REPORT

2018 Registered Managers Forum

Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**

Introduction

The fourth annual Registered Managers Forum was held on 17 August 2018. This is a key event for the Department of Mines, Industry Regulation and Safety (DMIRS) to network with resources industry management, channel information, and hear the point of view of decision-makers in industry.

Nearly a hundred managers, including registered managers, quarry managers, underground managers and alternatives attended the forum.

The main theme of the forum was competency and training for the Western Australian mining sector.

Forum format

The forum was divided into two sessions – information giving and a workshop.

Information giving

The forum opened with a welcome from facilitator, Andrew Chaplyn, State mining engineer.

Mines and Petroleum Minister, William (Bill) Johnston and Acting Deputy Director General, Ian Munns provided an overview of safety, including the government and Department's commitments. Following their speeches, there was a question and answer (Q&A) session facilitated by Inspector of Mines Amy Douglas-Martens with panel members Minister Johnston, Mr Munns and Mr Chaplyn.

After the Q&A, Mr Chaplyn spoke about the Department's *Towards 2020* commitments and the new WHS Act, participants were also asked to contribute their thoughts to the question "why aren't we improving".

Prior to lunch there were updates on health and hygiene management plans and the Safety Regulation System (SRS) from Craig Little, Team Leader Inspector of Mines.

General Manager Investigations, Colin Boothroyd, finished the morning's presentations with an update on investigation services.

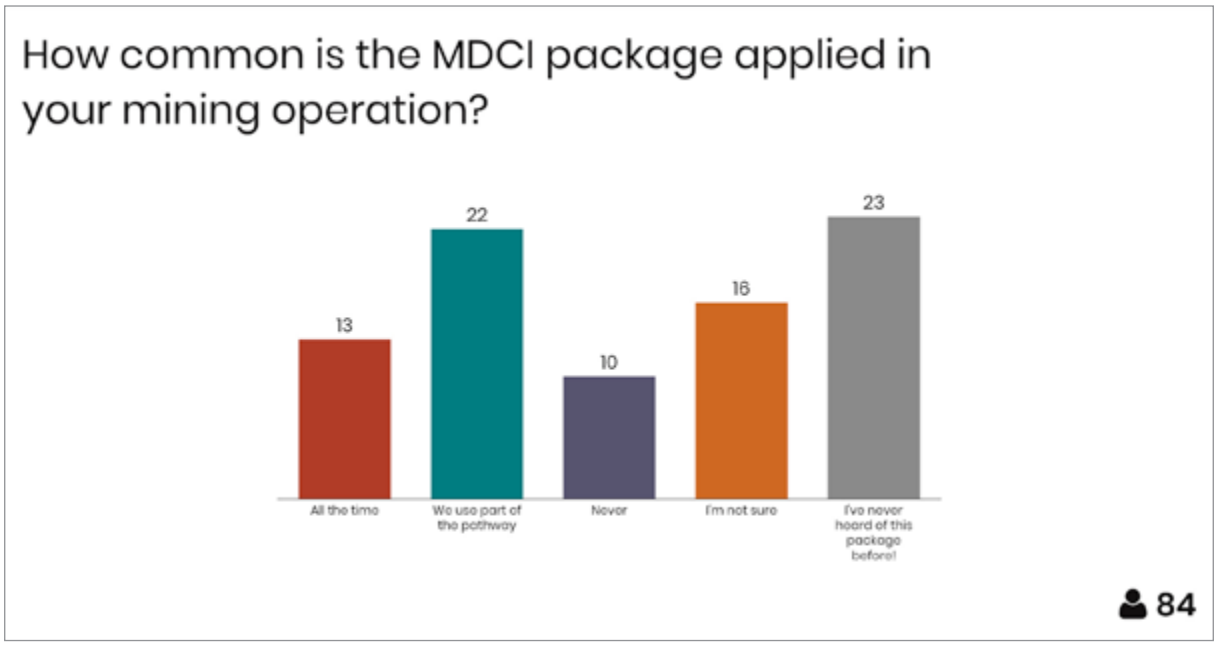
After lunch, Regional Inspector, Martin Ralph and Team Leader Inspector of Mines, Waeel Ilahi conducted a workshop on competency and training for the Western Australian mining sector.

The forum concluded with an update on the Mines Safety Roadshow from Ms Douglas-Martens and closing remarks from Mr Chaplyn.

Workshop

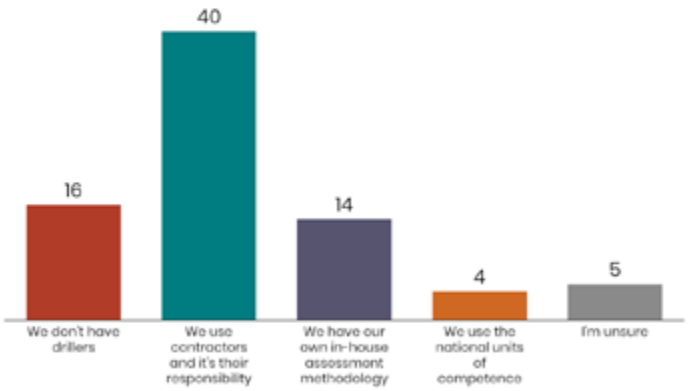
Participants were asked to provide feedback through a live polling system. The live polling components captured participants' views on competency and training.

The discussion points referred to:



Note: MDCI is the acronym for mining, drilling and civil infrastructure

How are you currently assessing the competence of drilling workers engaged on your mining operations?



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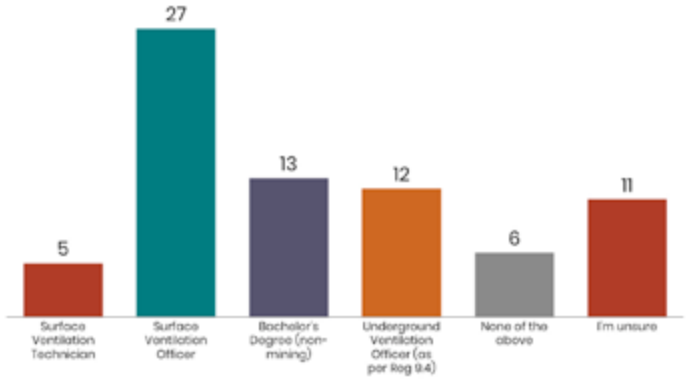
What is the highest level of competency held by your ventilation personnel for your mining operation?



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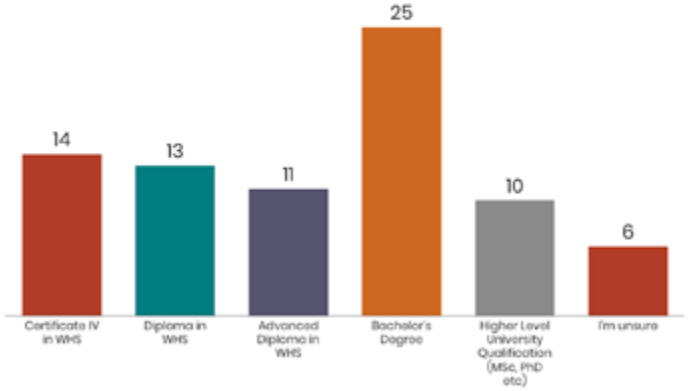
What is the highest level of competency held by your workplace safety personnel for your mining operation?



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Event survey responses

The majority of attendees at the forum believed it was a good opportunity to network with DMIRS staff and industry. Overall, 34% attended a previous Registered Mangers Forum and 96% would probably participate in 2019.

The participants were primarily registered managers of mine sites.

Conclusions

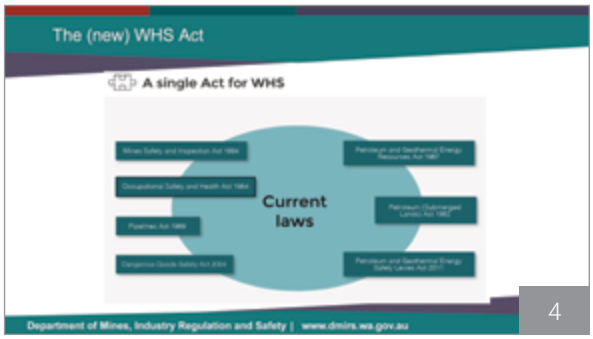
The forum continues to be an effective way to engage with industry. The event provided a rare opportunity for managers to come together to network and discuss safety issues of common concern.

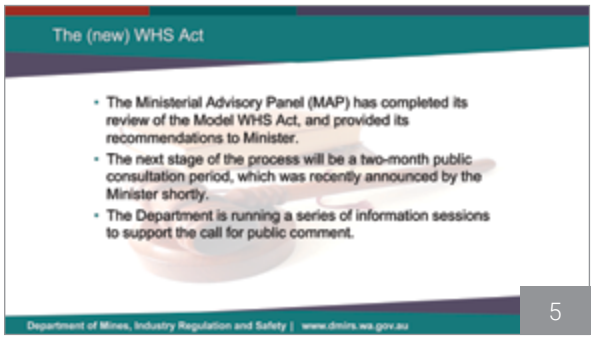
Recommendations

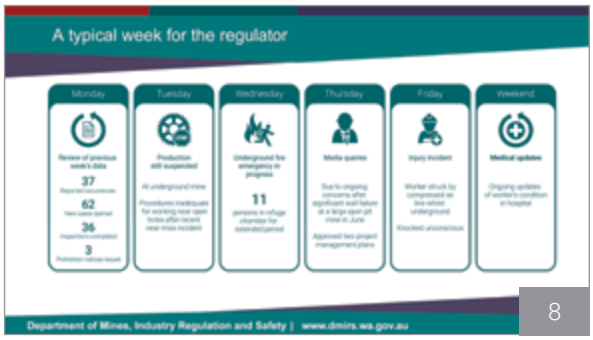
Registered Managers want non-official lines of communication with DMIRS, achieved through:

- Roadshows and events
- Toolbox discussions
- Safety videos
- Webinars
- Workshops on site
- Site leadership teams
- Face-to-face meetings
- Registered Manager training
- Forums
- Engagement with site management at site visits.

Appendix 1 Presentation slides







Safety regulator expectations of industry

To work with industry to reduce serious accidents and incidents, and to provide tangible support in achieving a positive cultural change.

Risk-based approach that places the onus on operators to demonstrate:

1. an understanding of the hazards and risks of their workplace
2. they are operating as safely as possible.

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Hazard registers

Available at www.dmirs.wa.gov.au

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Fatalities: What is the data telling us?

Why are we not improving?

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Serious injuries: What is the data telling us?

Why are we not improving?

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Serious injuries: A closer look

Why are we not improving?

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Working near open holes – information available

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Safety regulator expectations of industry

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Risk management – hierarchy of control

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Are you in control?

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Update on health and hygiene management plans (HHMP) and Safety Regulation System (SRS)

Craig Little
Acting Regional Inspector of Mines

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Why a HHMP?

- All workplaces have some form of chemical, biological, radiation or physical hazard that include:
  - Dusts, chemicals, noise, vibration, radioactive materials or devices, temperature extremes, bacteria, fungi, inadequate lighting
- Meets legislative requirement to:
  - Identify hazards
  - Assess risks
  - Implement Controls
  - Verify that controls are effective
- Provides a structured means of demonstrating an understanding of the hazards and risks at a mine site and verification that controls are effective.

When is a HHMP required?

- All registered mine sites require a HHMP (including exploration)
- Prior to operations commencing (i.e. hazards are identified and controls must be implemented prior to operations starting)
- Whenever a change occurs that alters risk profile
- An annual summary report if risk profile or controls not significantly different
- A five yearly formal and comprehensive report
- Very small operations may be exempt e.g. those exempt from requiring a Ventilation Officer and hazard management requirements are covered in Project Management Plans (PMP).

What should be included in HHMP

- Principal function e.g. exploration, quarry, process plant
- Status of operation e.g. new, reopening of suspended activities, expansion of existing facilities, continuation of normal operations
- Location, activities at site (a schematic flowchart may assist), techniques and controls, size of operation
- Basic geology e.g. principle mineral(s), contaminants in ore and waste, likelihood of harmful or flammable gases, chemically unstable minerals
- Process chemicals used or created
- Temperature and pressure of processing.

What should be included in HHMP

- Identify during
  - Exploration
  - Mining
  - Processing and stockpiling
  - Ancillary / support services
- Identify engineering, administrative and PPE controls
- Document hazards and controls.

What should be included in HHMP

- Define parameters used to assess risk and risk acceptability
- Can use corporate method or AS/ISO 31000
- Define Similar Exposure Groups (SEGs)
- Risk assess each SEG for the hazards
- Document risk assessment with controls in place.

What should be included in HHMP

- Includes
  - Atmospheric sampling
  - Biological monitoring
  - Noise dosimetry
  - Audiometric testing
  - Medical examinations
  - Ventilation system measurements e.g. capture velocities
  - Audits, inspections, questionnaires and examinations
- Record results and findings
- Submit results and summary to DMIRS via SRS or Workcover as applicable
- Conduct (statistical) analysis of results.

What should be included in HHMP

- Confirm and document controls that are effective
- Identify what additional controls are required
- Summarise and present in annual report.

Who has a role in HHMP development?

- Registered Manager
  - endorses plan and commits organisation to fulfil commitments within it
- Ventilation Officer
  - collates information, arranges production, ensures accuracy and is satisfied that methods and controls adequate
- Ventilation Technician
  - ensure samples collected in accordance with approved methods, submitted correctly and highlights anomalies
- Noise Officer
  - collates information, ensures accuracy and is satisfied that methods and controls adequate
- Geologists, Area Superintendents, Lab Manager, Village Manager, others
  - provides accurate and timely information about hazards and controls

HHMP submission and administration

- HHMPs will be submitted and administered via SRS
- Planned roll out for submission of HHMP Oct 2018
- Planned roll out of live HHMP (update and maintain) Q1 2019
  - Stats package
  - Interpretation of data
  - Compliance status (traffic lights) of monitoring (to the exposure standard)
  - Any red, site is red, can drill down and work out SEG that is red and focus effort at highest risk areas.

HHMP trial

- Positive feedback from mines and consultants
- Trialled with medium and large companies
- Trialled with consultants to small, medium and large mines
- Trialled with select group of inspectors and other Department officers with feedback indicating it is intuitive and user friendly.

Key points

- HHMP is an integrated risk-based management plan not just a monitoring program
- It supports the PMP by providing more detail on specific hazards
- It compliments the RMP, Noise Control Plan and other hazard management plans
- Current RBHMP are valid until the review time.

Exceedance management

- Recognise that PPE and administrative controls are used when higher order controls are not practicable, if organisation are robustly using these controls then the exceedances are triaged
- Guidance via template for incident investigation (PEEPO).

	Q1 January – March 2018	Q2 April – June 2018
Atmospheric	7,869 (125 – 1.6% exceed)	3,269 (61 – 1.9% exceed)
Noise	2,438 (1,372 – 56% exceed)	3,650 (961 – 26% exceed)
Biological monitoring	643 (13 – 2% exceed)	1,145 (8 – 0.7% exceed)

SRS reporting for industry

- Provide reporting function in SRS to allow an overview of operational performance
- Benchmarking across commodity.

SRS reporting for industry

- Planned roll out Q1 2019
- Will only be able to access for site where you have security
- Commodity data will sanitised.

Responding to natural deaths at WA mines (2012 - 2017)

Colin Boothroyd
General Manager Investigations

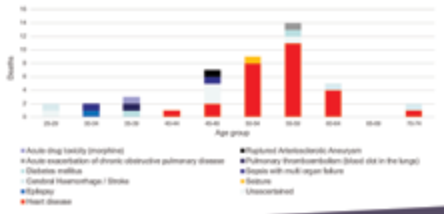
Factors considered

- Age of worker
- Date and time of event
- Death related to known existing medical condition: Yes/No
- Results from post mortem
- Onset of fatal episode witnessed: Yes/No
- Initial response to incident on/off site
- Death on/off site
- Area of mine where fatal event occurred
- Roster cycle, shift and hours of work
- Occupation group

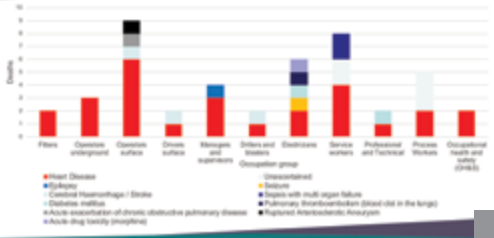
Cause of death

Heart disease including Coronary Thrombosis/ CAA/ CA/ IHD/ AHD/ post heart surgery	27
Cerebral Haemorrhage / Stroke	3
Sepsis with multi organ failure	2
Diabetes mellitus	2
Epilepsy (TBC)	1
Seizure	1
Pulmonary thromboembolism (blood clot in the lungs)	1
Acute exacerbation of chronic obstructive pulmonary disease	1
Ruptured Arteriosclerotic Aneurysm	1
Acute drug toxicity (morphine)	1
Unascertained natural cause	5
	45

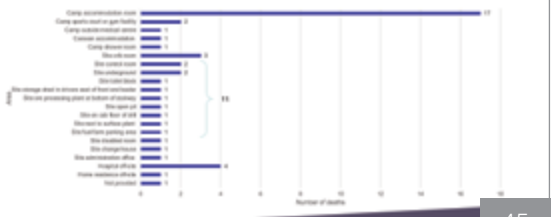
Age group and cause of death



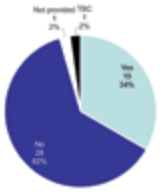
Occupation group and cause of death



Area where fatal event occurred and emergency response



Knowledge of pre-existing medical conditions



Recommendations

- Confirm fitness for work
- Plan and resource effectively
- Implement protocols to respond to unexpected deaths
- Continue reporting all deaths to the Department

Revision of National Competencies relevant to the WA mining industry

Martin Ralph
Regional Inspector Mines Safety

Waeel Ilahi
Acting Regional Inspector Mines Safety

Content

- Why do we care about "competency"?
- National Competencies
- Industry Reference Committees (IRCs)
  - Drilling
  - Extractive
  - Metalliferous
- IRC common projects
  - WHS Working Group
- Verification of Competencies (VOCs)

Legislation

MSIA 9(1) (b)

9. An employer must, so far as is practicable …
   b) Provide such information, instructions, training and supervision of employees as is necessary to enable them to perform their work in such a manner that they are not exposed to hazards …

Legislation

MSIR 4:13 (1) (b)

4.13. Induction and training of employees
(1) Each responsible person at a mine must ensure that every employee is:
b. assessed before commencing work at the mine to ensure that the employee is *competent* to perform the tasks he or she will be assigned and to operate any plant and equipment the employee will be required to operate

Why review the National Competencies?

To ensure students continue to learn work ready skills that meet industry needs

- This is performed by the Vocational Education and Training (VET) sector
- The aim is to adequately prepare students in various jobs
- The VET sector is key to ensuring that Australia remains globally competitive
- Skills identified by businesses and industries that are needed to be productive and internationally competitive.

National Competencies: VET System

VET system is based on:

- occupational skills standards set out in units of competency (UoC's); and
- packaged into nationally consistent qualifications;
- that reflect the skills and knowledge required to successfully operate in a particular occupation.

National Competencies: VET objectives

- Efficiencies gains for employers in recruitment and selection
- Assurance that an individual's qualification or statement of attainment means they have:
  - the core competencies required by industry,
    - regardless of the training provider,
  - able to be enhanced by organisation-specific professional development as needed by the employer
- Competitive edge for individuals in the job market with:
  - nationally recognised qualifications; or
  - statements of attainment.

MDCI Sector

The Mining, Drilling and Civil Infrastructure (MDCI) Sector:

- Australia's largest sector, employing approximately 370,000 nationally
- Nationally recognised training is housed within the Resources and Infrastructure Industry (RII) Training Package
  - Intent to provide a clear, structured pathway to support development of the MDCI workforce.

MDCI sector – key trends

- Key trends impacting the MDCI sector:
  - Increased demand for workforce agility, and the ability to move between sectors and industries
  - Increased investment in the infrastructure industry from the Australian government, leading to increased demand for civil infrastructure skills
  - Emerging technology, impacting on ways of working
  - Increase safety focus to ensure the safety of workers
  - The need to support the development of managerial skills as workers progress into leadership roles.

Employment and learner enrolments

Note: excludes all enrolments in Certificate I and II qualifications

How the (new) VET Governance system works

Industry Reference Committees

- Guided by the IRC Operating Framework
- Gather intelligence for training package development and review
- Oversight the development and review of :
  - training packages in line with AISC requirements
  - the IRC work plan, advising who to consult and the type of information to include
- Report, through SSO, to the AISC on progress of its work
- Promote the use of VET in the sectors they represent.

Metalliferous, Drilling and Extractive IRCs

- Formed from the previous SkillsDMC Industry Skills Council
- Tripartite representation:
  - Skills Support Organisation - PWC
- Required to review **all** UoC's within four years
  - AISC wish to reduce the number of UoC's
  - Reduce overlaps / repetition where possible
- Endorse Skill Sets wherever possible.

DMIRS and IRC's

- January 2017: DMIRS invited by AISC to contribute to three Mining, Drilling and Civil Infrastructure (MDCI) IRC's:
  - Drilling
  - Extractive
  - Metalliferous Mining
- May 2017: invited to contribute to a review of WHS qualifications in the Business Services Training Package
  - Project 1G

Training packages

- Consist of:
  - UoC's specifying standards of workplace performance
  - assessment requirements (for each UoC)
  - packaging rules for qualifications
- Do not prescribe how an individual should be trained
- RTO use training packages to design curriculum and/or assessment methods:
  - that assist individuals to gain and/or demonstrate they have acquired requisite skills and knowledge.

MDCI – RII 2015 Training package

RII Training package (Release 2.0) endorsed 1/12/2015

792 UoC's in the current RII package

MDCI and Cross-sector projects

Drilling IRC – Sector overview

- Includes both onshore and offshore drilling in oil and gas, as well as drilling in mineral exploration, geothermal, water well, civil infrastructure and agriculture
- Multidisciplinary industry – shares core skills with other industries
- Large number of small employers (mostly contractors)
- Six large incumbents with over 200 employees each
- Currently a skills shortage to meet rising demand
- Future growth underpinned by major LNG projects.

Drilling IRC – Contentious issues

- UoCs related to off-shore drilling are not being utilised by industry – due to a preference to adopting international standards
- UoCs relating to out-dated drilling methods (e.g. Cable tool drilling) need to be deleted
- UoCs need to be created and/or updated to cater for technological factors (e.g. use of drones, remote operation etc)
- Drilling "mechanics" of different drilling methods are similar, however UoCs need to be updated to reflect these methods and technological advancements.

Extractive (Quarrying) IRC – Sector overview

- Focuses on extraction of raw materials used in building and construction
- Quarry sites are generally located close to major sites of building and construction (both mining and civil)
- Large proportion of small operators in the market
- Employment in this sector has remained steady from 2007
- Success of this sector is heavily dependant on the performance of the building and construction industries.

Extractive (Quarrying) IRC – Contentious issues

- Given the relatively small size of many extractive industries, the VOC process can be ad-hoc at best
  - Many sites don't have in-house training
  - New ways of demonstrating competencies with the use of technology?
- Lack of RTOs delivering the Diploma and Advanced Diploma of Surface Extraction Operations
  - Due to the lack of demand the IRC is considering deleting these qualifications.

Metalliferous IRC: Interesting fact

Metalliferous IRC: Pre-existing projects

Metalliferous IRC: MDCI survey responses

1. Common Skills:
   - 66% said WHS was the most important skill for workers;
   - 40% said this needs to be improved …
2. Emergency Response and Rescue:
   - Only 46% said ERR training effectively catered to needs.

MDCI Meeting Pre-reading (April 2018, Page 15)

Metalliferous IRC: Major project timeline

Contentious issues

- Lack of clarity exists around the distinction between:
  - UoC's relating to high risk work; and
  - granting a licence to perform them, which is required to comply with Model WHS laws
- 75 UoC's possibly duplicate High Risk Work License competencies in Construction package:
  - e.g. CPCCLDG3001A - Licence to perform dogging versus RIIHAN208D - Perform dogging;
  - Case for removal failed to gain support.

Contentious issues

- Supervision project case for change:
  - Failed to attract support due to lack of consultation
- Harmonising experience for assessors:
  - Three years for Drilling, Coal and Extractive;
  - Five years for Metalliferous and Civil Construction;
  - Likely to be three years, but experience must be current.

Metalliferous IRC: New projects

- Skill sets for the following roles will be created to meet the needs of industry to train people:
  - Surface ventilation technicians;
  - Underground ventilation technicians; and
  - Surface ventilation officers

MDCI Industry Skills Forecast and Proposed Schedule of Work (May 2018, Page 30)

- Skill sets will be comprised of the listed units:
  - We will review the content of these units to ensure they are updated to meet the needs of industry stakeholders.

New projects: Surface ventilation technician

UoC	Title
RIIEGS301D	Operate and maintain instruments and field equipment
RIIENV301D	Conduct atmospheric monitoring
RIISTD302D	Process data and maintain accurate records
RIICCM201D	Carry out measurements and calculations

New projects: Underground ventilation technician

UoC	Title
Same units as Surface Ventilation Technician, with the addition of:	
RIIMSM307	Install and maintain ventilation systems and equipment • currently in the Small Mining project; • the "install" component is likely to be reduced or removed.

New projects: Surface ventilation officer

UoC	Title
RIIWHS404D	Implement and monitor health and hygiene management systems • included in the Exploration Project to review
BSBWHS409	Assist with workplace monitoring processes • currently under review by WHS working group *; • will import the unit from the BSB package: • will align with the revised DMIRS HHMP strategy

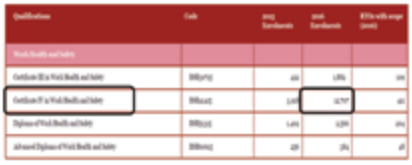
Metalliferous IRC: Key driver - WHS

- Key driver – to align with the WHS Body of Knowledge
- Industry consultation identified deficiencies:
  - Conditions of assessment
    - poorly defined;
  - Required knowledge and skills
    - inconsistent and inappropriate;
  - Qualification packaging
    - allowing minimal WHS content in qualifications
- Conclusion: the Qualifications are not "fit for purpose"

WHS working group: Participant feedback

WHS working group: Project 1G

WHS enrollment data



WHS working group: Stakeholder feedback

Who have we talked to?

WHS working group: Response

Proposed changes

WHS working group: Progress to date

- Certificate III and Advanced Diploma have been retained
- Duplication or overlaps within qualifications reduced:
  - 503 and 504 (risk management) have been combined
- Emergency Response units re-aligned:
  - PUAWER001B removed from Certificate III
- Descriptors aligned with AQF accountabilities:
  - Certificate IV:
    - "Contribute to implementing and maintaining"
  - Diploma:
    - "Manage" or "Develop"

WHS working group: Contentious issues

- Packaging rules do not align with similar qualifications:
  - 10 UoC's for Certificate IV and 11 for Diploma;
  - 14 or 15 common for other qualifications.
- Volume of learning
- Safe systems of work v safety management systems:
  - Certificate IV v Diploma
- Is injury management core or non-essential?
- Contractor management a core UoC?

WHS working group: 4 New UoC's

UoC	Title
BSBWHS512	Contribute to the management of work-related psychological health and safety
BSBWHS306	Participate in the identification and control of hazardous materials and substances
BSBWHS421	Identify, assess and control hazardous materials and substances
BSBWHS511	Manage hazardous materials and substances

The (new) WHS Act: Safety specialists

Other reforms

- Include a specific duty of care on the providers of workplace health and safety advice, services or products

For consideration by the Minister.

The impacts on the safety profession could be profound:

- Are your safety personnel aware of this change?
- Where are you getting your WHS advice from?
- Are you satisfied that those who provide WHS advice to you are competent?

Verification of competency

- What is it?
  - Employers and Registered Managers have a duty to ensure employees conducting work (especially for high risk work licences) are competent.
- What is a competent person?
  - Person who is appointed or designated by the employer to perform specified duties which the person is qualified to perform by:
    - Knowledge
    - Training
    - Experience

Verification of competency

VOC should be evidence based and verified before work commences

- How is it done?
  - Recognition of prior learning (RPL)
  - On-site recognition of current competency (RCC)
  - Site training and development program.

A reminder…

MSIR 4:13 (1) (b)

4.13. Induction and training of employees

(1) Each responsible person at a mine must ensure that every employee is:

b. assessed before commencing work at the mine to ensure that the employee is *competent* to perform the tasks he or she will be assigned and to operate any plant and equipment the employee will be required to operate.

The way forward?

- Can the VOC process be made more effective due to technological advancements?
  - E.g. electronic log books
- Transferability: inter-company "licence to operate".

Conclusion

- National competencies are currently under review, to make them fit-for-purpose, and to meet the needs to both participants and industry
- DMIRS are active participants in the MDCI IRCs to help drive for best outcomes.
- WHS Project: …
- VOCs: are you satisfied that your site is meeting the intent of MSIR 4:13 (1) (b)?

Update on the Mines Safety Roadshow

Amy Douglas-Martens

2018 Mines Safety Roadshow

Safety videos

Mines Safety Roadshow showcases three new videos:

- A day in the life of a Safety and Health Representative
- Safety representative perspective: A day in the life of a Supervisor
- Issuing and receiving a provisional improvement notice

Coming to a location near you

Who should attend?

Safety and health representatives, safety committee members, supervisors and others responsible for safety and health are encouraged to attend.

This is a free event, however bookings are essential.

Register online at www.starsevents.com.au/mar2018

Closing remarks

Andrew Chaplyn

Some of the attendees at the 2018 Registered Managers Forum

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Government of **Western Australia**
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