

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

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Inside looking out

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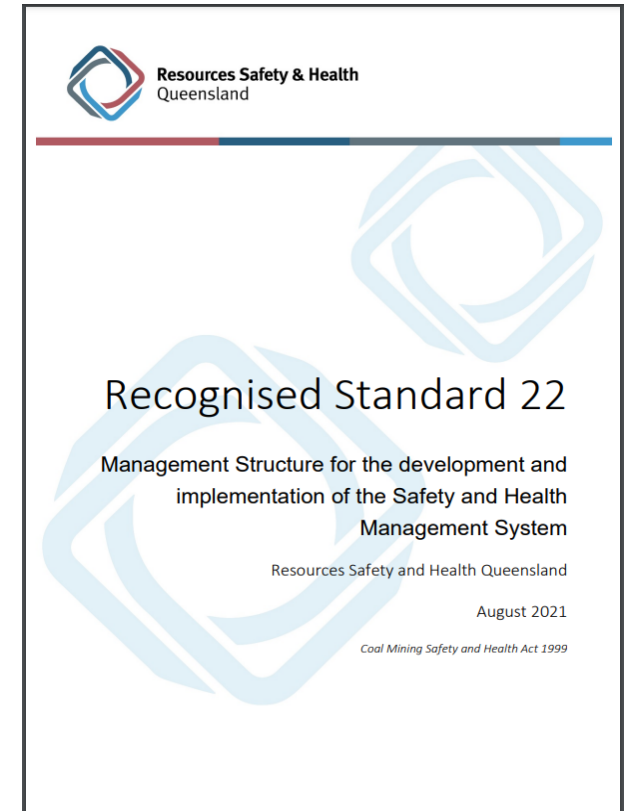




Ambiguity & Approach

By working with 11 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.
- Roles that should and shouldn't be in the Management Structure.
- Identification of RII units of competency appropriate to MUEs and what to do where these do not exist.
- The requirement and sourcing of RTOs / SMEs to provide training & assessment using and not using RII units; and
- How to treat Absences, Succession planning and Contractor Management implications.





Implications of the Intent *(And things you shouldn't do!)*

1. The Management Structure is established to support the SHMS and the Risks identified in the BBRA *(Not the other way around)*.

2. Each position on the Management Structure has unique responsibilities and therefore likely have unique competency requirements *(it's not 1 standard list of competencies for all Supervisors across site)*.

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.

3. This isn't just statutory (CMSHAC competencies). The SSE must determine appropriate competencies for all roles to address each Material Unwanted Event (MUE) *(Supervisors require more than 'S123' and G2)*.

4. Each mine has unique risks, and therefore likely have unique Mgt Structure and competency requirements. *(Cannot simply copy and paste from another site profile)*.



Steps to Approaching RS22 Implementation



Recognised Standard 22

Management Structure for the development and implementation of the Safety and Health Management System

Resources Safety and Health Queensland

August 2021

Coal Mining Safety and Health Act 1999

1. Distil 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.

3. Competence and Training

RII units, their intent, meaning and the misalignment (of some) with the AQF framework.

4. Take a Practicable Approach

“Diligence over Negligence”.

5. Ongoing Compliance



Step 1. Distil the BBRA

RS22 requires a mine site to 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	RISK OWNER
Supervisory	Superintendent	AQF 5 (Diploma Units)	Implement	Critical Control Owner	CONTROL IMPLEMENTER
	Supervisor	AQF 4 (Certificate IV Units)	Apply and Monitor	Verification Activity Owner	CONTROL MONITOR



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.

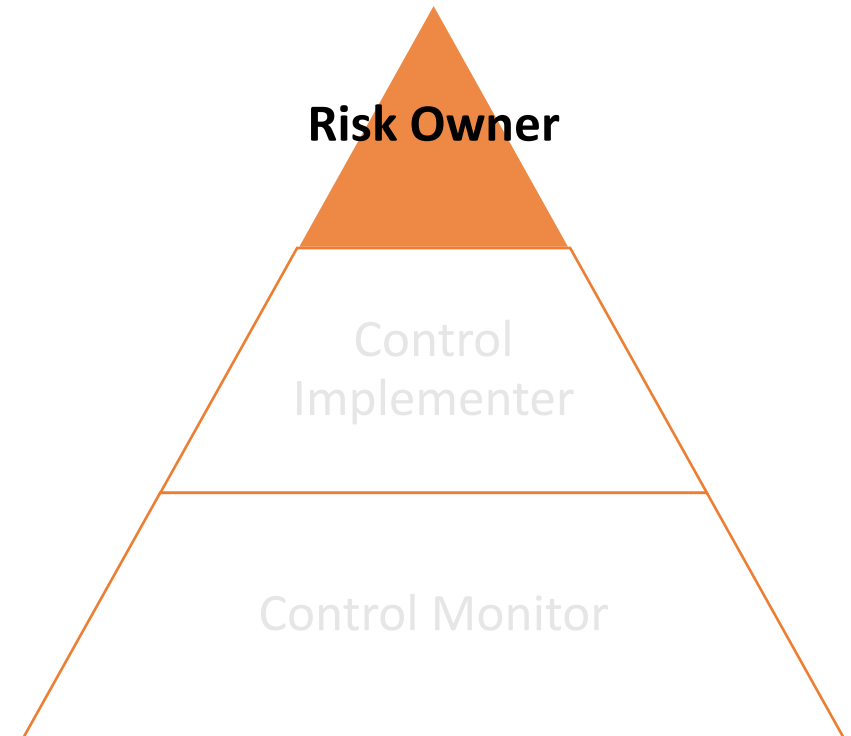
MUE Number	BBRA Risk Number	Name	Primary SHMS Document(s)	Risk Owner Role	Control Implement Roles	Control Monitor Roles / Other Requirements	Units of Competency
101	12, 13	Vehicle Interaction	PHMP-001 Principle Hazard Management Plan Traffic	Contracts Manager	CHPP Manager	Open Cut Examiner (OCE) CHPP Operations Engineer	Risk Owner ROAD_SAFETY - Mine Haul Road Safety Control Implementer RIIMPO502D - Manage the interaction of heavy and light vehicles and mining equipment Control Monitor 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)	Risk Owner RIIBLA602E - Establish and maintain explosives safety and security management systems Control Implementer RIIBLA401E - Manage blasting operations RIIBLA403 - Design blasts Control Monitor 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)	Risk Owner RIMEX602D - Establish and maintain surface mining ground control and slope stability systems RPEQ Geotechnical/Civil - AQF6 + Geotech OR Civil Engineering (RPEQ) Control Implementer RIMEX504 - Implement the ground control management plan Control Monitor RIMEX407 - Apply and monitor the ground control



SHMS Role – Control Owner

Typically:

- 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) and incident reviews.

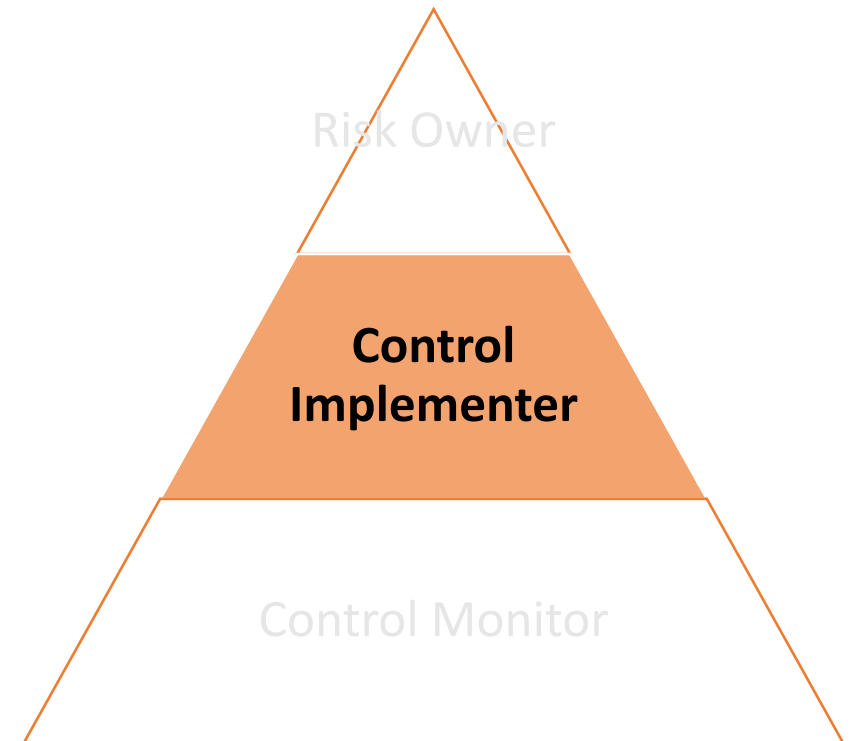




SHMS Role – Control Implementer

Typically:

- A few Control Implementers across the mine.
- Superintendent/Coordinator level supervisory positions.
- 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 MUE.
- Ensure that Control Monitors are adequately resourced and supported.
- Attend risk assessments, inspections, meetings and undertake document control/reviews.

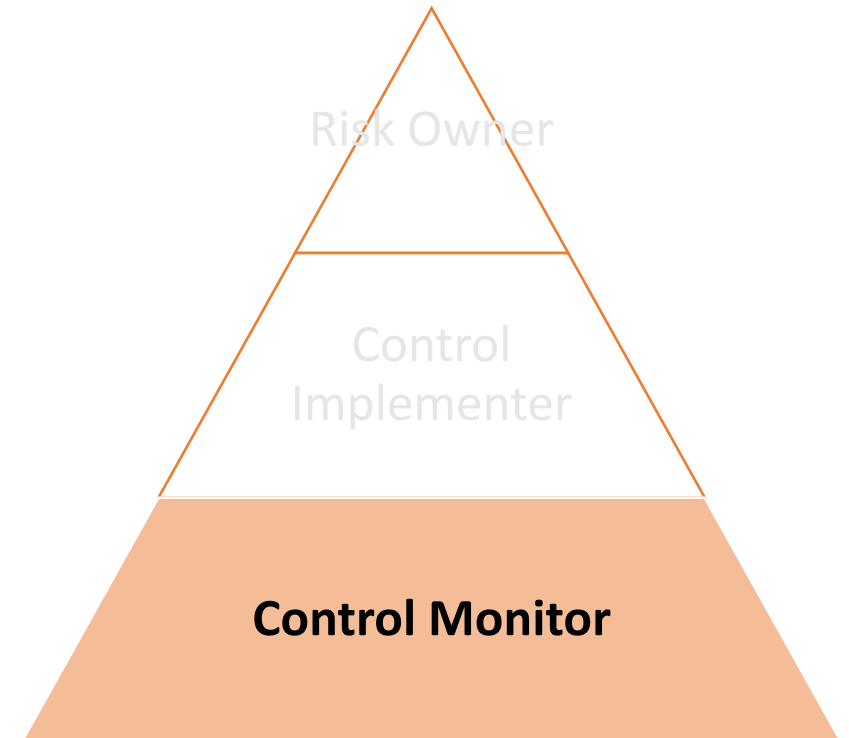




SHMS Role – Control Monitor

Typically:

- Numerous Control Monitors across the mine.
- Are Supervisory positions.
- Responsible for applying and monitoring the risk controls.
- Gather and review verification activities.
- 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 report to the Control Implementer.





Step 3. Competence and Training

CMSHA section 12 'Meaning of competence' plus RS11 provides 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 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 paradigm of sourcing an RTO to be able to provide training and/or assessment against the full suite of units.

Our research of more than **300 units of competency** and **over 110 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

Diligence over Negligence.

Many Queensland Coal Mining sites have applied combinations of the following:

- Engaging an RTO that offers a topic targeted **RII UoC** at AQF levels 4, 5 & 6.
- 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 in the 2015 Standards for RTOs and RS11.
- Using the site **SHMS** to complement any, or all of 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 require a rationale to track and provide an audit trail for the decisions made, as over time, the options available and utilised may change.



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 shows a software interface for managing roles. A modal window titled "Change Roles" is open, showing "Change roles for person" for "James Edwards". The dialog has several sections: "TEMPORARY LEAVE" with date pickers for "First day of leave" (05/07/2023) and "Last day of leave" (28/07/2023); "Site Senior Executive (SSE)" with a "Relieved by" dropdown menu; "EMPLOYEE OFFBOARDING" with a list of options: "David Dorty (Electrical Engineering Manager (EEM)) 100%" and "Jack Johannsen (Mining Manager) 100%"; and "PROMOTION (CHANGE ROLE)". 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, Letter of Appointment, and Letter of Appointment. The "Current" role is "Site Senior Executive (SSE)" starting on 26 Jun 2023.



Integrating Contractors into RS22

We believe Contractor Engagement remains one of the biggest challenges:

- 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 different scope than the Contract Holder / Supervisor normally have responsibility for.
- WHO is accountable for the SHMS roles associated with these Contractors?

Scenario:

The Mining Operations Manager is Contract Holder for a civil contractor, who's scope of work is to strip and move topsoil. The Contract Supervisor is the day shift mining supervisor. The civil contractor not only performs topsoil work, but they engage a local workshop to perform maintenance activities on their equipment and in turn they engage the site tyre contractor to also undertake tyre work for them. *How does your SHMS deal with this?*

Response:

We believe that the Mine Operations Manager & Supervisor have now taken on SHMS roles with respect to maintenance and tyre activities undertaken as a result of engaging this contractor, and therefore they require additional targeted competencies. ALTERNATIVELY, the Maintenance Manager / Superintendents can assume SHMS responsibilities for these aspects of the Contractor – but only if they made aware / accept and it is documented in the Management Structure.



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 Packages 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.
- Software-based solutions present 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



High Level Overview of RS22/SHMS context

