

# A practicable risk-based approach to RS22 implementation and ongoing compliance

CMSHAC 'Response to Recognised Standard 22 Industry Forum'

Facilitated by Anthony Beasley

# Why does RS22 exist?



Department of  
Natural Resources and Mines

Ref 0001645

29 May 2013

## BY EMAIL: Letter to all coal SSEs

Dear SSE

### Subject: Point of Clarification

At the recent SSE meeting organised by the QRC in Emerald on 5 April and which I attended, I answered a number of questions raised and one of those was with regard to s56 of the *Coal Mining Safety and Health Act 1999* (the Act) and as a consequence what would then be required under s55 of the Act. Specifically I was referring to what constituted "competent".

s56(a) of the Act clearly states that a SSE must not assign the tasks of a supervisor unless the person "is competent to perform the task assigned". My main point was that if there is industry developed competency modules/units (national coal competencies as administered by Skills DMC) directed to a task then it would be expected that the "appointed supervisor" would have those competencies and that those competencies held by the supervisor would be included in the s55 management structure.

I further stated that based on the BBRA (Broad Brush Risk Assessment) that should have been conducted at each operation there would have been a number of hazards identified and given that almost every RA (risk assessment) I have ever viewed has as one of the controls "competent people", I would also expect to see in the management structure required under s55 of the Act a person/s that have the competency to address those hazards. In other words, either a statutory certificate or an industry developed competency addressing that hazard.

One of the attendees then made reference to a coroner's recommendation following a fatality at an open cut where it was claimed that a recommendation was that experience alone was enough. I questioned that as I doubted the veracity of the claim but given I was not in full possession of the facts I demurred. I have subsequently

checked the facts of this matter by reviewing the recommendation following that tragic event and discussing the matter with the counsel assisting and one of the reviewers.

The matter was in fact heard under the Mining Warden's Court before the demise of that court. The fatal incident occurred at Jellinbah on 15 March 2000 and detail of the incident and findings can be found at <http://mines.industry.qld.gov.au/safety-and-health/Christopher-I.EE.htm>. You will note that there are a number of recommendations and I have edited to include only those that address training or competency:

- *The Department of Mines and Energy is to establish and implement a system to allow the recording and reviewing of approved training schemes throughout the industry.*
- *All mines to review current management systems to ensure compliance with the current legislation and the Chief Inspector's requirements for training. This must include all on site authorisations.*
- *Mines are to ensure where loads are required to be lifted fit for purpose lifting equipment and machinery must be used. Risk management techniques and reference to all relevant standards are being followed. (I would suggest RS 11 applies here)*
- *Personnel must apply hazard management skills while performing all tasks. (Competency?)*

You will be aware that this incident was at the transition of the old prescriptive legislation to the new "risk based" legislation and some of the recommendations have been subsumed by the new legislation.

On reviewing those findings I then undertook to review other recommendations made either by the Mining Warden or the Coroner and I present the following for your consideration:

#### Coronial Inquiry - Hennessy 7/8/05 Foxleigh Mine - Shane Davis:

- Recommendation Number: 2.1: That Senior Site Executives of coal mines be required to have a competency such as MNCG1107A 'Establish and Maintain the Mine Occupational Health and Safety Management System'.
- Recommendation Number: 2.2 The Safety and Health Advisory Council consider the range of competencies required for Supervisors

*Findings and recommendations of reviewers and mining warden following an inquiry into fatal injuries received by Trevor George Domrow at Newhill Colliery on 25 March 1997 Warden's Court of Queensland Brisbane 28-29 October 1997.*

- All personnel must receive competency based training to implement the requirements of the strata management plans.

*Findings and recommendations of reviewers and mining warden following an inquiry into fatal injuries received by Gary John Wilson at Laleham No1 Colliery on 5 November 1996 Warden's Court 2-3 September 1997.*

- Competency based training should include some minimum time based component that is clearly indicated in training records.

The above list is by no means exhaustive and if you go back further in time nearly all major disasters and incidents strongly recommend the further training and higher levels of competency for all and "supervisors" in particular. As stated on the day, you would be well served to ensure you can demonstrate that all appointed supervisors are indeed competent to perform the tasks for which they are assigned and that most definitely includes any competence package as developed by the industry and issued by Skills DMC. Those competencies held should then be clearly set down in your s55 Management Structure. A gap analysis is then required to ensure that all identified hazards have a person duly appointed with the appropriate competency and skills to manage that hazard and to ensure risk is mitigated.

Should you have any questions I can be contacted on 3199 8004 (please note the new direct line).

Yours sincerely

Gavin Taylor  
Chief Inspector of Coal Mines

c.c Stewart Bell  
Paul Harrison  
All coal inspectors

# Approach

By working with 12 different mines, we believe that the RS22 application process adopted by coal mine sites has varied in the interpretation, implementation and ongoing compliance, with challenges and uncertainty around:

- ❑ Distilling the **BBRA into Material Unwanted Events & 'threshold'** levels.
- ❑ Utilisation of **Subject Matter Experts** to assist with risk responsibilities.
- ❑ Clarification regarding **roles required in the Management Structure**.
- ❑ Identification of **RII units appropriate to MUEs** and what to do when these **do not exist**.
- ❑ **Consistency in reporting** to RSHQ re Management Structure.
- ❑ **Monitoring of compliance** at site and group level.
- ❑ The requirement and sourcing of RTOs / SMEs to provide training and **assessment using and not using RII units**; and
- ❑ How to treat **absences, succession planning and contractor management** implications.

# Implications of the Intent

**1.** The Management Structure is established to support the SHMS and the Risks identified in the BBRA.

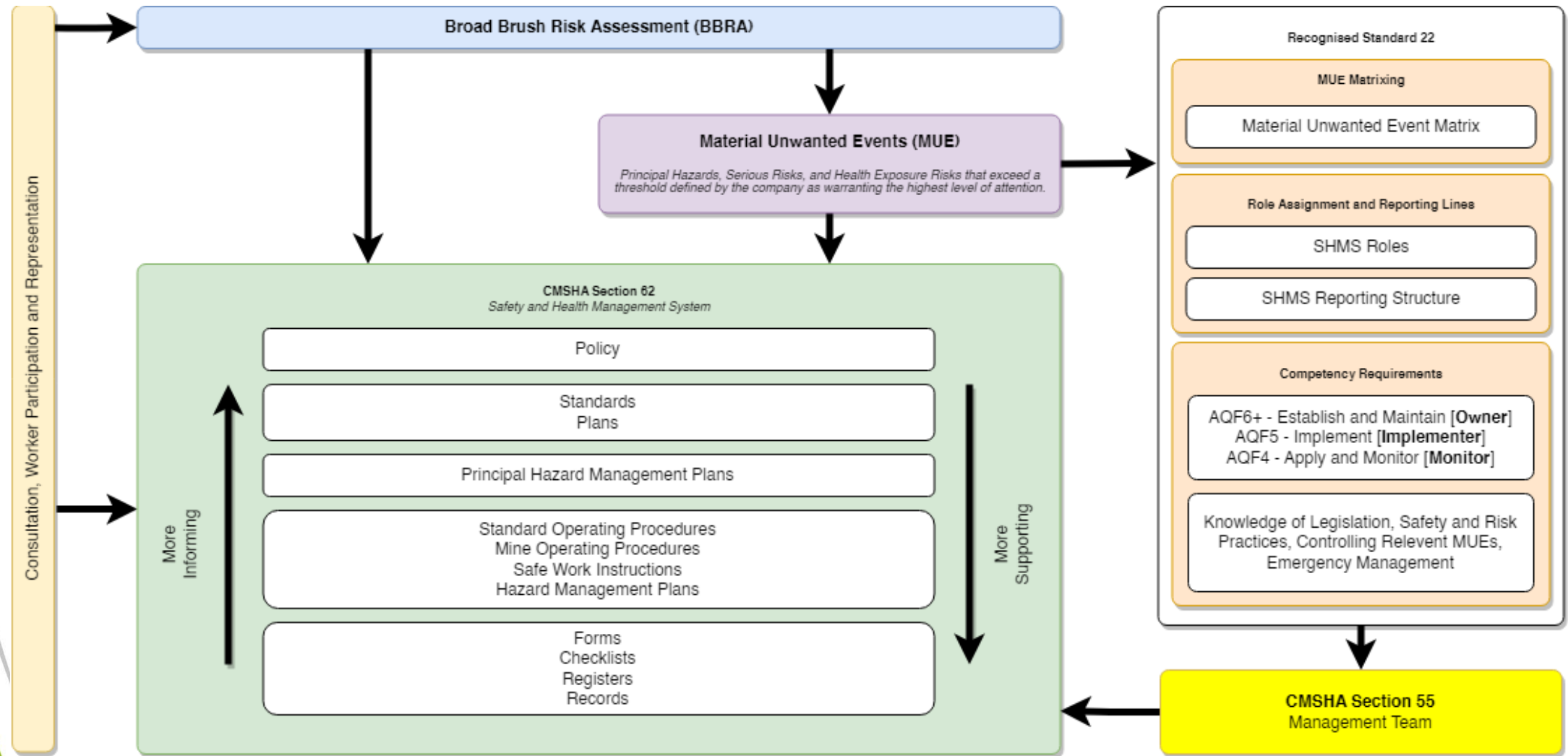
**2.** Each position on the Management Structure has unique responsibilities and therefore unique competency and experience requirements.

- 1.** SSEs are required to develop a CMSHA s.55 Management Structure for the development and implementation of the SHMS.
- 2.** SSEs obligation to determine the competency requirements of positions delegated responsibility under the SHMS and to document those competencies in the Management Structure to ensure operations are at an acceptable level of risk.
- 3.** The competency requirements must be relevant to the risks at the mine and ensure the development and implementation of the SHMS.
- 4.** The absence of a competency prescribed by the Act, Regulations or by the Coal Mining Safety and Health Advisory Committee (CMSHAC) does not mean that *no competency* is required. The determination of responsibilities and competencies for the safety of persons at the mine are the obligation of the SSE for the mine.
- 5.** Must maintain currency and compliance.

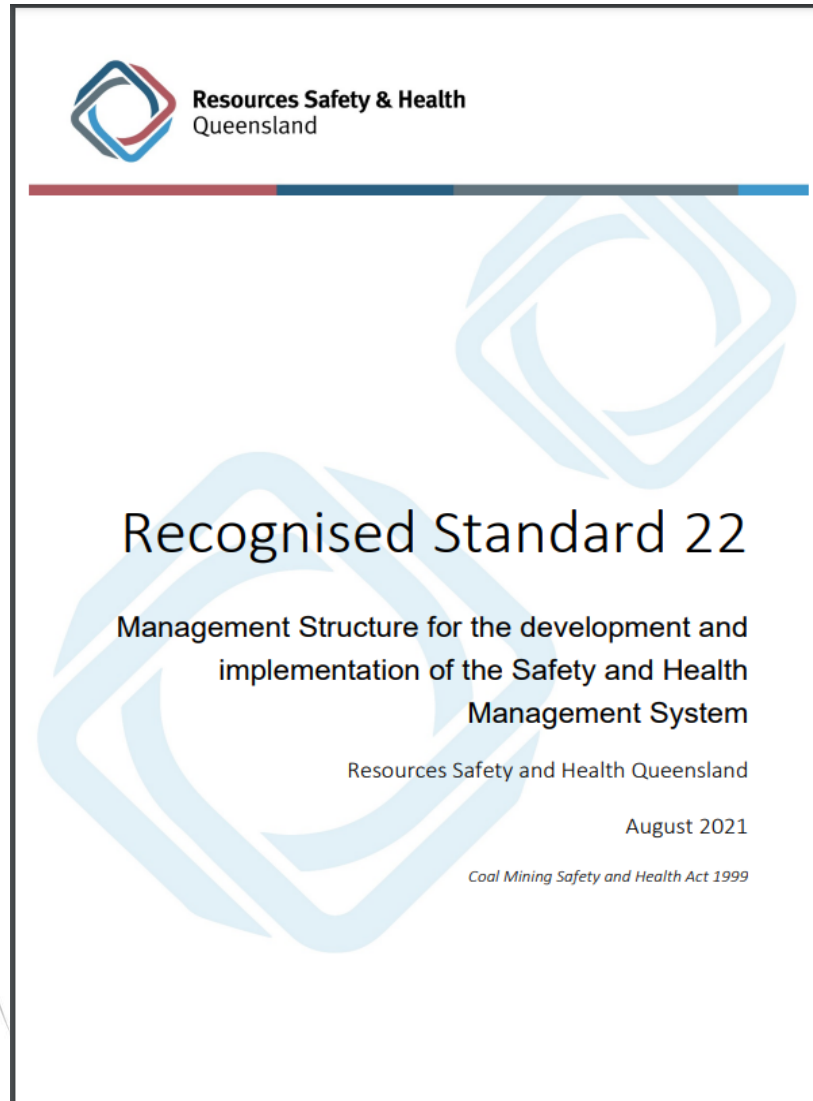
**3.** Not just statutory (CMSHAC competencies). The SSE must determine appropriate competencies for all roles to address each Material Unwanted Event (MUE), and then how to gain & determine competence.

**4.** Each mine has unique risks, and therefore unique Mgt Structure and competency requirements... then add in contractors, absences and succession planning.

# High Level Overview of RS22 / SHMS Context



# General Approach to RS22 Implementation



- 1. Distill the BBRA**  
Identify Material Unwanted Events (MUEs) for the Management Structure).
- 2. Develop MUE matrix & assign SHMS roles**  
Risk Owner, Control Implementer and Control Monitor. Consider Contractors and Succession Planning needs.
- 3. Competence and Training**  
RII units, their intent, meaning and the misalignment (of some) with the AQF framework. Determination of competence.
- 4. Take a Practicable Approach to Competence**  
“Diligence over Negligence”.
- 5. Ongoing Compliance, Maintenance and Flexibility**

# Step 1. Distil the BBRA

Undertake the Broad-Brush Risk Assessment (BBRA) to identify Multiple Fatality Hazards, Serious Risks (Single Fatality and Serious Harm events) and Health Exposure risks.

Apply the ICMM term '**Material Unwanted Event (MUE)**' defined as *an unwanted event where the potential or real consequence exceeds a threshold defined by the company as warranting the highest level of attention (e.g., a high-level health or safety impact).*

Each MUE needs a responsible person – these people form the basis of the Section 55 Management Structure.

Recognised Standard 22				ICMM	Practicable Approach
Hierarchy	Description of Position	Competency Level Australian Qualification Framework Level	SHMS (Element) Role	ICMM	Risk Responsibility Role
Senior	Manager	AQF 6+ (Units from Adv Dip and above)	Establish (Develop) and Maintain	MUE Owner	<b>RISK OWNER</b>
Supervisory	Superintendent	AQF 5 (Diploma Units)	Implement	Critical Control Owner	<b>CONTROL IMPLEMENTER</b>
	Supervisor	AQF 4 (Certificate IV Units)	Apply and Monitor	Verification Activity Owner	<b>CONTROL MONITOR</b>

## Step 2. Develop the MUE Matrix (Risk & Role)

- ❑ Management Structure to align with individual MUE risk responsibilities.
- ❑ Cascading approach to consultation with the SSE, then the **Risk Owners**, the **Control Implementers** and finally the **Control Monitors**.
- ❑ **Review the site Management Structure** as per CMSH Act section 55.
- ❑ Consider **contractors, relief and succession planning**.

Overview **Step 1 - Setup** Step 2 - Contractor Management Step 3 - Profiling Management

Material Unwanted Events Roles People **MUE Matrix** Org Chart

Material Unwanted Events Matrix as at 05/07/2023 Show extended matrix  off Format Standard Personnel **Units of Competency** Q Preview Create ↻

Search... Export to Excel

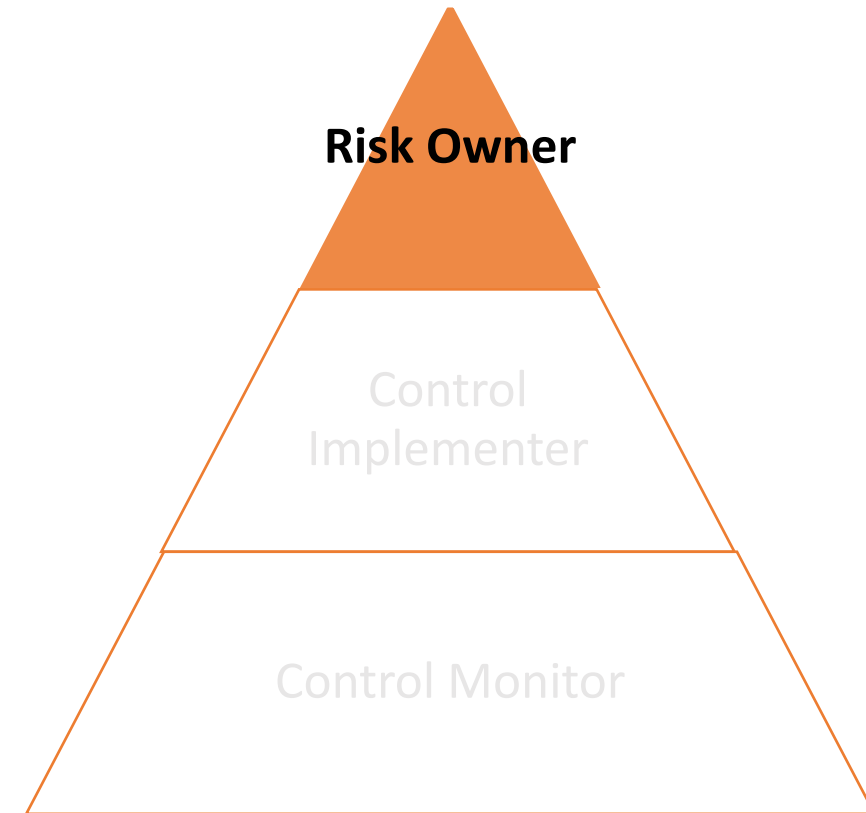
MUE Number	BBRA Risk Number	Name	Primary SHMS Document(s)	Risk Owner Role	Control Implement Roles	Control Monitor Roles / Other Requirements	Units of Competency
101	12, 13	Vehicle Interaction	PHMP-001 Principle Hazard Management Plan Traffic	Contracts Manager	CHPP Manager	Open Cut Examiner (OCE) CHPP Operations Engineer	<b>Risk Owner</b> ROAD_SAFETY - Mine Haul Road Safety  <b>Control Implementer</b> RIMPO502D - Manage the interaction of heavy and light vehicles and mining equipment  <b>Control Monitor</b> RIMPO403D - Monitor interaction of heavy and light vehicles and mining equipment
102	15	Explosives	PHMP-003 Principle Hazard Management Plan Explosives	Contracts Manager	Technical Services Superintendent	Open Cut Examiner (OCE)	<b>Risk Owner</b> RIIBLA602E - Establish and maintain explosives safety and security management systems  <b>Control Implementer</b> RIIBLA401E - Manage blasting operations RIIBLA403 - Design blasts  <b>Control Monitor</b> RIIBLA401E - Manage blasting operations RIIBLA403 - Design blasts
103	CCM052, CCM053	Geotechnical	PHMP-002 Principle Hazard Management Plan Geotechnical	Technical Services Manager		Open Cut Examiner (OCE)	<b>Risk Owner</b> RIMEX602D - Establish and maintain surface mining ground control and slope stability systems RPEQ Geotechnical/Civil - AQF6 + Geotech OR Civil Engineering (RPEQ)  <b>Control Implementer</b> RIMEX504 - Implement the ground control management plan  <b>Control Monitor</b> RIMEX407 - Apply and monitor the ground control



# SHMS Role – Risk Owner

## Typically:

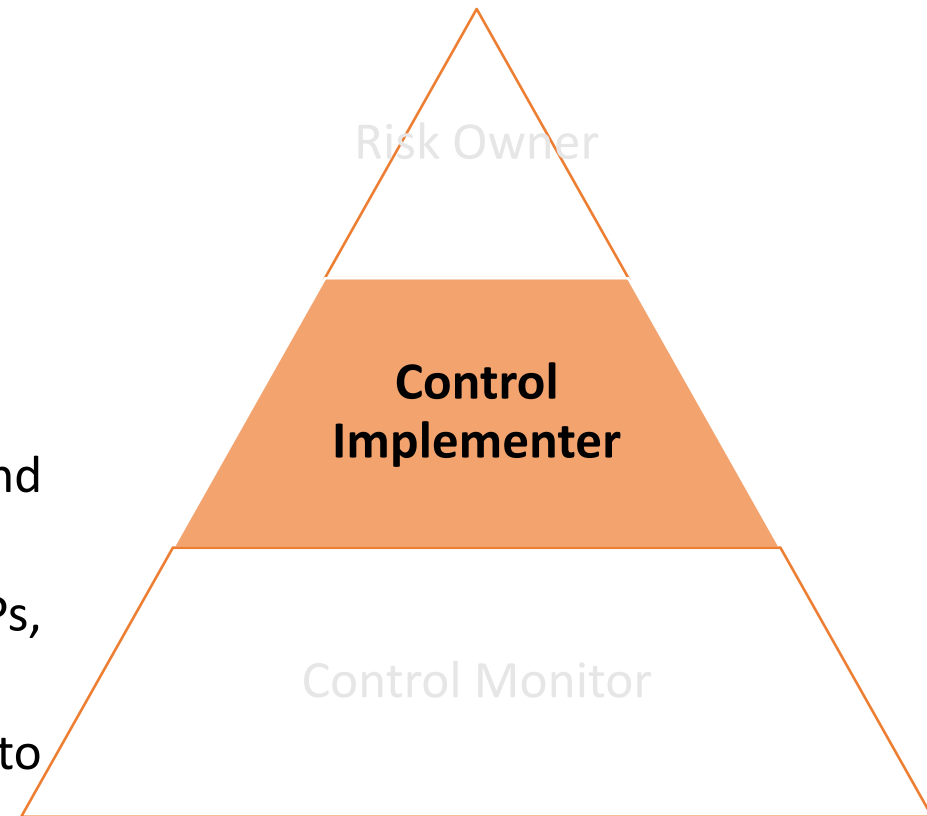
- ❑ Not the SSE
- ❑ One risk owner per MUE.
- ❑ Manager/superintendent senior positions.
- ❑ Responsible for the development of the SHMS related content (e.g., PHMPs and SOPs).
- ❑ Responsible for reviewing, identifying, managing, monitoring, and mitigating each risk in their area of responsibility.
- ❑ Knowledge to remain current regarding the risk.
- ❑ Review reports from Control Implementers.
- ❑ Ensure that control implementers and control monitors are adequately resourced to do their job.
- ❑ Attend broad brush and principal hazard risk assessments (and similar), Bow Ties and incident reviews.



# SHMS Role – Control Implementer

## Typically:

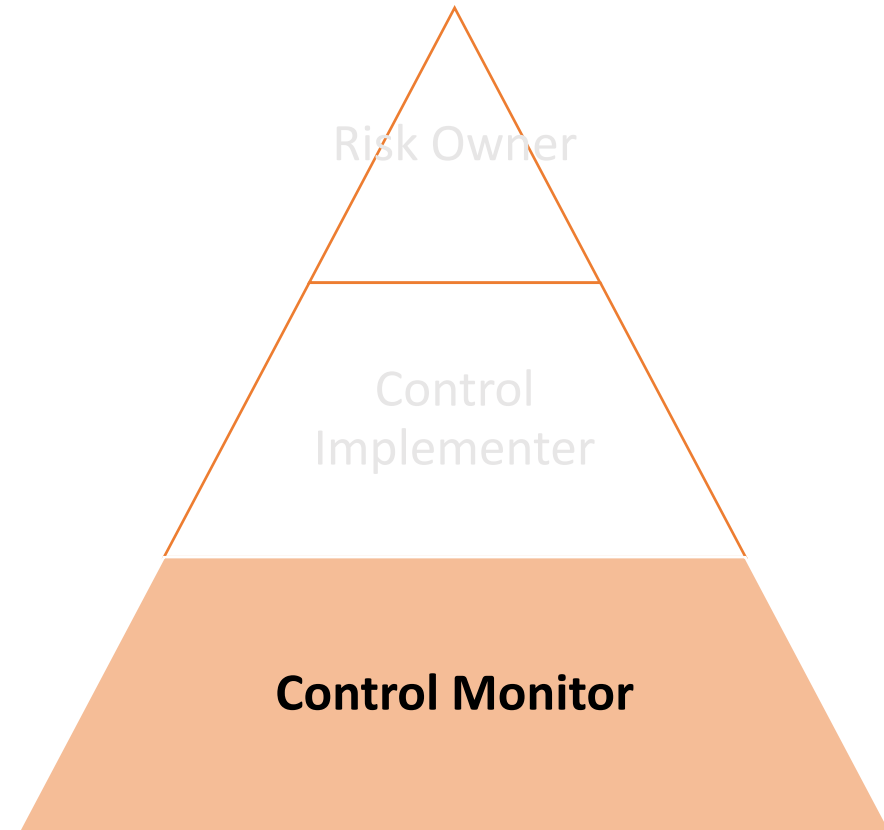
- ❑ Several Control Implementers across the mine.
- ❑ Mixed across department domains.
- ❑ Superintendent/Coordinator level supervisory positions.
- ❑ Are a Subject Matter Expert
- ❑ Undertake Critical Control Verification (CCV) activities.
- ❑ Active participation in risk assessments.
- ❑ Undertake verification activities to review approved and proposed controls for compliance and effectiveness.
- ❑ Arrange the scheduled review of risk assessments, SOPs, MOPs and HMPs.
- ❑ Ensure that CMWs are trained in risk control measures to the MUEs.
- ❑ Ensure that Control Monitors are adequately resourced and supported.
- ❑ Attend risk assessments, inspections, meetings and undertake document control/reviews.



# SHMS Role – Control Monitor

## Typically:

- ❑ Numerous Control Monitors (& Appliers) across the mine.
- ❑ Are Supervisory positions.
- ❑ Responsible for applying and monitoring the risk controls.
- ❑ Gather and review verification activities.
- ❑ Observe controls being applied firsthand.
- ❑ Confirm that requirements regarding controls are being applied correctly, completely, and consistently by all CMWs.
- ❑ Compare the results of monitoring activity to expectations.
- ❑ Initiate actions to correct controls being applied.
- ❑ Submit verification summary reports to the Control Implementer/s.



# Integrating Contractors into RS22

## **We believe Contractor Engagement remains a challenge that is often not well considered:**

- ❑ Contractors usually are brought to site by a 'Contract Holder' – who holds commercial / budgetary responsibility for their performance and have a 'Contract Supervisor' who they meet with daily (each site may have different terminology for these roles).
- ❑ The work performed by Contractors may be a different scope than the Contract Holder / Supervisor normally has responsibility for... how does this translate in terms of MUE's RO/CI/CM awareness and suitability.
- ❑ WHO is accountable for the SHMS roles associated with these Contractors?

## Step 3. Competence and Training

CMSHA section 12 '*Meaning of competence*' plus RS11 provide the pathway for RS22 skilling. Our approach has been:

1. **Determine** technical skills and levels required to support SHMS/risk management responsibilities.
2. **Propose** skills and experience requirements to the SSE for endorsement.
3. **Identify** practicable methods for attaining the skills and propose to the SSE for endorsement.
4. **Coordinate** the attainment of skills, gathering of verifiable evidence and tracking to closure.

Although there are many units of competency (UoCs), that exist and have been developed to meet specific applications within our sector (RIIs), there exists the challenge of sourcing an RTO to be able to provide training and/or assessment against the full suite of units.

Our research of more than **340 units of competency** and **over 120 RTOs** has identified a **significant gap** in the range of units between AQF 4 - 6 that would be considered as appropriate across the typical MUEs for Open Cut and Underground Mining Operations, plus Construction, Shutdowns, Exploration and other bespoke mining operations.

# Step 4. Practicable Approach to Competence

## **Diligence over Negligence in the approach to determination of competence.**

Our approach uses a combination of the following:

- ❑ Where possible, engaging an RTO that offers a topic targeted **RII UoC** at AQF levels 4, 5 & 6.
- ❑ Where possible, engaging an RTO that offers a **non-RII equivalent** unit that relates to the risk and controls.
- ❑ Engaging with recognised **subject matter expert** organisations (such as an OEM, SIMTARS or AARTC) to run topic specific training targeted to the risk role and level within the Mgt Structure.
- ❑ Undertaking a **Verification of Competency (VOC)** process – typically this can focus on the Practical Skills of a person supported by evidence of undertaking key tasks in the workplace and meeting the principles of evidence requirements as defined by ASQA for RTOs, and RS11.
- ❑ Using the site **SHMS** to complement any, or all the above – putting the training/evidence into direct correlation with the site requirements and combining this **with ‘years of experience’ on-the-job** that directly relates to the risk and controls approach.

These various solutions allow flexibility and require a solid rationale to track and provide an audit trail for the decisions made, as over time, the options available and utilised may change.

# Apply a Hierarchy of Competence

Our approach has been to apply a Hierarchy of Competence now in application at several sites:

## Hierarchy of Competence

1. Accredited Statement of Attainment or Qualification issued by an RTO / University
2. Certificate of competency / License, issued by an Industry Authority (e.g. BOE)
3. Verification of Competency (VoC) + Verification of Experience (VoE) issued by a Subject Matter Expert
4. Time Based Record of Experience (TREx)
5. Non-accredited certificate / 'ticket' or similar issued by an OEM or Subject Matter Expert

Each SSE defines the appropriate minimum hierarchy they accept in the short and long-term.

**For example:** No's 1 to 5 are likely acceptable when a site is transitioning into RS22 compliance, however within 6 months the SSE may aim for any person to be up to #3 (VoC) as the minimum.

# Step 5. Ongoing Compliance

- ❑ Typically, sites use a Training Management System (TMS) or Learning Management System (LMS) that has a focus on operation skills (AQF2-3) with limited coverage for AQF4-6.
- ❑ Often the trigger to review and re-apply competency requirements are not well established (e.g., when a Mining Supervisor is stepping into a Mining Superintendent role).
- ❑ Need a **single source of truth** for the coordination of ongoing changes to the risk profile and management structure of the site and impact of skilling solutions.

The screenshot displays a software interface for managing roles. A modal window titled "Change Roles" is open, showing the process of changing roles for a person named James Edwards. The modal includes sections for "TEMPORARY LEAVE" with date pickers for "First day of leave" (05/07/2023) and "Last day of leave" (28/07/2023), and a "Site Senior Executive (SSE)" section with a "Relieved by" dropdown menu. Below these are sections for "EMPLOYEE OFFBO" and "PROMOTION (CHANGE ROLE)" with role selection options. The background shows a "People" table with columns for "First Name" and "Last Name", and a "Roles for James Edwards" table with columns for "Role", "From Date", "To Date", "Appointment Type", and "Letter of Appointment".

First Name	Last Name
Name	Name
Name	Name
Name	Name
Name	Name
Name	Name
Name	Name

Role	From Date	To Date	Appointment Type	Letter of Appointment
Site Senior Executive (SSE)	26 Jun 2023		Permanent	Preview draft



# Integration with site LMS / Training Mgt Systems

Any solution related to RS22 requires integration with existing systems that track training and competency requirements. This example show integration between RS22 and *LAAMP* (LMS).

The screenshot displays the 'My Competency Expert' interface for a 'SAMPLE MINE SITE'. The navigation bar includes 'Back to Olive Downs', the site name, and a user profile icon. Below the navigation bar, a progress indicator shows four steps: 'STEP 1: Select LAAMP Data File', 'STEP 2: People', 'STEP 3: Units of Competency' (highlighted), and 'STEP 4: Commit changes'.

The main content area is divided into three sections:

- MCE LAAMP Unit Of Competency Matching:** A table with columns for MCE Code, MCE Name, and Has LAAMP mapping?. The 'Electrical Worker' row is highlighted and has a checkmark in the 'Has LAAMP mapping?' column.
- Existing mappings with LAAMP:** A list of LAAMP names, with 'Electrical Work Licence' listed.
- Possible mappings with LAAMP:** A table with columns for LAAMP Name, # people, and Rank. It lists various ODC (Occupational Development Certificate) codes and their corresponding counts and ranks.

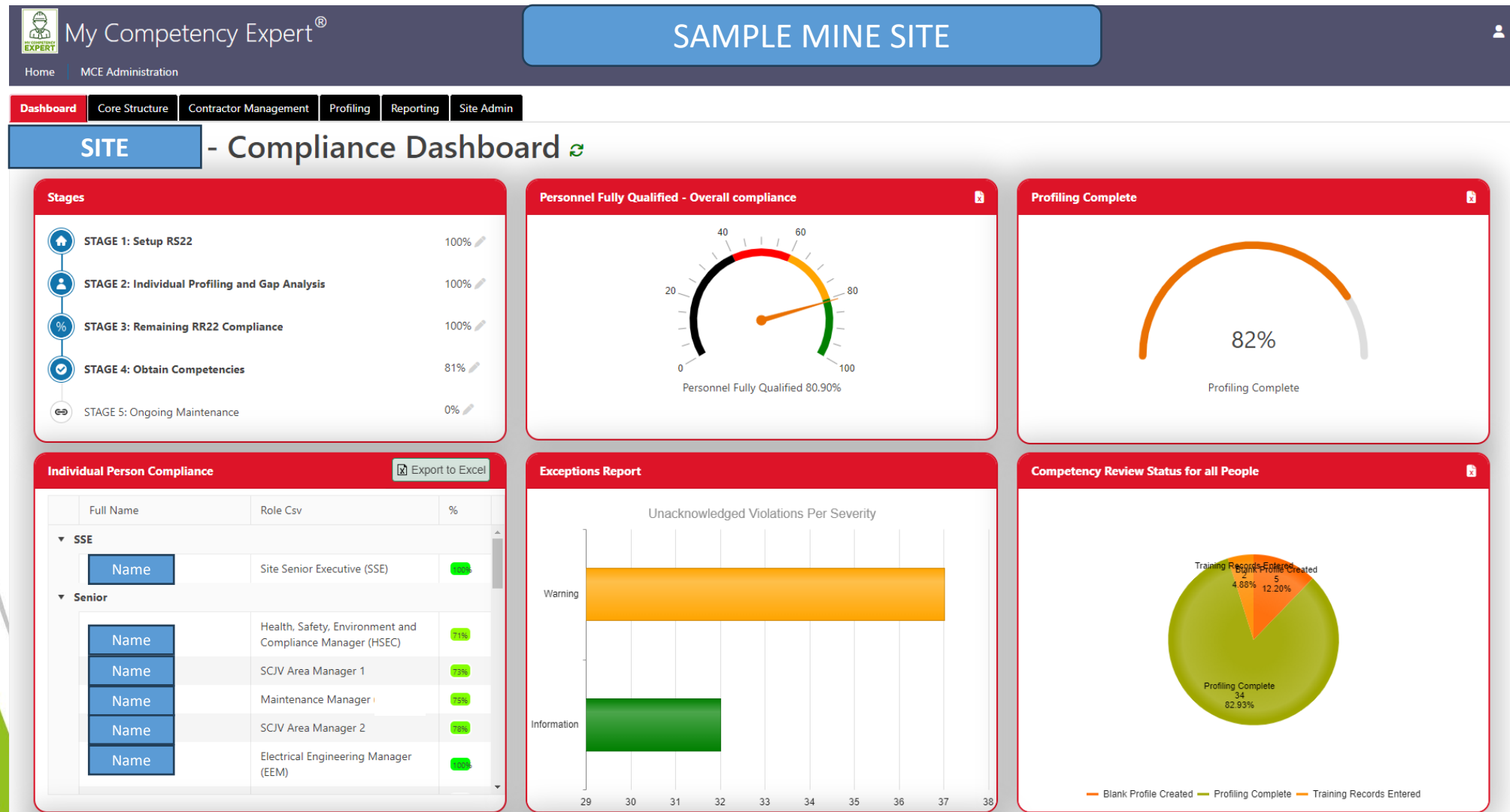
The bottom section, 'Possible mappings with LAAMP inspired by other sites...', is partially visible.

MCE Code	MCE Name	Has LAAMP mapping?
Elec_Eng	Electrical Engineering B. Degree	
Electrical Worker	Electrical Worker's License	✓
Mine_Construct_3	3 Years operating mine or construction project experience	
Mine_Construct_4	4 Years operating mine or construction project experience	
Mine_Construct_5	5 Years operating mine or construction project experience	

LAAMP Name	# people	Rank
ODC - LI - Restricted Electrical Workers Licence	2	111
ODC - AP - Low Voltage Electrical Worker Appointment	7	94
ODC - LI - Electrical Work Licence	22	53
ODC - SOP - 002 - Management in the Event of an Electrical Accident - Assessment	42	36
ODC - SOP - 002 - Management in the Event of an Electrical Accident - PPT	34	36
ODC - SOP - 20 - Access and Test Exposed Electrical Conductors - ASS	35	36
ODC - SOP - 20 - Access and Test Exposed Electrical Conductors - PPT	31	36

# Maintaining currency of compliance

Finger on the pulse by real time maintenance of risk profiles. *Risk + Assurance = Good Governance*



# Reporting for compliance and effective risk management

The screenshot displays the My Competency Expert (MCE) web application interface. At the top left is the MCE logo and the text "My Competency Expert®". Below this are navigation links for "Home" and "MCE Administration". A large blue button labeled "SAMPLE MINE SITE" is positioned on the right side of the header. A horizontal menu below the header contains several tabs: "Dashboard", "Core Structure", "Contractor Management", "Profiling", "Reporting" (which is highlighted in red), and "Site Admin".

Under the "Reporting" tab, there is a sub-section titled "Reports". The main content area is titled "Executive" and contains three report cards:

- Stage 2 Profiling Status Report**: A report for projects in Setup Stage 2 - Profiling & Gap Analysis. It includes a description: "For projects in Setup Stage 2 - Profiling & Gap Analysis. Create a pdf summarising the Profiling Status on first page, then the detail." Below the description are buttons for "Preview", "Download PDF", "Download Word", "Download Excel", "Copy", "Delete", and "Design".
- Mine Site - Management Structure**: A report with a description: "The purpose of this document is to outline a way for a Site Senior Executive (SSE) to develop and maintain a management structure in accordance with the Coal Mining Safety and Health Act 1999 (CMSHA) to ensure the risk from coal mining operations is at an acceptable level. Specifically, it addresses Part 4, Division 2 Management of Coal Mines and Part 4, Division 4 Records and Reporting of the Coal Mining Safety & Health Act 1999 (Qld)." Below the description are buttons for "Preview", "Download PDF", "Download Word", "Download Excel", "Copy", "Delete", and "Design".
- Letter of Appointment \***: A report with a description: "Letter of appointment". Below the description is a "Design" button. A note below the button states: "\*Standard Report".

At the bottom of the interface, there are two buttons: "Add report from library" and "Design new report".

# Reporting for continued compliance

## RECOGNISED STANDARD 22 STATUS REPORT



<b>REPORT DATE</b>	<b>PROJECT NAME</b>	<b>PREPARED BY</b>
October 2023	SAMPLE MINE	JARAH CORPORATE
<b>SITE SENIOR EXECUTIVE</b>	<b>SITE PRIMARY CONTACT</b>	
NAME	NAME 2	

### STATUS SUMMARY

SETUP	Stage 1 Establishment <b>100% (COMPLETE)</b>
	Stage 2 Profiling & Gap Analysis <b>87% (36 out of 41 people completed)</b>
	Stage 3 SHMS Structure & Compliance <b>100% (COMPLETE)</b>
ONGOING	<p><b>Stage 4 – Obtain (and maintain) Competence</b> <b>73% (325 of 448 total)</b></p> <p><b>NOTE:</b> You have chosen for Stage 4 to be undertaken by the Company's own training department. Any completion % reported here may not be up to date, depending on data made available to My Competency Expert. Refer to your training department for the most accurate information.</p>
	<p><b>Stage 5 – Ongoing Maintenance</b> <b>Total Compliance: 63%</b></p>

You are currently at **Stage 4** – A detailed report of progress for this stage is attached.  
Concurrently, you are also progressing **Stage 5** – Weekly meetings are being held.

### RISK AND ISSUE HISTORY

	ISSUE	SUGGESTED ACTION
1	5 People have been added to the Management Structure and profiles created, LAAMP records entered but no interview / follow up on Time-based experience. How to keep Management Structure up to date in a timely manner?	Weekly Meetings, management focus.

### CONCLUSIONS/RECOMMENDATIONS

1. Need to keep Management Structure document, mine record and notification to inspector up to date:
2. We have automated a version of the Management Structure Document – for review.

5 People have been added to the Management Structure and profiles created, LAAMP records entered but no interview / follow up on Time-based experience.

3 New roles have been added and Management Structure competencies for these roles have been determined.

RS22 requires mine record to be updated within 7 days and notified to inspector within 14 days for senior roles or if a role is added or removed – had this been done?

#### New people:

- Name 1
- Name 2
- Name 3
- Name 4
- Name 5

#### New Roles:

- Commissioning Manager
- Electrical Commissioning Supervisor
- Mechanical Supervisor

#### Deleted Roles:

- Civils Supervisor

#### Attached:

1. Level of Compliance (individual persons)
2. Units of Competency (for each person)
3. STD - 01 - Management Structure.pdf – automated document for discussion.

# Good, Bad & Ugly... some of our experience



# The Good

## Typically:

- The alignment requirements between RS22 and the RII's is best in the Underground Coal sector. Such as U/G Coal Mine Manager

		3 <sup>rd</sup> Class Control Monitor	2 <sup>nd</sup> Class Control Implementer	1 <sup>st</sup> Class Risk Owner
RIIERR402E	Apply and monitor underground coal mine emergency preparedness and response systems	X		
RIIERR501E	Implement underground coal mine emergency preparedness and response systems		X	
RIIERR602E	Establish and maintain underground coal mine emergency preparedness and response systems			X
RIIMCU408E	Apply and monitor the spontaneous combustion management plan	X		
RIIMCU501E	Implement the spontaneous combustion management plan		X	
RIIMCU601E	Establish and maintain the spontaneous combustion management plan			X

RIIERR402E - Apply and monitor underground coal mine emergency preparedness and response systems	RIIERR501E - Implement underground coal mine emergency preparedness and response systems	RIIERR602E - Establish and maintain underground coal mine emergency preparedness and response systems
RIIMCU408E - Apply and monitor the spontaneous combustion management plan	RIIMCU501E - Implement the spontaneous combustion management plan	RIIMCU601E - Establish and maintain the spontaneous combustion management plan
RIIMCU403E - Apply and monitor the gas management plan	RIIMCU502E - Implement the gas management plan	RIIMCU602E - Establish and Maintain the gas management system

# The Good

## Typically:

- ❑ Site s.55 Mgt Structure that is maintained with names, competencies and reflects contractors (plus accommodates relief/succession requirements).
- ❑ SSE's that are intimately involved in the development of the RS22 solution – know the MUEs, apply 'risk tolerance' and practicability to determination of competence and maintain currency of the site with RS22.
- ❑ The contextualisation of training programs to reflect the site risk profile and operation... even if this means not meeting the requirement for a Statement of Attainment to be issued (but is supported by rationale)
- ❑ Regular (weekly / fortnightly) review of the Mgt Structure, competencies gained/required during review of CCV related activity (link these to maintain alignment and review schedule).
- ❑ Clarity regarding the value of experience.... The generalised 10 years in 'mining industry' versus, 3 years working with confined space (MUE), Vehicle Interaction (MUE) etc... similar to the OCE / SSE work Experience History required for exam sitting.

# The Good

## Typically:

- ❑ Based on our working with 12 sites, we have identified 50 Material Unwanted Events, 25 are very common, 10 are used by almost every site:
  1. Vehicle Interaction
  2. Electric Shock
  3. Line of Fire / Control of Energy
  4. Working at Heights
  5. Confined Space
  6. Structural Failure
  7. Explosives / Fire
  8. Geotechnical / Strata
  9. Lifting and Cranage
  10. Working near water

Therefore, as an industry we can target these top 10 MUEs to get significant impact in terms of units of competency, definition regarding what experience is suitable at Risk Owner, Control Implementer and Control Monitor levels, common CCV's and how to gain which competencies.



# The Bad

## Typically:

- ❑ An approach by site that experience trumps everything. But the experience isn't defined, OR it has nothing to do with a specific MUE.
- ❑ Poor use of the BBRA.
  - ❑ No link back to a current and relevant BBRA when undertaking RS22 implementation
  - ❑ No rationale of how a BBRA risk is determined "Material"
- ❑ Confusion regarding what to do with RS22?
  - ❑ RS22 just become a standard document, with no reflection of site-specific risks. Value in Corp Guideline / site Protocol.
  - ❑ Level of coordination, similarity and efficiencies across multiple sites within the same organisation
- ❑ Not knowing what the role of a Risk Owner, Control Implementer(Owner) or Control Monitor is
- ❑ The blind belief that some with 'G3' trumps 'G2' in terms of the application of the unit
  - ❑ RIIRIS402E (G2) Carry out the risk management process (**PROCESS**)
  - ❑ RIIRIS601E (G3) Establish and maintain risk management systems (**SYSTEM**)

# The Bad

## Typically:

- ❑ All the 'gaps' in AQF 4, 5, and 6... i.e. no cascade of skills application across these levels within the RII Training Package
- ❑ Misinforming of RII units: AQF4 isn't always "control and monitor", 5 isn't "Implement" and 6 isn't "Establish, develop and maintain". "Manage" – *where does that even come from?*
  - ❑ RIIMPO502D **Manage** the interaction of heavy and light vehicles and mining equipment (BAD)
  - ❑ RIIBLA401E **Manage** blasting operations
- ❑ Very limited coverage of commonly required AQF 4, 5 & 6 RII units by RTOs.
- ❑ Inclusion of RII units into s.55 Mgt Structure requirements with no practicable plan of how to gain
  - ❑ RIIPRM501E Implement, monitor, rectify and report on contracts... is about administration, not SHMS integration – adjust this when delivered to make of relevance

# The Bad

## Confined Space example:

- ❑ BBRA describes this MUE as "*Confined Spaces - Exposure to a hazardous atmosphere when accessing or working in a confined space*"
- ❑ The relevant RII units:
  - ❑ RIIWHS202E Enter and work in confined spaces
  - ❑ RIIWHS401E Supervise work in confined spaces
  - ❑ No AQF 5 for Control Implementer
  - ❑ No AQF 6 for Risk Owner

## Working at Height example:

- ❑ BBRA describes this MUE as "*Fall from heights - Fall from heights >1.8m. Fall from Height - when using ladders steps or walkways*"
- ❑ The relevant RII units:
  - ❑ RIIWHS204E Work safely at heights
  - ❑ No AQF 4 for Control Monitor
  - ❑ No AQF 5 for Control Implementer
  - ❑ No AQF 6 for Risk Owner

Sites find this confusing and apply inconsistent solutions.

# The Ugly

## Typically:

- ❑ Applying the approach that
  - ❑ S1,2,3 & G2 – all supervisors need this.
  - ❑ Superintendents need G3
  - ❑ Other competencies “needed” happen to just be those they already have.
- ❑ Skilling requirements in a Management Structure using grandiose statements like “*Applicable units at AQF level 6 as determined by the SSE and relevant for area of responsibility*” ... but when, how and why?
- ❑ Persons not knowing that they’re a Risk Owner, Control Implementer(Owner) or Control Monitor.

# The Ugly

## Typically:

- ❑ The Oprah approach that everyone gets a jersey to be on the s.55 Management Structure – right down to crews and all roles recognised by CSMHAC competencies leads to over population and confusion of the **Management** as opposed to an **Organisation Structure**.
- ❑ Over-reliance on the site SHMS related training as the basis of determination of competence without mapping to RII units that relate back to MUE requirements.
- ❑ Inability to remain up to date with changes to the Management Structure, RO/CI/CM profiling and skills required/gained requirements.... A moving feast.
- ❑ Reliance on 'years in mining industry' as proof of competence... years doing what? How verified? How mapped to MUE's?

# The Ugly

## The three most common MUE's in Open Cut:

### Vehicle Interaction

AQF LEVEL	UNIT	RTO Option	COMMENTS
AQF4	RIIMPO403	Yes	RTO options exist to obtain
AQF5	RIIMPO502	Implicit scope only	<ul style="list-style-type: none"> <li>Can't get from RTO.</li> <li>Unit appears to have incorrect naming "Manage" should be "Implement"</li> </ul>
AQF6	Nothing	No	Possibly use external course by AARB "Mine Haul Road Safety"

### Explosives

AQF LEVEL	UNIT	RTO Option	COMMENTS
AQF4	RIIBLA401	Yes	<ul style="list-style-type: none"> <li>There are 3 AQF 4 units</li> <li>RIIBLA401 has wrong title "manage" RIIBLA403 is "design"</li> </ul>
AQF5	NOTHING		<ul style="list-style-type: none"> <li>There is no RII AQF5 unit</li> <li>Do we apply one of the 3 x AQF4 or 1 x AQF6 units?</li> </ul>
AQF6	RIIBLA602	No	OK

### Geotech / Strata

AQF LEVEL	UNIT	RTO Option	COMMENTS
AQF4	RIIMEX407	Implicit Only	No current viable RTO option
AQF5	RIIMEX504	Implicit Only	<ul style="list-style-type: none"> <li>No current viable RTO option</li> <li>At least all the unit titles are correct</li> </ul>
AQF6	RIIMEX602	Implicit Only	No current viable RTO option

# In Summary

- ❑ **RS22 makes sense** – it provides a structured approach to protecting the safety and health of persons on site and those impacted by operations.
- ❑ Provides a framework for transportability of people across industry with a greater depth of skills **targeted at Material Unwanted Events and risk related responsibilities.**
- ❑ RII Training Package holds many units of competency that relate to the broad spectrum of roles and skills identified through RS22 profiling – but are not all readily available for delivery. This **requires a well-considered rationale and approach to the training solution;** and equally so, how to maintain the coordination of these training needs around the changes to the Management Structure and Risk Register.
- ❑ Sites require a **practical tool and process to maintain compliance** with RS22 in the face of ongoing Management Structure changes.
- ❑ RS22 is here to stay and should be embraced in a way that **adds value to each site in the ongoing management of risk.**

**Thank you for your time and interest.**

**Q&A**