CEMENT CONCRETE & AGGREGATES AUSTRALIA

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Dear Anthony

VEHICLE INTERACTION CONTROLS IN NSW MINES DISCUSSION PAPER

Thank you for the opportunity to comment on the NSW Resource Regulator's Vehicle Interaction Controls I NSW Mines Discussion Paper.

Cement Concrete & Aggregates Australia (CCAA) is the peak industry body for cement manufacturers, concrete suppliers and extractive operators throughout New South Wales. Collectively known as the heavy construction materials industry, our members are engaged in the quarrying of sand, stone and gravel, the manufacture of cement and the supply of pre-mixed concrete to meet New South Wales's building and construction needs. These businesses range from large global companies to SMEs and family operated businesses.

Cement, concrete, stone and sand are the critical materials that enables the $56 Billion New South Wales construction industry, employing 370,000 workers and contributing 45% of the New South Wales taxation revenue base.

CCAA notes the collaboration with the NSW Minerals Council to engage with industry about the implementation of systems and technologies that could assist to promote risk controls and reduce the increasing number of adverse vehicle interactions. We also note your encouragement of the forums and initiatives arising from the Earth Moving Equipment Safety Round Table (EMERST) and the International Council of Mining and Metallurgy (ICMM) to develop new systems to counter adverse interactions.

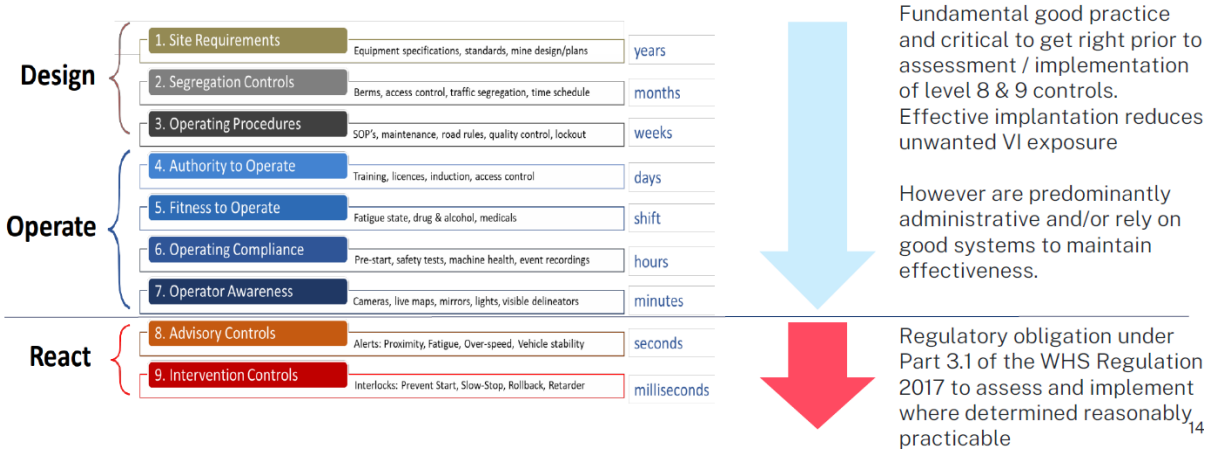
Proximity Detection (PD) and collision avoidance (CA) technology is used in a limited format across the quarrying sector. The level of equipment and rate of adoption varies from company to company, with the larger operators more likely to have implemented item such as reversing cameras and proximity alarms to newer FELS and dump trucks. Older equipment is less likely to have received a safety upgrade.

General Industry Feedback – Need for a greater awareness of EMERST controls

Members are highly focused on reducing or eliminating adverse vehicle interactions and the use of enhanced technology is assisting with this role.

While it was noted in the mining sector forums that there was a good awareness of EMERST, its Level 9 control effectiveness models and the initiatives of ICMM, this is not the case for quarry sector operators. Members perceived that the discussion paper was written from the perspective of an automatic understanding and awareness of these models but this is certainly not the case across the whole of the quarrying sector.

It was suggested that the EMERST model should be communicated more broadly by the Regulator across the quarrying sector to help deliver a more robust understanding of the model and its varying level of controls. *In particular, the Design and Operate controls 1-7 is viewed as critical, prior to future implementation of Level 8 & 9 controls.*



Feedback on Pathways

CCAA notes that the Resource Regulator has proposed 5 specific pathways as possible compliance directions to address adverse vehicle interactions.

Feedback received supports ***Pathway 5****, the development of a technical reference guide (TRG) for the requirements of vehicle interaction controls at mine sites as an industry guide*.

We believe that a technical reference guide for vehicle interaction controls at quarry sites would be particularly useful to help address the potential for adverse vehicle interactions.

Feedback on potential regulator position

We also note the three proposed possible compliance positions for the Regulator to address adverse vehicle interactions.

The extractive sector supports ***Position 1*** - It is reasonably practicable that mines assess the implementation of Proximity Detection and Collision Avoidance systems, conducting re-assessments as technology advances.

Members believed that it was appropriate for the regulator to assess the implementation of Proximity Detection and Collision Avoidance systems while conducting reassessments in the future with the advancement of technology.

Some of the alternative positions were not supported for the following reasons:

- There are minimal OEM collision avoidance options when choosing new equipment.
- While aftermarket collisions avoidance systems are available, many have limited capability and often cause challenges when retrofitting to new equipment for the first time.

- The quarrying industry is already going through a process of trialling different options to determine the most effective options from the limited options available.
- Unlike larger mines, quarries do not have the economies of scale in multiple pieces of the same equipment, requiring more trials, training and cost per piece of equipment.

Conclusion

It is clear that larger quarry operators are assessing, trialling and even implementing various vehicle collision avoidance technology primarily for the retro fitment to existing and new pieces of equipment. Broader rollout of the technology depends on the outcomes of the trials. Where benefits are demonstrated or at least perceived, these systems will be rolled out across the quarrying business, such is the case with fatigue monitoring systems, which are gaining wider acceptance across the industry and are being more broadly implemented. It is also apparent that many of these systems are in their early stages of development and not all systems meet the needs of industry.

CCAA also expects that the implementation of vehicle collision aids will also be unlikely in very small quarries until the technology is an OEM option and cost effective on new quarry machinery.

The emergence of new technology and its implementation will be the key to addressing adverse interactions across the quarrying sector, along with an improved understanding of the EMERST model.

CCAA argues that the approaches underlined in **Pathway 5** and **Option 1** will help to alleviate a range of concerns and assist to decrease the frequency of adverse vehicle interactions across the state.

Thank you again for the opportunity to comment upon the *Vehicle Interaction Controls in NSW Mines Discussion Paper*. CCAA is more than happy to discuss this matter further and accordingly, I can be contacted on 0448 848 848 or email Jason.kuchel@ccaa.com.

Yours sincerely,

JASON KUCHEL
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