26 May 2025

Anthony Margetts
NSW Chief Inspector of Mines
NSW Resources Regulator

Dear Anthony

Re: Response to Draft Technical Reference Guide for Roads and Other Vehicle Operating Areas (Consultation Draft Version 2)

Thank you for the opportunity to comment on the second draft Technical Reference Guide. We write to share further insights from our Health and Safety Society and broader professional community.

AusIMM acknowledge and supports the NSW Regulator's continued efforts to reduce the risk of vehicle interactions in surface mining operations. The updated ROVOA Technical Reference Guide (TRG) presents a more detailed structure and demonstrates a genuine commitment to helping operators meet their statutory obligations under the WHS (MPS) Regulation.

We believe the guide could be further strengthened by addressing several important items, particularly around clarity of use, consistency with established frameworks, practical implementation, and control verification. We provide these comments, together with a marked-up version of the draft guideline for your consideration.

Key AusIMM recommendations

- **Simplification and Clarity for End Users**

The document, while comprehensive, may be overly complex for smaller operations with limited safety resources. We recommend developing a 'TRG-Lite' or Practical Field Guide version, tailored to small-to-medium operators, quarry managers, and supervisors. This would support more inclusive uptake and implementation across the full spectrum of regulated mines.

- **Structure and Logic of Hazard Identification**

The current table of hazards in Section 2.1 mixes hazard types, root causes, and outcomes (e.g., "slippery roads" vs "fatal accident"), reducing its practical value for risk assessment. We suggest restructuring this section using clearer groupings aligned with the five elements of the Control Framework: People, Equipment, Work Environment, Interactions, and Enabling Systems.

- **Application of the EMESRT 9-Layer Model**

While the TRG references the EMESRT layer defence model, it may overstate the model's intent and rigour. We strongly advise clarifying that this model does not replace risk assessment tools such as bow-tie analysis or LOPA. A disclaimer may be appropriate, for example:

'The EMESRT 9-Layer model is a useful conceptual guide for structuring operational controls, but it does not substitute for detailed risk analysis and control verification.'

- **Verification and Assurance of Control Effectiveness**

A major omission is guidance on verifying whether the controls described are effective in practice. We recommend the TRG be strengthened to include practical methods for control verification, inspection, and assurance.

- **Consistency with Broader Risk Management Frameworks**

The TRG does not clearly align with the NSW Code of Practice: Managing Risks or the typical Plan-Do-Check-Act (PDCA) cycle. We suggest incorporating a cross-reference table showing how the TRG aligns with ISO 45001, ICMM Critical Control Management (CCM), and the WHS (MPS) Regulation.

- **Scope Limitations – Exclusion of Autonomous and Remote-Controlled Equipment**

We note with significant concern the exclusion of autonomous and remote-controlled equipment from this TRG's scope. We recommend including a statement of future intent to address these systems in a subsequent guidance document.

- **Use of the Maturity Model**

The ICMM-derived maturity model is a useful planning aid but lacks guidance on how maturity assessment informs planning or what actions are triggered by the result. We recommend including an illustrative case study, a self-assessment tool with scoring guidance, and a decision tree for linking maturity levels to required actions.

There is also an implied requirement for all operations to use machine intervention controls, to achieve an Adaptive state for level 8 Advisory and level 9 Intervention control layers. This may not be practicable for some operations and may, indeed, not be required for low complexity, well managed sites with low numbers of vehicle movements occurring.

- **Monitoring and Verification of Control Implementation**

The TRG rightly outlines what controls should be present across the layered defence approach, but it does not go far enough in explaining how operators should monitor and verify the effectiveness of those controls in real-world conditions. We recommend including a structured Control Monitoring and Verification Framework, including:

- Leading and lagging indicators for control performance.
- Use of inspection tools and audit schedules aligned with each defence layer.
- Supervisor and front-line engagement activities such as Planned Job Observations or Start-of-Shift conformance checks.
- Integration with site data systems and dashboards to flag erosion or non-conformance trends.
- Examples of how mine operators can close the loop on assurance through incident investigation feedback and improvement triggers.

We commend the NSW Regulator for advancing this guide and its intent to support better vehicle interaction controls. With refinement in several key areas — particularly the separation of hazards and outcomes, clarity around frameworks, and the explicit inclusion of monitoring and verification practices — the TRG can provide enduring value to the full range of mining operations.

Thank you again for the opportunity to provide our feedback on this important guideline. We welcome the opportunity to continue engagement, including through direct engagement with our Health and Safety Society leaders and the provision of relevant case studies from our members.

Our Senior Manager for Government Relations, Harry Turner, who can be reached at hturner@ausimm.com, will be glad to discuss this further.

Our thanks and best regards

Peter Standish
Chair AusIMM Health and Safety Society

Harry Turner
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