10 December 2024

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Resources Victoria
DEECA

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Dear Ian/Karen

DRAFT BLASTING GUIDELINE NOVEMBER 2024

Thank you for the opportunity to comment on the Resources Victoria Draft Blasting Guideline.

Submission
The CMPA **does not** support the Resources Victoria Blasting Guideline.

Conclusion

- The level of prescription that is being proposed to apply is unwarranted.
- The Blasting Impact Assessment is not required under the *Mineral Resources (Sustainable Development) Extractive Industries Regulations 2019*.
- The Draft Blasting Guideline is also inconsistent with the Victorian Government's Economic Growth Statement that was launched today.

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Discussion
The CMPA developed the Blast Management Plan Template Issue 3 2020 which encompasses both Earth Resources Regulator (ERR) and WorkSafe Victoria requirements.

The framing of the draft Blasting Guideline appears to be ill-conceived in the context of Work Plan applications and the matters regulated by the ERR. The document fails to understand what constitutes a 'Blast Impact Assessment' or a 'Blast Management Plan' in differing contexts, nor that an approved Work Plan, being an inflexible compliance tool, is not the appropriate place for detailed blast management.

There are four fundamental issues with the draft guideline in the context of Work Plan applications.

1. **Extends well beyond matters regulated by ERR and required to be in a Work Plan**
   The draft guideline recognises that blasting is regulated by both ERR and WorkSafe, but the focus of these two regulators is quite different. While any blasting guideline produced by Resources Victoria needs to be consistent with relevant occupational health and safety legislation and standards, it should be focussed on the matters that the *Mineral Resources (Sustainable Development) Act 1990* (MRSD Act) requires to be addressed in a Work Plan. The MRSD Act requires that the Work Plan address the risks posed to 'sensitive receptors', which it limits to:

   - *the environment;*
   - *any member of the public;*
   - *land, property or infrastructure;*

   in the vicinity of work carried out at a quarry or mine.

   Importantly, a Work Plan under the MRSD Act is not required to address risks posed to employees or contractors, but of course those risks also need to be addressed in the site's risk management.

   The draft guideline is largely built around the specific requirements set out in Appendix A2.2 of Australian Standard AS 2187.2-2006, Explosives – Storage and Use: Use of Explosives, which is applied by WorkSafe through regulating the *Dangerous Goods (Explosives) Regulations 2022*.

   Clearly, there is a lot of cross-over in the required risk management for blasting to be regulated by both ERR and WorkSafe but ERR should have no role in regulating the highly adaptive risk management that is necessary to ensure the safety of employees and contractors over the life of the quarry.

2. **The required information is framed as a 'Blast Impact Assessment' but is in fact entirely based on a Blast Management Plan.**

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The draft guideline states that the listed items extracted from Australian Standard AS 2187.2-2006, Explosives – Storage and Use: Use of Explosives, that form the 'Blast Impact Assessment', are to be "*regarded as a subset of the overall Blast Management Plan contents*".

The listed items from AS 2187.2-2006 are all contextual information, details of blast design, and details of risk assessment and risk management, i.e. part of a Blast Management Plan. Item (h), "*Details of the risk management assessment*", as described in Appendix 1, has been significantly expanded with detailed risk management requirements. There are concerns about the specifics in these detailed requirements, in the context of a Work Plan application (see below).

A Blast Impact Assessment is a modelling exercise, generally assessing the worst-case scenarios, e.g. blasting at extraction limits with standard blast design, not individual blasts. Such assessments, where necessary, can demonstrate compliance with blasting limits at sensitive sites and identify zones where modified blasting design may be required. The listed items from AS 2187.2-2006 do not constitute a Blast Impact Assessment. However, within item (t), "*Environmental considerations for air-blast overpressure, ground-vibration*", as described in Appendix 1, there is an added requirement (without qualification) to:

- "*Demonstrate with computer modelling that the site will be able to comfortably comply with the following air-blast and ground vibration limits as defined in*" ANZEC 1990.

It is unreasonable to expect all blasting quarries to engage consultants to undertake computer modelling to demonstrate that they will be able to comply with blasting limits. It has been usual for ERR to advise operators that have no sensitive sites within 500m of proposed blasting that they do not need to provide a Blast Impact Assessment (based on computer modelling). In fact, this is alluded to in the descriptions of items (h), (i) and (z) in Appendix 1. Item (i) specifically states that "*a detailed assessment* (i.e. a Blast Impact Assessment) *will be required for a separation distance of less than 500 metres between a blasting quarry and a sensitive site*"

3. **No recognition of the role of a Work Plan, with over-arching risk management, versus the adaptive management under a Blast Management Plan.**
   The approved Work Plan required under the MRSD Act, in particular the Risk Management Plan component, is an over-arching risk management tool that is relatively inflexible. The approved Work Plan is a compliance tool, and all Work Authority holders are required to operate in accordance with their approved Work Plan.

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A Work Plan is therefore limited in providing detailed adaptive risk management, which is precisely what is required for effective blast management. Similarly for adaptive ground control management in multi-bench hard rock quarries.

The usual practice for ERR in relation to adaptive risk management has been for a Work Plan application to include a Risk Management Plan with over-arching (generally fixed) risk management, and specific control measures that implement the necessary adaptive management plans. The usual expectation is that such adaptive management plans (initial versions) are submitted with the Work Plan application as supporting documents to satisfy ERR that risks will be managed appropriately. However, these supporting documents are NOT part of the approved Work Plan under the MRSD Act, which allows them to be reviewed, modified and updated without invoking a Work Plan Variation (or an Administrative Update, at least); as is necessary for good risk management.

The draft guideline specifically states (incorrectly), under the heading "Changes to Blasting Operations", that "*Should the blasting requirements at a mine or quarry change, then the process to vary the approved work plan … will need to be followed.*"

Given the level of detail for blast management that is required by this draft guideline, much of which is necessarily adaptive, the statement that "*The guideline specifies the blasting information requirements for approval of work plan and work plan variation applications …*" is completely incorrect.

4. **No recognition that a specific Blast Management Plan is required for each individual blast.**
Regulations require that a Blast Management Plan must be developed and documented for each individual blast, as the circumstances and parameters of every blast may be different. This is clearly not possible in the context of an approved Work Plan.

It is believed that the authors of this draft guideline may be confused about what constitutes a Blast Management Plan and are thinking of a more general, overarching management plan, which would include the implementation of detailed management plans for specific blasts (as per AS 2187.2-2006). As above, this is further confused by describing a subset of a management plan as a 'Blast Impact Assessment'. However, even such an overarching Blast Management Plan would still need to be adaptive with changing conditions as a quarry develops, with changes to the sensitive sites potentially exposed to blasting hazards, and with any necessary modifications to blast design (based on gained experience or any particular need for controlled blasting techniques in some zones).

The specific requirements set out in Appendix A2.2 of Australian Standard AS 2187.2-2006, Explosives – Storage and Use: Use of Explosives, on which this draft guideline is based, are in fact the requirements for a specific Blast

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Management Plan for an individual blast – NOT the requirements for an overarching, adaptive blast management plan (and certainly not a Blast Impact Assessment). The detail stated in AS 2187.2-2006, which necessarily needs to be adapted for each blast, is not at all appropriate for inclusion in an inflexible Work Plan.

In addition to the above fundamental issues with the draft guideline, in the context of Work Plan applications, we have the following comments on the detail of the draft document.

Item (h), "*Details of the risk management assessment*" – described and expanded in Appendix 1

- There are a number of detailed added requirements that are concerning in the context of a Work Plan application.

- The listed blasting related hazards and generic control measures and monitoring will already be included in the Risk Management Plan component of the Work Plan application, as required by legislation.

- Laser profiling of the face and bore tracking of the front row is not necessarily required for all blasts at all sites. It is noted that the description for Item (y) implies that these activities are not necessarily mandatory.

- Electronic monitoring of air-blast overpressure and ground vibration is not necessary for all blasts at all sites. ERR advice has been that where initial monitoring shows impacts at sensitive sites are within limits then ongoing monitoring is not necessary. Although further monitoring should be undertaken if the blasting method or parameters change.

- It is stated that the electronic monitoring is to be conducted at a sensitive site (i.e. within 10m of the structure). Which is clearly not possible, or necessary, if there are no sensitive sites within the vicinity. ERR advice has been that electronic monitoring is not necessary if all sensitive sites are more than 500m from blasting (or more than 200m for occupied commercial sites). If there are sensitive sites in the vicinity, then it may not be practical to monitor at the site and ERR advice has been that it is acceptable to monitor at the property boundary if this can demonstrate compliance.

- Monitoring for air emissions from blasts is not necessarily required for all blasts at all sites.

Item (i), "*Details of adjacent structures or services that influence the blast design*" – described in Appendix 1

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- The location of sensitive sites, public roads and infrastructure will already be included on drawings included in the Work Plan application, as required by legislation.

- The reference to EPA Publication 1518 is outdated. This document was superseded by an August 2024 publication.

Item (t), "*Environmental considerations for air-blast overpressure, ground-vibration*" – described in Appendix 1

- As detailed above, it is unreasonable to expect all blasting quarries to engage consultants to undertake computer modelling to demonstrate that they will be able to comply with blasting limits.

- The recommendation to apply a level of 2mm/sec (ppv) for ground vibration, by reference to ANZEC 1990, ignores that ANZEC 1990 also recognises that such low levels may not be achievable at all sites. Regardless, the MRSD Act, as well as the Environment Protection Act 2017, already require that risks be minimised as far as reasonably practicable, and this will necessarily be reflected in a Work Plan application by implementing a range of control measures and monitoring, as appropriate for the operation in question.

- The recommendation to apply a level of 2mm/s (ppv) for ground vibration (during the day period) is not at all consistent with the stated 3mm/s limit (at sensitive sites) stated for underground blasting during the night.

- The added air-blast overpressure and ground vibration limits for occupied commercial premises are somewhat superfluous, as these higher levels would be easily met under most circumstances. Demonstrating, with modelling (i.e. a Blast Impact Assessment), that these limits can be met would only apply in exceptional circumstances and should certainly not be mandatory for all blasts at all sites.

- It is noted that the stated air-blast overpressure and ground vibration limits for occupied commercial premises are not sourced from ANZEC 1990 and their basis is not clear.

Item (y), "*Details of the exclusion zone (Surface operations only)*" – described in Appendix 1

- The recommended separation distances do not allow for specialised/ controlled blasting techniques to be applied in circumstances where recommended separation distances or blasting limits cannot be met. Where such techniques are required, they would be subject to modelling (i.e. Blast Impact Assessment) to demonstrate that compliance is possible with specific modified blasting techniques.

These blasting guidelines clearly demonstrate that there appears to be a lack of understanding in ERR of what a Work Plan is. The level of detail required by this guideline

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does not belong in the Work Plan that is the compliance document. As it is written, it is setting the site up for failure when compliance officers come visiting and opens the door for compliance to enforce a Work Plan Variation for something as innocuous as a change in burden, or at least require the site to "**demonstrate**" how the change in burden will impact receptors

Other fundamental issue is the requirement to "**Demonstrate**". Whilst the acknowledgement of "commercial" properties requiring a higher tolerance may be agreed with, the need to **demonstrate** this requires a BIA. This is essentially asking every blasting operation to conduct a BIA, regardless of history, and may also be interpreted by an overzealous compliance officer, to monitor every shot, regardless of site history, receptors or location.

Some of the language used in the document would suggest it has been reviewed by ERR Assessments which if correct is concerning, as it the opinion is much of the requirements are outside the Regulations.

It is frustrating that ERR feel the need to increase the detail required in a Work Plan, (Blast Management Plans, Surface Water Management Plans, Ground Control Management Plans, Dust Management Plan, Noise Management Plan etc.) only to have them "thrown out" under the Duty based Model in 2027.

Under current regulations, the Work Plan needs only reference to the Blast Management Plan, an adaptive risk management document that details the overarching design methodology, critical receptors and site issues, typical site characteristics and shot design, individual shot parameters and daily shot records.

Specific Comments

Page number	Blasting Guideline	CMPA comments
p.1 2nd line	*"…for an opencut or underground mine, or a quarry…"*	Inclusion of mines throughout the Guideline with all its negatives is not supported when linked with quarrying.
p.1 3rd para	*"…operation is then regulated by the Earth Resources Regulator, the Relevant Planning Authority and WorkSafe Victoria."*	The Relevant Planning Authority does not have, nor should they have, the skills to regulate blasting.
p.1 4th para	*"…quarry sites that require blasting must have an approved work plan…"*	Does this Guideline become redundant with the MRSD Act reform?
p.2	*"Table 1: AS2187.2 - Appendix A2.2 identifying the items required by ERR for a work plan or work plan variation"*	All sections that are in the CMPA's Blast Management Plan Template are reproduced in the Blasting Guideline. It is not understood why a further

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		document is required which creates unnecessary complexity.
p.3 2nd para	*"If there are sensitive receptors nearby an appropriate person is likely to be suitably qualified with a tertiary qualification in mining engineering…"*	The sensitive receptors must be nominated by the Work Authority holder so that there is no doubt.
p.41st para	*"Should the blasting requirements at a mine or quarry change, then the process to vary the approved work plan…"*	There needs to be clarification of the definition for blasting requirements: distance, definition of receptor etc. so that there is no doubt.
p.4 Sensitive Sites	*"Includes any land within 10 metres of a residence, hospital, school, or other premises in which people could reasonably be expected to be free from undue annoyance and nuisance caused by blasting."*	Is the 10 metres outside the buffer?

I would be pleased to discuss these matters with you. Please contact me on 0434 692 618 or via email at elizabeth.gibson@cmpavic.asn.au in respect of any matter.

Yours sincerely

EMGibson

Dr Elizabeth Gibson
General Manager

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About CMPA

CMPA is the premier representative body for the Victorian extractive resources industry. It represents a broad spectrum of those involved in construction material processing including construction and demolition waste recycling businesses and has a membership base consisting of over 220 quarries across the industry. Together, these members employ approximately 2000 Victorians which underpins the construction industry of almost 240,000 employees (https://liveinmelbourne.vic.gov.au/connect/victorian-industries/transport-defence-and-construction).

CMPA members are typically small to medium sized family, and private businesses, local government, utility providers and national companies. Many are regionally based employers and service local construction, infrastructure, and road maintenance needs. The extractives sector is a key pillar within the construction industry underpinning the growth and economic development of Victoria through supply of the construction materials.

In 2022/23, the sector supplied approximately 72 million tonnes of construction materials and 7 million tonnes of recycled construction and demolition waste (25% of total freight movement in Victoria) to the market, at a value of approximately $1.4 billion directly supporting Victoria's $80 billion Big Build (https://bigbuild.vic.gov.au/about) and the estimated 1.6 million new homes required by 2050 (https://earthresources.vic.gov.au/geology-exploration/industry-investment/ joint-ministerial-statement-on-extractive-resources). Small to medium quarries account for approximately half of this production and is submitted to be a vital industry supporting the ongoing economic prosperity of Victorians. An additional 6.5 million tonnes of recycled construction and demolition waste was also produced.

The CMPA supports the principle of responsible, balanced legislation that is in the best interests of the State of Victoria and Australia.

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