the Mines Safety Branch including the development of specific tools or processes to assist inspectors and address these issues in a transparent way going forward.

3. Concerns relating to 'soft skills' of some inspectors and whether these occurrences have been reported to the DMP, and if so any action taken.

CME is not aware of specific cases of these concerns being raised and then subsequently being addressed by DMP.

DMP have in the past been open to receiving this feedback, however, has generally requested specific examples and inspectors be named.

CME understand our member companies generally avoid naming specific inspectors and identifying examples which could be traced back to their sites due to concerns this could impact their relationship with the inspector and local or regional inspectorate.

Companies place a high level of importance on maintaining positive working relationships with the inspectorate.

It may be that lack of transparency around the process for lodging these types of complaints including how individual and site confidentiality can be maintained may be limiting the ability to address specific issues regarding inspectorate competency and/or approach.

Regardless of specific examples being provided, member feedback suggests there is a need for improvement in this area.

CME considers there remains a need for inclusion of the priorities and targets for professional development, including target competencies and skill sets for inspectors to be included in the mines safety branch regulator strategy.

4. The CME preferred cost-recovery model.

CME has not at this stage developed a preferred cost recover model. Our strong preference would be for this to be developed in consultation with DMP and the resources sector to ensure the model is efficient and effective in line with the principles for best practice costs recovery as outlined on pages 15-16 of our submission.

A review of the current cost recovery model must also take into account the proposed consolidation of mining, petroleum and major hazard facility safety under a single legislative instrument. Each of these sectors is currently subject to cost recovery however there are significant differences in the way this is calculated and collected.

Should these reforms proceed, it will be an important opportunity to address unnecessary prescription in the way the current levy fees and payments for mines, petroleum and MHF safety are calculated and audited for compliance with relevant regulations.

The setting of fees and levies is a critical component of the cost benefit analysis which needs to support the future implementation of the Work Health and Safety legislation in Western Australia. Further, CME recommends any savings achieved by the regulator as a result of consolidation be passed to industry by a reduction in levies.

5. Further explanation as to what is mean by 'non-core activity' as mentioned on page 20.

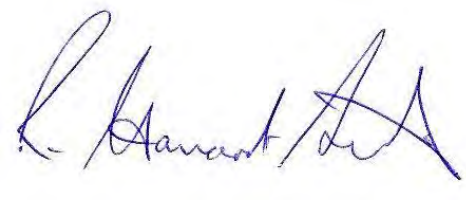
Non-core activities are considered to be non-regulatory activities such as events, publications and other initiatives which are not compliance focused. Examples could include educational or promotional activities intended to promote continuous improvement and raise awareness of issues such as the Resources Safety Matters magazine, produced quarterly in hard and soft copy and the Hazard Awareness video series.

CME is not suggesting these 'non-core' activities are unimportant and strongly supports DMP taking a collaborative and proactive approach to engaging with industry on these issues. However, there is currently no transparency around the cost benefit analysis or effectiveness measure for these activities.

As noted in our submission, CME recommends implementation of a formal process for reviewing mine safety Levy expenditure and referral to the Mining Industry Advisory Committee for advice on the effectiveness and prioritisation of non-core activities such as education, events, publications and training.

Thank you again for the opportunity to provide industry input into the currently review. Should you have any further queries in relation to our submission please do not hesitate to contact Adrienne LaBombard on (08) 9220 8520 or at a.labombard@cmewa.com .

Yours sincerely



Reg Howard-Smith
Chief Executive

cc. Ben Fountain, Alex Atkins

Appendix E – AMEC submission

Submission to:

Deloitte Touche Tohmatsu

Review of the Department of Mines and Petroleum Resources Safety Division

ASSOCIATION OF MINING AND EXPLORATION COMPANIES

May 2016

Contents

Prepared by

Association of Mining and Exploration Companies Inc (AMEC)

Head Office
6 Ord Street, West Perth WA 6005 (Offices located in Perth, Brisbane and Sydney)
Please address all correspondence to: PO Box 948 West Perth WA 6872
P: 1300 738 184 E: info@amec.org.au www.amec.org.au

1. INTRODUCTION

Thank you for the opportunity to comment on the *Review of the Department of Mines and Petroleum, Resources Safety Division – Mines Safety Branch Resourcing and Funding*.

As the peak national industry body of hundreds of mining and mineral exploration companies, the Association of Mining and Exploration Companies (AMEC) has a direct interest in mine safety issues and is a key stakeholder in the outcomes from this Review.

As you are aware, AMEC has a Safety Committee comprising a broad range of experts from mining, exploration, drilling, consulting and legal companies, which provides strategic advice on relevant safety issues affecting, or likely to affect the industry.

Further to your meeting with some members of the Safety Committee and AMEC Executive on 24 March 2016, the following comments are provided.

In doing so, we note that the Objective and Terms of Reference (ToR) are focussed on resourcing, funding, and whether the Mines Safety Branch is structurally organised for effective and efficient regulation of occupational health in the Western Australian mining sector.

In view of the precise nature of the Scope and Criteria within the ToR, AMEC is unable to provide specific comments on the major proportion of those issues. They will require further research and detailed analysis by the Consultant undertaking the Review.

This submission is therefore based on high level and strategic concerns around the cost recovery model, transparency, accountability, efficiency, flexibility, communication, skill sets, red tape and benchmarking.

2. STATE OF THE INDUSTRY IN WESTERN AUSTRALIA

The Western Australian mining and mineral exploration industry has continued to experience considerable financial and economic pressures, falling commodity prices, massive unemployment, reduced international competitiveness and capital investment going to offshore and competing projects.

This has continued to be caused by:

- Lower discovery rates,
- High and increasing production and operating costs,
- Lower grades and higher strip ratio waste removal,
- Deeper deposits requiring increased pre-production expenditure and the subsequent higher mining and extraction costs, and
- Tighter margins.

Many projects are finely balanced with low margins and limited cash flow with the result that cost saving and efficiency measures are being applied on a daily basis by emerging miners in order to keep their operations viable.

A number of these cost pressures are beyond the control of companies as they are compulsory expenses applied by Government agencies and utilities, such as with corporate taxation, power, water, stamp duty, tenement rentals, shire council rates, fees and charges, levies, superannuation, regulation and compliance costs.

Significant costs are also incurred through other payments such as third party royalties to native title groups.

These costs can only be sustainable in an environment of high commodity prices. All mining and mineral exploration companies have therefore had no alternative but to find internal savings to meet these compulsory payments. This has been accomplished through projects being closed, put on care and maintenance or deferred; reduced exploration; increased production efficiencies; operational savings; or through job losses.

3. SPECIFIC COMMENTS FOR THE REVIEW

Has RADARS been successful?

The Department of Mines and Petroleum established the Reform and Development at Resources Safety (RADARS) program in response to reviews and inquiries following a series of mining incidents and fatalities.

The DMP website indicates that the RADARS strategy consists of a number of projects to improve capacity, competency and legislation for the safety legislation administered by the Department.

It is unclear to AMEC whether RADARS has been successfully implemented or not, as there do not appear to be any key performance indicators on which such measurement can occur.

Some questions from industry still remain unanswered:

- Have we seen a measurable improvement in safety outcomes following the implementation of the RADARS strategy?
- What are the benefits of the current model?

AMEC is opposed to the cost recovery model

AMEC is strongly opposed to any cost recovery regime to fund ‘core’ Government statutory based activities or generate additional income to support a budget shortfall, including any costs associated with the Resources Safety Division (RSD).

Cost recovery should only be considered as a last resort after all other alternatives have been fully assessed (such as through increased agency efficiency, removal of duplication, organisational restructure, delegation of responsibilities and improved industry guidance material). We are not satisfied that has occurred to date.

AMEC was not consulted, or afforded the opportunity to provide any input to the original Department of Mines and Petroleum Business Case (dated 4 August 2009) before it was approved by Cabinet. This was a completely unsatisfactory way in which to introduce a major business input cost on industry.

It would appear that no consideration or recognition was given to the significant revenue streams ($billions) that were already being generated from the mining and mineral exploration sector (through royalty payments, tenement rentals, fees and charges).

Nevertheless, in good faith, AMEC agreed to participate on various Departmental Working Groups which were established in an attempt to ensure a smooth transition to the Mines Safety Levy.

Completely remove the Mines Safety levy

AMEC does not support the mines safety levy for what is a statutory function and strongly recommends that it should be completely removed, and funded through the Consolidated Account.

Lack of transparency and accountability

The annual Mines Safety Levy has fluctuated from 0.125 per hour worked in 2010/11, to a high of 0.18 in 2011/12, back down to 0.125 in 2013/14 and 2014/15.

In July 2015, AMEC was advised that the rate for the 2015/16 year would be set at 0.14, representing an increase of 12% on the previous year.

Despite being involved in the DMP Governance and Reporting Working Group in the transition to the levy model, AMEC considers that there has been a general lack of accountability and transparency on:

- the rate setting process, and
- the nature and range of expenses on which the levy is used.

During the Working Group process AMEC attempted to obtain greater transparency and accountability on these issues, and met with general opposition from the Department on the basis that all details would be included in the Annual Report and the Special Purpose Trust Account established to hold the levy funds. That has not eventuated to AMEC`s satisfaction.

The Mines Safety Division should be fully funded from the Consolidated Account and not an industry based levy. And failing that the Division should be subject to significant efficiency savings and the levy reduced accordingly.

In December 2015, AMEC wrote to the Minister for Mines and Petroleum and expressed concern with the Mines Safety and Inspection Levy.

In doing so, AMEC raised a number of significant and unexplained increases in costs, including:

1. Salaries and superannuation increase of 42% since inception ($11.473m to $16.274m for 2015/16),
2. Supplies and Services increasing by 38% over the 6 years,
3. Office accommodation having a significant increase of 313%, from what appears to be as a result of a re-location to East Perth,
4. Corporate costs increase of 73% since 2010/11, and
5. Total costs of the RSD increasing from $20.223m to $30.976m in 2015/16.

AMEC requested a detailed explanation on each of these increases and ongoing detailed documentation (to be agreed) of annual expenditure in order to achieve better transparency.

In doing so, AMEC requested details on:

1 The Full Time Equivalent (FTE) numbers for the Resources Safety Division (RSD) from 2010/11 to 2015/16 (broken down between management, inspectors, and administrative staff),
2 The number of staff, their vocation and substantive level, receiving an Attraction and Retention Incentive (ARI) bonus, and the total cost of that ARI to the budget,
3 The number of staff engaged on fixed term contracts, and their approximate expiry dates,
4 Future RSD workforce planning strategies, particularly noting the current industry downturn and economic cycles,
5 Why industry is required to meet the accommodation costs of the RSD ($2.276m for the 2015/16 year),
6 Why industry is required to meet the fit out costs of the accommodation in 1 Adelaide Terrace East Perth,
7 What staff savings will be achieved as a result of the proposed National Harmonisation project,
8 What staff savings will be achieved as a result of the proposed consolidation of safety legislation (mine safety, petroleum and major hazards).

AMEC has not received a response to any of these questions.

Lack of rules surrounding the use of the Mines Safety Levy

There do not appear to be stringent rules surrounding the use of funds raised through the Mines Safety Levy.

In fact, there appears to have been several expenses which should not have been met by the funds raised from the levy eg fit out and accommodation expenses when the RSD moved from Cannington to East Perth.

Budget Paper No.3 for 2014/15 (page 150) clearly states that '*an additional $11.2 million will be spent over the five years from 2013/14 to meet increased leasing costs relating to the RSD`s relocation to East Perth. The increased expenditure will be offset by an increase in the RSD`s fees and charges.'*

Page 189 also states that '*An amount of $2.1 million will be spent over three years from 2013/14 on fit out costs related to the RSD`s relocation to East Perth.'*

These costs represent an extra $13.3 million impost over the Forward Estimates on the Mines Safety Levy fund, and are additional to the recurrent costs that were built into the budget for the Cannington premises.

This is inappropriate and unwarranted, particularly as AMEC or the industry had no input to the decision to relocate the RSD to East Perth. In fact, many members have questioned the necessity for the re-location and made the observation that Inspectors should be on site and not sitting in offices in East Perth.

It is unclear to AMEC on what is included in the expense item for *'corporate costs'* of $6.181 million for the 2015/16 year,[1] or the rationale on why these costs are being funded through the Levy. The quantum also appears to be excessive as it represents 19.95% of total expenses for that period.

Other known cost recovery models adopt a more equitable and inclusive '*user pays-user says'* concept, such as that used by the WA Department of Fisheries when applying cost recovery on the professional fishing industry. AMEC considers that such a model should be used with the Mines Safety Levy, if it is retained.

Perception of highly paid Inspectorate staff

Based on previous job vacancy advertisements, members perceive that Mines Inspectors are highly paid. It is noted that most advertisements have referred to an Attraction and Retention Incentive (ARI) of 20% on the base salary, resulting in annual salaries in excess of $150,000, and far greater for Regional Inspectors.

The ARI concept was introduced some years ago by the State Government as a means to combat and compete with employment conditions in the mining sector for 'key specialist positions'.

The *Resources Safety Matters* publication for February 2016 (page 73) indicates that WA`s monthly mining workforce was around 65,000 in January 2009, peaking at approximately 105,000 in July 2013, and now reducing to around 80,000.

This shift is reflective of the transition from construction to production, with the result that demand for engineers, geologists and other mining related occupations has eased considerably, as has wage pressure.

It is understood that most Mines Inspectors are appointed on three year contracts. It is assumed that new terms and conditions will be negotiated at the time the contract is renewed or lapsed, including the retention or otherwise of the ARI.

Increased efficiency required

The majority of mineral exploration and mining companies continue to review and assess all aspects of their business operations. As a result we have seen projects deferred, put on care and maintenance or closed. There have been significant job losses. Exploration activity has also been significantly curtailed by current economic and market conditions.

Workload in RSD should have reduced as a consequence of the reduction in operating mines. Based on publicly available information, it is not apparent that the RSD is applying the same cost and efficiency restraints.

Flexibility essential

RSD must be flexible due to cyclical nature of the industry. As detailed previously, the mining workforce has reduced considerably, a number of mines have been placed on care and maintenance or closed.

[1] Per letter from DG DMP dated 20 August 2015

The future workforce planning strategy for the RSD should respond to these changes, and continue to use contracts.

Improved communication skills required

Some members have expressed concern on the varying communication skills and attitude of Inspectors, where some have strong interpersonal and conciliatory skills and others have a confrontational and command and control attitude when conducting audits.

Improved communication skills throughout the Inspectorate should be encouraged to ensure an environment where there is trust and a common understanding of the issues, needs of the regulator, and the practical application of those needs on site.

Varying skill sets of Inspectors

It would appear that all Inspectors receive specialist training by DMP prior to becoming 'authorised' under the Mines Safety and Inspection Act. Ongoing internal and structured training is also a common feature in the professional development of each Inspector.

Despite considerable training being undertaken by Inspectors, and paid for through the Mines Safety Levy, there still appears to be industry concern with the poor skill sets within the Division.

Reduced red tape essential

Industry has expressed concern with the current significant administrative and compliance burden in addressing the complexity and prescriptive requirements of the levy.

Industry has indicated that accurately and precisely reporting actual hours is a complicated process. This is particularly significant on large mine sites where employees and contractors come go and are recorded on swipe card systems. Significant preparation and auditing resources are necessary to provide precise and accurate reporting of hours to apply a Mines Safety levy, and overall this is a very inefficient process.

In some instances, companies have advised that the calculation of the safety levy takes a lot more time than calculating the employee and contractor details for workers compensation insurance.

Equitable benchmarking

The Terms of Reference indicate that the review will investigate the current structure and operational plans for the 2015/16 financial year, and compare the staffing and resourcing of comparable inspectorates in Australia and New Zealand.

For such an analysis to be meaningful it is essential that any comparison and benchmarking is undertaken on an equitable basis, including consideration of the nature of the industry and the regulatory models being used in each jurisdiction ie risk based, self-regulation, co-management or full regulation.

Other industry questions, comments and observations

- Who wrote the Terms of Reference as they appear to be focussed on resourcing and funding rather than safety outcomes?
- What is the RSD staff turnover rate, and what are the reasons for the turnover?
- What are the implications if RSD is transferred to Work Safe per the proposed ALP policy?

10th June 2016

Richard Thomas
Partner - Risk
Deloitte Touche Tohmatsu
Tower 2, Brookfield Place
123 St George`s Terrace
PERTH WA 6000

Dear Richard

Review of the Department of Mines and Petroleum Resources Safety Division – follow up questions

Thank you for your letter dated 31st May 2016 seeking responses to various questions in relation to the AMEC submission dated May 2016.

The responses are as follows:

a) Companies are fully aware of their due diligence requirements in providing a safe working environment for employees and contractors. Accordingly, AMEC anticipates that there would be no reduction in safety standards as a consequence of any economic down turn in the industry. Most mining and exploration companies still have a clear safety objective of zero harm, and would ensure that safety outcomes are not compromised as a result of any productivity and efficiency improvements within their operation. In fact, companies recognise that robust and effective safety outcomes can also lead to increased efficiency, productivity and improved return on investment.

   The phased implementation of the Reform and Development at Resources Safety (RADARS) model was intended to overhaul the way safety and health in the resources and dangerous goods industries are regulated. This commitment was intended to respond to increased demands brought on by community expectations of improved safety and growth in the resources industry.

   Based on the DMP website, the RADARS philosophy is a vision for leading practice safety regulation, comprising:

   - Proactive, risk management approach,
   - Data driven decision making,
   - Less prescription where possible,
   - Improved transparency,
   - Nationally recognised competency.

   AMEC has supported the RADARS strategy primarily on the basis of the evidence and risk based approach, which should result in less DMP resources (Inspectors)

and not more. It is reasonable to assume that any downturn in the industry (such as a reduction in the number of operating mineral mines) would reduce the workload in the Resources Safety Division. In fact based on data provided by DMP, in 2008 there were 489 operating or under development mineral mines and 472 at the end of 2015.

It should be noted that there have been an increasing number of mines sites being recently placed on care and maintenance, or being closed. It is reasonable to assume that there has been a further reduction in the first half of 2016

Greenfield mineral exploration activity has also declined significantly over the past decade. There has also been a reduction in the total mining workforce from 105,000 in July 2013, to the current level of 80,000.

In view of this re-structuring within the industry it is expected that similar reductions should be occurring within the DMP as a whole, as well as the Resources Safety Division.

It was on this basis that AMEC considers that the RSD workforce planning strategies should be more aligned to mine cycles.

b) AMEC`s clear understanding of the combined effect in implementing the National Harmonisation project, and the consolidation of Mines Safety, Petroleum and Major Hazards Facilities legislation will result in efficiency savings to the Department of Mines and Petroleum Resources Safety Division.

In addition to verbal comments at workshops on the issues, references to efficiency savings have also been made in Regulation Impact Statement Consultation Papers.

For example, the RIS Consultation Paper on the Work Health and Safety (Resources) Bill – page 9 – indicated that the objective for change in the legislation covering the resources sector is to:

> *'develop a modern and adaptable regulatory framework that supports the delivery of high standards of safety in an efficient, equitable and consistent manner across mining, petroleum and MHFs.'*

A DMP presentation on the same topic on 23 July 2015 indicated that '*the adoption of a risk based approach with less prescription and increased adaptability would reduce regulatory outcomes. It would also result in increased efficiencies within the Department.'* In fact, at the time, AMEC sought clarification on the impact on industry, noting that the emphasis of the RIS were savings within DMP. The verbal response was that the impact on industry was beyond the scope of the RIS.

In previous correspondence dated 19th December 2014 to the Consultant reviewing the future structure of mining, petroleum and major hazard facilities safety legislation, AMEC requested a copy of the business case and SWOT analysis

underpinning the reform agenda, including identified efficiency savings within the Division and the potential implications on the cost recovered mines safety levy paid by industry. No response has ever been received.

It was for these reasons that AMEC wrote to the Minister for Mines and Petroleum in December 2015 to obtain answers to these questions. Again, no response has been received other than this Review being commissioned as a result.

c) Further details on Attraction and Retention Incentives (ARI) are available at https://publicsector.wa.gov.au/publications-resources/instructions-standards-and-circulars/approved-procedures/approved-procedure-7-attraction-and-retention-incentives.
The guidelines indicate that the:

> *'objective of ARIs is to provide a procedure for agencies within the Public Sector facing skills shortages in critical roles to offer an ARI in order to attract and retain skilled staff.'*

As detailed in the AMEC submission, it is understood that most, if not all Mines Inspectors and Regional Inspectors are in receipt of an ARI. This was intended to attract staff from the resources and other industry sectors for what would have been considered as 'critical roles / key specialist positions'.
The ARI bonus is apparently only payable upon satisfactory completion of individual key performance indicators.

d) Your question alludes to the issue of 'poor performance'.
AMEC has not made any such assertion in its submission. The concerns being expressed were in respect of the differing inter-personal skills between Inspectors when conducting audits, and the practical on site application of some of the demands on industry. AMEC is unaware of any formal complaints being made by industry concerning performance of Inspectors.

e) AMEC has not commissioned any specific research on the overall cost of doing business in exploration and mining in WA.

f) AMEC has not commissioned any specific research on all Commonwealth, State and Local Government taxes, fees and charges incurred by industry.

If you require clarification on any of the issues in this correspondence please do not hesitate to contact myself or Graham Short, AMEC`s National Policy Manager.

Yours sincerely

Simon Bennison
Chief Executive Officer

Appendix F – APLA submission

Amalgamated Prospectors and Leaseholders Association of W.A. Inc.
PO Box 2570 Boulder WA 6432.

Representing Prospectors Since 1904

APLA is a volunteer unfunded association whose constitution demands the protection, fostering and furtherance of the rights of prospectors, miners and leaseholders across the State of Western Australia.

28/04/2016

Re: Submission on the review of The Mines Safety Inspection Act 1994.

1. APLA has only recently been made aware of a DMP workshop held on 10/3/2016 regarding the review of this Act. APLA questions why it was never made aware of or invited to this information session when it is now well established within the DMP and the Minister's office that APLA has members that operate small mines.

2. The Minister must be made aware of the above omission to prevent a repetition of the fate of the Mining Legislation Amendment Act 2015 which is currently stalled in the Legislative Council of the WA Parliament.

3. In the Kenner Report of 2009, there is a clear threshold level in Recommendation 13 for "small open pit mines and quarries". APLA can see no such minimum threshold for the application of the requirements within the proposed new systems. It can only assume from this omission that small miners will be included. Clarification is required here.

4. APLA asks whether a threshold is to be applied and if so what system of regulation and compliance will be applied below such a threshold?

5. APLA is concerned at the suggestion that the cut-off for formal qualifications at para 16 could be reduced in number from 25 to less than 25 employees.

6. It is obvious from the proposal that small miners will be costed out of business if these systems are forced upon them. How does the DMP intend to prevent this from happening?

7. APLA wishes to be included in all future DMP stakeholder sessions and should be included in all communications regarding this serious matter.

8. With APLA membership consisting mainly of widespread prospectors and miners, what steps will be taken by the review committee to ensure the opinions of regional areas are taken into account?

9. Is the DMP willing to pay reasonable travelling costs for APLA representatives to travel to Perth to be heard on such an important issue?

Les Lowe

APLA President

Phone 0428679782 or 95276448

Amalgamated
Prospectors and
Leaseholders
Association of W.A. Inc.

Representing Prospectors
Since 1904

PO Box 2570, Boulder, WA 6430

Appendix G – AusIMM submission

SUBMISSION TO DELOITTE TOUCHE TOHMATSU'S REVIEW OF THE WA DEPARTMENT OF MINES AND PETROLEUM RESOURCES SAFETY DIVISION MINES SAFETY BRANCH RESOURCING AND FUNDING

31 MAY 2016

Contact

The Australasian Institute of Mining and Metallurgy
W: www.ausimm.com │ T: +61 3 9658 6100 │ F: +61 3 9662 3662
Michael Catchpole MAusIMM │ Chief Executive Officer │ E: mcatchpole@ausimm.com.au
Wayne Robins │ Director Strategy and Communications │ E: wrobins@ausimm.com.au

ABOUT AusIMM

The Australasian Institute of Mining and Metallurgy (the AusIMM) is the leading minerals professional association helping to build careers and communities through delivery of ongoing professional development services. Formed in 1893, AusIMM represents more than 13,500 minerals sector professional members across the globe, with its core in the Australasian region, within industry, government and academia.

The AusIMM represents a wide range of professions across mining including mining engineers, geoscientists, metallurgists, environmental scientists, general managers, health and safety and community engagement.

With a focus on 'enhancing professional excellence', the AusIMM provides an ongoing program of professional development opportunities to ensure our members are supported throughout their careers to provide high quality professional input to industry and the community.

Approximately 30 per cent of AusIMM's members are based in Western Australia.

SUBMISSION

Background

The AusIMM has developed this submission through a subcommittee of members of its Mining Society and Health and Safety Society.

The aim of this submission is to provide high-level comment which is representative of views of AusIMM members who have work experience that allows them to understand the function of the Mine Safety Branch of the WA Department of Mines and Petroleum's Resources Safety Division and the factors which influence the Branch's performance. This group of AusIMM members considers that an appropriately experienced and effective Mines Safety Branch (MSB) is an essential component of the resource industry in WA.

In the preparation of this submission, the AusIMM's subcommittee has to relied some extent on the following relevant publicly available documents:

- Kenner Report (2009);
- Pike River Royal Commission (2012); and
- Quinlan Audit (2014).

Submission Comments

The AusIMM does not have a detailed knowledge of the level of resources, structure or funding within the MSB, or priorities or potential changes that may result from current departmental plans or the outcomes of this review. We have therefore limited our commentary and drawn attention to areas of likely relevance and importance, based on relevant experiences and findings in other jurisdictions.

The AusIMM notes that the benefits (avoidance of high potential incidences[1]) of an effective safety regulatory regime are often invisible, but that the costs of regulatory regimes which have deteriorated are very transparent both within industry and to the Australian community. For this reason the AusIMM believes it is important this Review carefully examines the lessons learned from tragedies such as at Pike River Mine. The review therefore must carefully consider both the level of resourcing and how the regulator can attract and retain competent staff with relevant industry experience and technical knowledge.

[1] Defined as "an event, or a series of events, that causes or has the potential to cause a significant adverse effect on the safety or health of a person". Queensland Dept. Mines & Energy - Guidance Note QGN 06.

Kenner Report comments

In this report, Recommendations 22, 28 and 50 to 79 concern the competency requirements for mine managers and inspectors, the board of examiners and associated details. Recommendation 28 is for the required qualifications and experience for a district inspector to be retained as being the holder of a First Class Mine Manager's Certificates of Competency. Recommendation 22 requires that mining engineering remains a core competency for the most senior level of the inspectorate. The AusIMM supports these recommendations and believes a majority of AusIMM members would be opposed to any dilution of these requirements.

Recommendation 50 states that the current constitution of the Board of Examiners for statutory certificates be confirmed as appropriate, whilst in the longer term Recommendation 51 advises that the Board be replaced by a competency based system administered by a mining industry body or tertiary institution. The AusIMM does not consider Recommendation 51 as a workable alternative to the current arrangements. Any change to the current arrangement should be placed on hold until a nationally agreed system of competency is agreed by all states and territories as Recommendation 52 states. Any WA-only changes to competency standards will impact on the potential employability of AusIMM members from other Australian states. As a professional Institute, the AusIMM is against any such development.

Pike River Royal Commission and Quinlan Audit comments

Both of these reviews recommended a strengthening of the competency standards for those working in roles as Mines Inspectors. Given New Zealand and Tasmania already operate under a Workplace Health and Safety legislative regime, the AusIMM believes that the recommendations of the Pike River Royal Commission are important within the context of this current review.

General Comments

As a general comment, the AusIMM membership endorses the concept of certificate of competency. These certificates are directed at providing confidence that a person with statutory accountability for the running of a mine is competent to do so. This competency necessarily encompasses the technical and operational aspects of mining operations and is not separable from its health and safety dimensions. To improve the WA industry's ability to source the skills it needs to fill these essential roles, AusIMM supports a system of mutual recognition of professionals holding equivalent certificates of competency granted in other jurisdictions.

Issues relating to the Review of Legislative Requirements in the WA Mining Sector.

Recent Reviews.

Quinlan Report (2014):

- Skill set of existing inspectors need upgrading, particularly in the area of auditing.
- Workplace visits by the Inspectorate should form an essential element of any audit of mine safety.
- Training requirements of the inspectorate needs close scrutiny.
- Emphasis must be placed on the basic qualifications required of professional mining engineers and the means by which their knowledge can be maintained.

Kenner Report on Implementation of Harmonised Standards (2009):

- General Duty of Care Guidelines should be reviewed and updated under the auspices of the MIAC.
- Risk management model of safety and health regulations should be central to the management of all aspects of mining industry practices.
- A “safety case” approach or a “safety management system” be at the heart of hazard management and control.
- Mining Engineering discipline should be the core competency for the most senior positions in the Inspectorate supported by those qualified in special and/or generalist disciplines.
- Mines Inspectorate should undergo training and development in relation to:
    - Risk management.

        - Workplace Inspection methodology with focus on "whole of mine" reviews and OHS system audits and reviews.
        - Enforcement policy and DPP guidelines in prosecution.
        - Communication and leadership.
- MIAC prepare strategic plan focussing on Safety and Health vision and report against achievements
- The general Duty of Care Guidelines be revisited and updated under the auspices of MIAC.
- In the short to medium term the Board mechanism be retained for granting Certificates of Competency with the view to the ultimate adoption of a competency based system administered by a professional mining industry body or tertiary institution

All these issues should be progressed in accordance with the NMSF with particular reference to the development of nationwide, industry-based assessments of competency etc.

Duty of Care

As stated in the Department of Mines and Petroleum's "Accident and Incident Investigation Manual" (Third Edition 1996) Duty of Care can be defined as a "duty to take reasonable care to minimise foreseeable risk of injury to an employee". Of necessity in this context the term injury must also embrace "injurious or adverse health effects".

In the widest context the term Duty of Care includes the provision of safe:

- Systems of work
- Premises or work places
- Plant and equipment

Recent developments in New Zealand.

As a result of the Pike River disaster the legislative framework in New Zealand has been under government instigated scrutiny and following are some of the remedial actions being taken or under consideration:

- The previously disbanded “Board of Examiners” is being reinstated.
- The competency requirements for Certificates of Competency (CoC) is under review, as will be the competencies required of Mines Department Inspectors.
- Continuing professional development requirements are being instituted for CoC holders including the keeping of a Continuing Professional Development (CPD) log book and oral examination every five years.

Integrity of the Regulatory System.

Regardless of whether the States and Territories maintain their own Act and Regulatory frameworks or a national harmonised system is developed it is essential that the assessment and competency of CoC holders be retained by the relevant Government’s Department of Mines’ Board of Examiners. It is totally inappropriate to invest these requirements in a professional industry body or tertiary institution.

Indeed, the Government Department(s) responsible for administering the Act and Regulations for the mining industry should be adequately resourced and financed to discharge its inspectorial and auditing functions. A pre-requisite for all mining engineering Mines Inspectors responsible for underground mines should be previous impeccable experience as an underground mine manager.

A system of continuing education and training should be required of all mine managers and mines inspectorate, bearing in mind the rapidity with which the technology of mining is being impacted by robotics and automation etc.

Emphasis should be placed on “Risk Management Techniques” and the use of such tools as the “Sustainability, Opportunity and Threat Analysis” (SOTA) developed by the University of Queensland’s Sustainable Minerals Institute. This technique is ideal for use at workshops as a means of engaging with operational personnel since it progresses from:

- Information gathering, to
- Identifying risks, to
- Analysis and evaluation, to
- Treatment of risks, and finally to
- Regular reporting and reviewing.

Mining is and will remain a hazardous business and it behoves all of us associated with the industry to remember that the industry’s most important asset is its people and their continued health and welfare should always remain the industry’s first priority.

Odwyn.

3/06/16

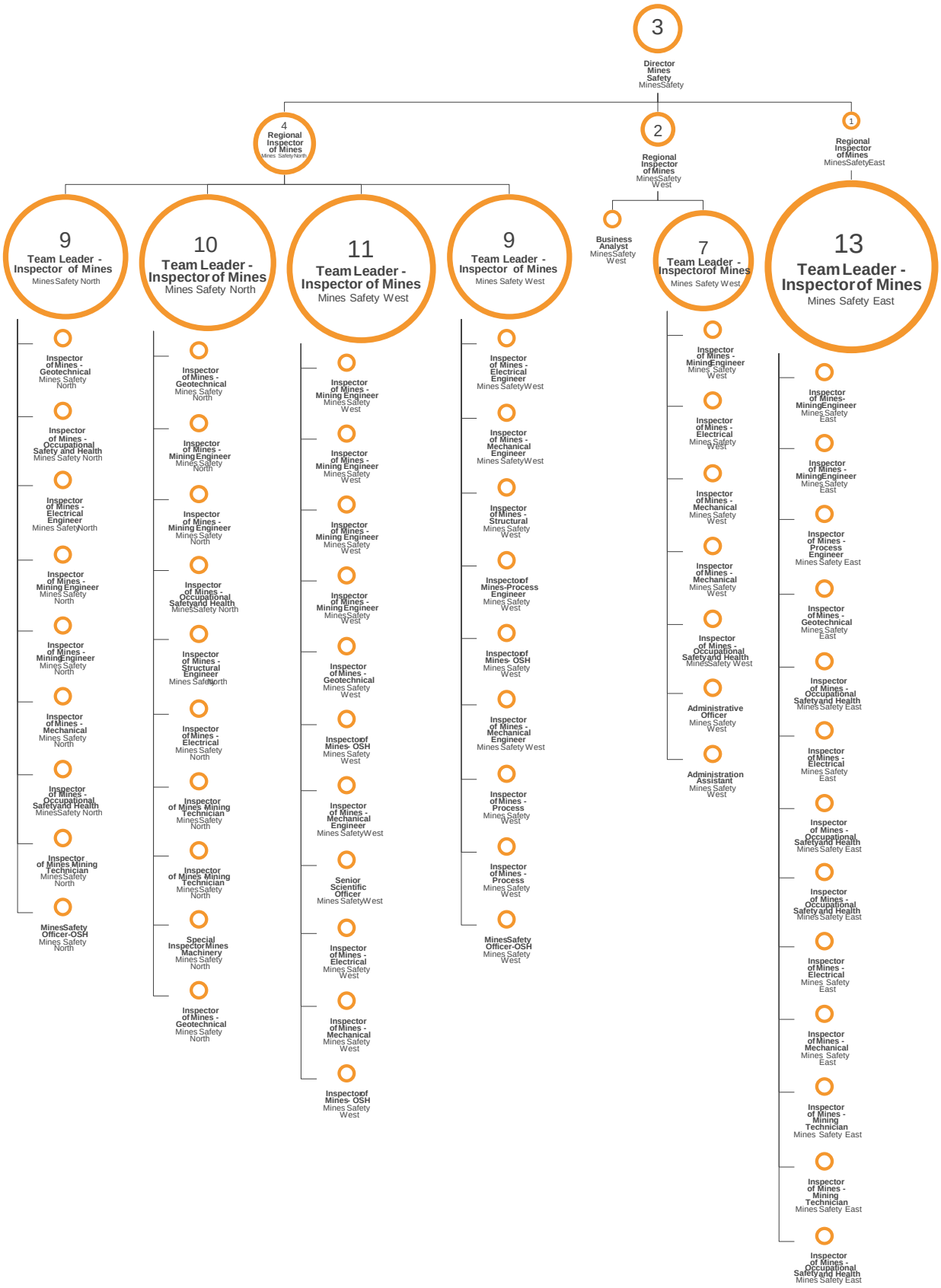
Appendix H – MSB activity over time

Activity	A					B					B/A %
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	
OHS Complaints	134	171	98	110	97	143	351	215	144	58	149%
Notifiable Incidents							2,567	2,599	2,448	2,375	n/a
Investigations	69	30	52	79			153	42	69	15	139.5%
Fatality investigations							1	6	3	7	n/a
Inspections	1,552	1,348	1,596	1,730	2,425	2,319	2,438	2,672	3,254	2,612	153.7%
INs Issued	409	1,102	664	787	629	721	681	763	716	533	95.1%
INs closed out							435	501	469	605	n/a
PNs Issued	72	115	76	75	156	142	131	170	159	193	160.9%
Audits	148	74	50	54	29	44	131	179	214	165^^	206.5%
SHRep contact	1,150	1,125	1,007	1,162	1313	1364	1,772	1,907	1,826	1,394	143.5%
PMP Approvals							85	88	80	73	n/a
RMP Approvals							17	24	18	21	n/a
Classified Plant registrations							206	57	101	44	n/a
Training - attendance							801	257	239	370	n/a
Training certificates awarded							238	162	74	110	n/a

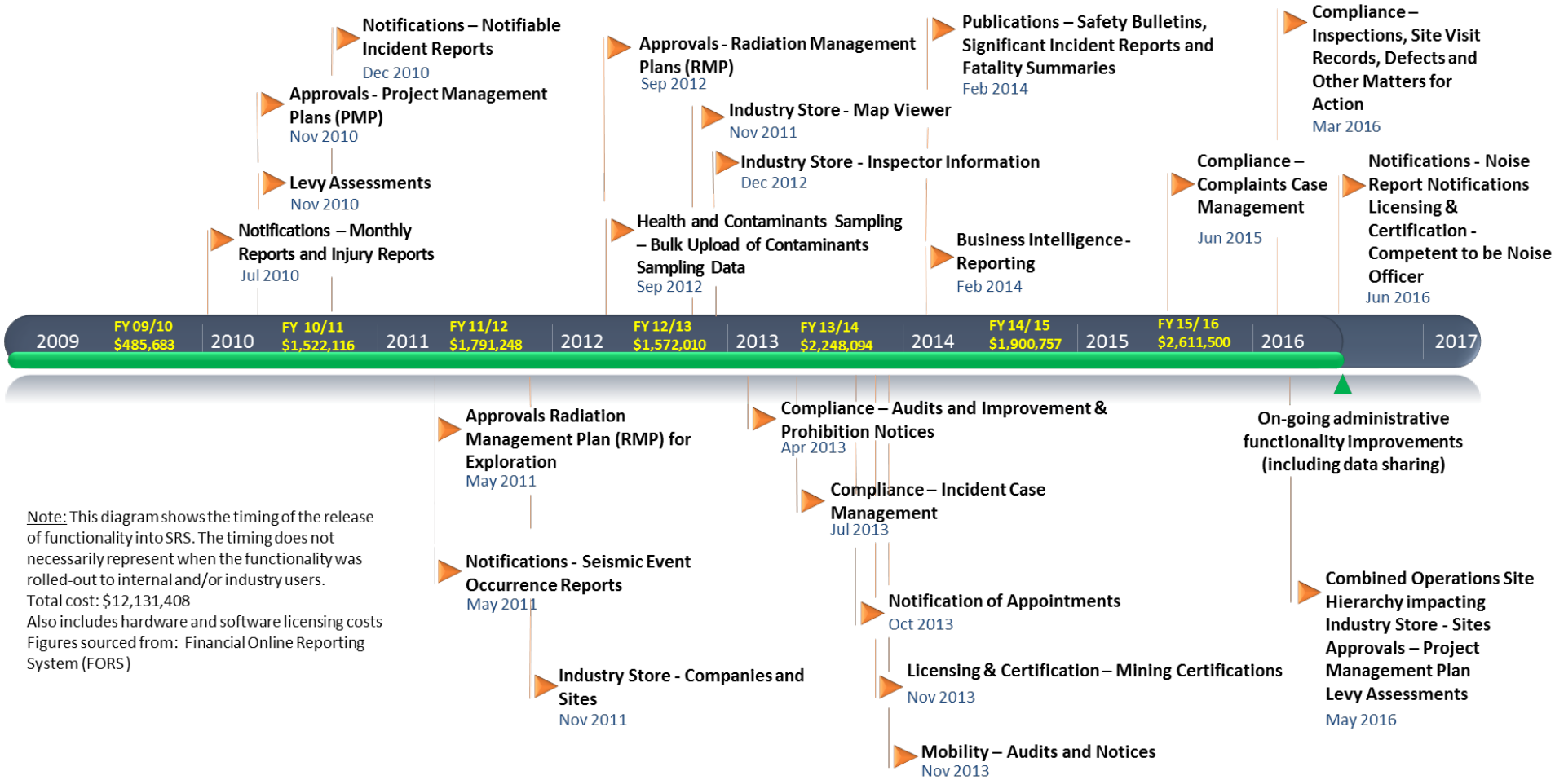
A. Kenner Review (2009) data & DMP provided data

B. DMP RADARS reported statistics

Appendix I – detailed span of control view


3
Director Mines Safety
MinesSafety
4
Regional Inspector of Mines
Mines Safety North
2
Regional Inspector of Mines
MinesSafety West
1
Regional Inspector of Mines
MinesSafetyEast
9
Team Leader - Inspector of Mines
Mines Safety North
Inspector of Mines - Geotechnical
Mines Safety North
Inspector of Mines - Occupational Safety and Health
Mines Safety North
Inspector of Mines - Electrical Engineer
Mines SafetyNorth
Inspector of Mines - Mining Engineer
Mines Safety North
Inspector of Mines - MiningEngineer
Mines Safety North
Inspector of Mines - Mechanical
Mines Safety North
Inspector of Mines - Occupational Safetyand Health
MinesSafety North
Inspector of Mines Mining Technician
MinesSafety North
MinesSafety Officer-OSH
Mines Safety North
10
Team Leader - Inspector of Mines
Mines Safety North
Inspector of Mines - Geotechnical
Mines Safety North
Inspector of Mines - MiningEngineer
Mines Safety North
Inspector of Mines - Mining Engineer
Mines Safety North
Inspector of Mines - Occupational Safetyand Health
MinesSafety North
Inspector of Mines - Structural Engineer
Mines SafetyNorth
Inspector of Mines - Electrical
Mines Safety North
Inspector of Mines Mining Technician
MinesSafety North
Inspector of Mines Mining Technician
MinesSafety North
Special Inspector Mines Machinery
Mines Safety North
Inspector of Mines - Geotechnical
Mines Safety North
11
Team Leader - Inspector of Mines
Mines Safety West
Inspector of Mines - Mining Engineer
Mines Safety West
Inspector of Mines - Mining Engineer
Mines Safety West
Inspector of Mines - Mining Engineer
Mines Safety West
Inspector of Mines - Mining Engineer
Mines Safety West
Inspector of Mines - Geotechnical
Mines Safety West
Inspectorof Mines- OSH
Mines Safety West
Inspector of Mines - Mechanical Engineer
Mines SafetyWest
Senior Scientific Officer
Mines SafetyWest
Inspector of Mines - Electrical
Mines Safety West
Inspector of Mines - Mechanical
Mines Safety West
Inspectorof Mines- OSH
Mines Safety West
9
Team Leader - Inspector of Mines
Mines Safety West
Inspector of Mines - Electrical Engineer
Mines SafetyWest
Inspector of Mines - Mechanical Engineer
Mines SafetyWest
Inspector of Mines - Structural
Mines Safety West
Inspectorof Mines-Process Engineer
Mines Safety West
Inspectorof Mines- OSH
Mines Safety West
Inspector of Mines - Mechanical Engineer
Mines Safety West
Inspector of Mines - Process
Mines Safety West
Inspector of Mines - Process
Mines Safety West
MinesSafety Officer-OSH
Mines Safety West
Business Analyst
MinesSafety West
7
Team Leader - Inspectorof Mines
Mines Safety West
Inspector of Mines - MiningEngineer
Mines Safety West
Inspector of Mines - Electrical
Mines Safety West
Inspector of Mines - Mechanical
Mines Safety West
Inspector of Mines - Mechanical
Mines Safety West
Inspector of Mines - Occupational Safetyand Health
MinesSafety West
Administrative Officer
Mines Safety West
Administration Assistant
Mines Safety West
13
Team Leader - Inspectorof Mines
Mines Safety East
Inspector of Mines- MiningEngineer
Mines Safety East
Inspector of Mines - MiningEngineer
Mines Safety East
Inspector of Mines - Process Engineer
Mines Safety East
Inspector of Mines - Geotechnical
Mines Safety East
Inspector of Mines - Occupational Safetyand Health
Mines Safety East
Inspector of Mines - Electrical
Mines Safety East
Inspector of Mines - Occupational Safetyand Health
Mines Safety East
Inspector of Mines - Occupational Safetyand Health
Mines Safety East
Inspector of Mines - Electrical
Mines Safety East
Inspector of Mines - Mechanical
Mines Safety East
Inspector of Mines - Mining Technician
Mines Safety East
Inspector of Mines - Mining Technician
Mines Safety East
Inspector of Mines - Occupational Safetyand Health
Mines Safety East

Appendix J – SRS development timeline



Note: This diagram shows the timing of the release of functionality into SRS. The timing does not necessarily represent when the functionality was rolled-out to internal and/or industry users.
Total cost: $12,131,408
Also includes hardware and software licensing costs
Figures sourced from: Financial Online Reporting System (FORS)

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte has in the region of 225,000 professionals, all committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms, Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 6,000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit Deloitte's web site at www.deloitte.com.au.

Government of **Western Australia**
Department of **Mines and Petroleum**

Response to recommendations in Deloitte's *2016 Mines Safety Branch resourcing and funding independent assessment*

Findings / recommendations	DMP responses
Recommendation 1 (p.8) DMP should consult with relevant parties to ensure that, with harmonisation, the definition of a 'mine' is consistent through WA's legislative instruments. ***Mining Act 1978*:** ***mine***, as a noun, means any place in, on or under which mining operations are carried on; ***mine***, as a verb, includes any manner or method of mining operations; ***Mines Safety and Inspection Act 1994*:** ***mine*** means a place at which mining operations are carried on and, where mining operations are being carried on in conjunction with one another at two or more places, those places are to be taken to constitute one mine unless the State mining engineer notifies the principal employer in writing otherwise in accordance with subsection (3); and ***to mine*** includes to carry on any manner or method of mining operations;	**DMP supports this recommendation.** The Mines Safety Branch will ensure consistency and clarity in its terminology to avoid confusion.
Recommendation 2 (p.11) DMP should formalise its risk assessment process for WA mine sites, using a defined set of criteria that enables a consistent approach across industry. The risk criteria could be built into SRS so that particular factors drive higher risk levels and are drawn to the attention of the applicable Inspector, thereby encouraging appropriate action.	**DMP supports this recommendation.** The Mines Safety Branch has developed a risk profile system which delivers a more targeted, risk-based approach to inspections. The system estimates resources required to regulate each mine site, based on objective risk assessments. The development of a formalised inspection scheduling module based on risk is also underway. DMP has undertaken analysis of injury reports for incidents which resulted in fatalities or serious injuries in the industry. This data has been used to develop a Hazard Register, which identifies hazardous tasks and the occupational groups most at risk. It provides industry and inspectors with useful information to help prevent future incidents.
Recommendation 3 (p.14) DMP should define what success looks like for MSB as a safety regulator, tied to the Objects of the Act. These success factors and key regulatory focus areas should be detailed in a MSB regulatory strategy that is consulted with industry to enable buy-in and a common understanding.	**DMP supports this recommendation.** DMP is developing a *Work Health and Safety Roadmap for the WA Resources Sector.* This document will include the Mines Safety Branch's regulatory strategy, including focus areas and success measures. This will be released by April 2017 and be subject to regular review and stakeholder consultation.
Recommendation 4 (p.16) DMP should review the senior level structure of MSB and consider consolidation at the Regional Inspector level, or alternatively, removal of this management layer and defining clear accountability at the Team Leader level for regional matters. Changes should then be clearly updated in position descriptions.	**DMP supports this recommendation.** The Roadmap, incorporating the Mines Safety Branch business strategy, determines the workforce requirements, senior level structure and accountability framework.

Findings / recommendations	DMP responses
Recommendation 5 (p.17) DMP should consider whether a more effective span of control could be achieved through structuring small teams under the Lead Technical Investigator roles.	**DMP supports this recommendation.** Principal Investigator positions (Team Leaders) have been created and DMP has completed the recruitment processes for the four positions.
Recommendation 6 (p.18) DMP should consider: a) Undertaking a more strategic workforce planning activity to understand the demand for critical capabilities and the available supply in the WA labour market b) Developing a more flexible approach to talent and supporting talent strategies to enable better responsiveness to changing capability requirements (e.g. establish a pre-qualified panel of inspectorate providers who are able to be appointed by the Minister as inspectors at short notice).	**DMP supports part (a) but does not support part (b) of this recommendation.** DMP's strategic workforce planning aims to ensure the inspectorate workforce has the critical capabilities to meet current and emerging business objectives of the Mines Safety Branch. Effective discharge of regulatory authority requires appropriate training, ongoing application and supervision. These skills and competencies are best delivered by departmental staff. However, some specialist skills are sourced through short-term contracts related to projects.
Recommendation 7 (p.21) Once the harmonised legislation is drafted, MSB should undertake a skills assessment to ensure it is has the appropriate mix of skills to deliver its regulatory service to industry. The assessment should: a) Define competencies that are required within the ideal inspectorate b) Undertake a skills-based analysis of the inspectorate against these requirements c) Develop a skills training programme to fill any skill gaps or recruit skilled personnel as required. The skills assessment process should then be regularly undertaken to confirm suitability of the current skillsets of the inspectorate. We would suggest undertaking as part of the regulatory strategy development and review.	**DMP supports this recommendation.** Ensuring the Mines Safety Branch has an appropriately skilled workforce is part of its ongoing strategic workforce planning.
Recommendation 8 (p.22) DMP could consider redesigning the ARI process. Potential options could include: • An ongoing quality assurance process, whereby an experienced inspector reviews activity through SRS for consistency, accuracy and relevance. The ARI panel then reviews these results • The ARI panel utilises SRS and randomly selects inspector activity for assessment, thereby removing the burden on the inspector and increasing the independence of the review. Should the process not be redesigned, DMP should: a) Review the ARI PIs to ensure they align with MSB's newly developed regulatory strategy (refer to Recommendation #3) b) Monitor inspector time attributed to the ARI process to ensure it is fit-for-purpose c) Automate as much of the evidence collection process as possible.	**DMP will consider this recommendation during its review of the ARI processes.** DMP is reviewing the efficiency and effectiveness of the ARI scheme.

Findings / recommendations	DMP responses
Recommendation 9 (p.24) DMP should establish a mechanism to identify, track and formally report on the status of [Kenner] recommendations and corrective actions. Reporting of implementation status against agreed timeframes should be reported to DMP Executive and Audit and Risk Committee, with a summary report to Mining Industry Advisory Council (MIAC) and the Ministerial Advisory Panel (MAP), as appropriate.	**DMP supports this recommendation.** Implementation of some of the Kenner Report recommendations is deferred pending the development and implementation of reforms under the Work Health and Safety (Resources and Major Hazards) Bill. Following the State Election in March 2017, the elected Government will decide the timing for introducing the Bill into Parliament. Stakeholders are kept updated on the progress of the Bill. In the meantime, DMP will publish the status report on implementation of the Kenner recommendations by April 2017.
Recommendation 10 (p.28) MSB should establish a set of SMART Key Performance Indicators tied to its regulatory strategy, which are focused on the performance outcomes not output of processes for public reporting.	**DMP supports this recommendation.** Mines Safety Branch performance indicators will be included in the *Work Health and Safety Roadmap for the WA Resources Sector*.
Recommendation 11 (p.29) MSB should develop and publish a range of efficiency and effectiveness KPIs that focus inspectorate activity on delivering the right thing, at the right time in an effective and efficient manner.	**DMP supports this recommendation.** Mines Safety Branch performance indicators will be included in the *Work Health and Safety Roadmap for the WA Resources Sector*.
Recommendation 12 (p.36) DMP should investigate options to commence budgeting processes for the levy rate closer to the actual period in which it will become relevant to ensure a greater capture period of actual results.	**DMP does not support this recommendation.** DMP is bound by the Department of Treasury *Treasurer's Instruction 810 'Review of Fees and Charges'* which sets the timetable for annual reviews of government fees and charges.
Recommendation 13 (p.37) DMP should consult with its Minister regarding the current levy regime to commission a study and economic analysis that looks into the feasibility of different levy models, if further analysis is believed required beyond this paper.	**DMP supports this recommendation** DMP will review levies under a separate consultation process. This will occur following a decision regarding the Work Health and Safety (Resources and Major Hazards) Bill by the Government (Refer to response to Recommendation 9).
Recommendation 14 (p.40) DMP should: a) Lockdown the levy work books so that only key data entry points are editable b) Secure the work books so that the underlying levy formulas cannot be erroneously altered c) Provided more detailed working instructions to the user. At present, the calculation of the levy relies on a small number of personnel d) Include an analysis tool that enables key DMP personnel to scrutinise the changes in the levy (e.g. if costs were to increase, what's the impact?).	**DMP supports this recommendation** DMP is reviewing the levy administrative processes as per this recommendation.

Findings / recommendations	DMP responses
Recommendation 15 (p.42) If the current levy regime is to remain sustainable and palatable to industry, MSB must drive cost efficiencies in its operations to avoid long term recurrent deficits.	**DMP supports this recommendation** Mines Safety Branch is developing additional business performance indicators to monitor the costs of delivering services over time and identify cost efficiencies.
Recommendation 16 (p.43) DMP should investigate the accommodation lease costs to ensure that no costs have been attributed to the cost base of the levy, which should have been charged directly or by allocation to other operational service areas.	**DMP supports this recommendation** The allocation of accommodation lease costs within Resources Safety is regularly reviewed to ensure they are appropriately apportioned.
Recommendation 17 (p.44) DMP should investigate the system development costs to ensure that no costs have been attributed to the cost base of the levy, which should have been charged directly or by allocation to other operational service areas. DMP should also consider whether it should have capitalised the development costs pursuant to AASB 138 and amortised them over the periods that will derive benefit from them.	**DMP supports this recommendation** System development costs are apportioned according to well-developed rules. DMP has previously considered whether to capitalise systems development costs and has chosen not to at this time due to the Government approving the expenditure as recurrent.
Recommendation 18 (p.45) DMP should: a) Design a range of accountability measures that enforce efficiency into its operations or are able to demonstrate efficiency gains have been sought b) Consider what mechanisms can be used to increase transparency regarding the use of levy funds to industry.	**DMP supports this recommendation** DMP publishes an Annual Achievements and Performance Report to report on levy expenditure. Developed in consultation with industry, the report is distributed to industry peak bodies and published on the DMP website. The performance indicators in the report will be reviewed in consultation with stakeholders, and may include new indicators being developed by the Mines Safety Branch (Refer to response to Recommendation 15).
Recommendation 19 (p.46) DMP should, through its Minister and in consultation with other government departments, request a study that investigates the volume of fees and charges the industry is required to pay. The focus of the study should be to determine whether the volume of fees and charges are fair and equitable. Also, the study could consider the potential for a one payment, single licence to operate approach, through which one agency may collect funds and allocate to other Departments.	**DMP does not support this recommendation.** This is a whole-of-government matter. DMP continues to work within existing Treasury guidelines (Refer to response to Recommendation 13).