

# COMPLIANCE PRIORITIES OUTCOMES

## Changes to exposure standard for respirable crystalline silica Coal: Surface and underground

### Legislative amendments to exposure standard for respirable crystalline silica

**Issue:** On 1 July 2020, the workplace exposure standard for respirable crystalline silica was reduced from 0.1mg/m<sup>3</sup> to 0.05mg/m<sup>3</sup>. As a result, mines and petroleum sites are now required to comply with the standard and notify of exceedances of the revised exposure standard to the NSW Resources Regulator (the Regulator) in accordance with clause 128(5)(r) of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014. The Regulator published a position paper in March 2020 which outlined transitional arrangements following the revision of the exposure standard.

### What we did

Assessments were undertaken at 44 sites (surface and underground) between July and November 2020. Each of the sites were assessed on the following criteria:

- Knowledge of the principal hazard.
- Awareness of the revised limit and exposure groups potentially placed at risk.
- Relevance and accuracy of associated risk assessment, management plans, and control plan.
- Appropriate controls were identified and subsequently implemented in order to comply with the revised limit.
- Information, training, and instructions given with regards to the revised limit.
- Health monitoring arrangements.

## What we found

- Several mines did not have specific data regarding the inherent quartz content within the strata horizons that were being mined. This was predominantly within the open cut sector, however this was also identified at some underground mines.
- Generally, the changes in the exposure standard were well understood and had been communicated to the workforce.
- Some mines have incorporated an agenda item within their WHS committee meetings to review and analyse recent dust sampling results.
- It was common for thorough and detailed investigations to be undertaken following an exceedance result of dust sampling. However not all sites have an 'action-exposure limit' (e.g. 50% of occupational exposure limit) to trigger any analysis or review.
- Some mines adopted the coal services similar exposure group (SEG) nominations which may or may not have addressed the risk areas unique to the site.
- Not all individual workers receive a copy of their dust sampling results. Whilst some mines are very thorough in this practice, other mines had inadequate systems to ensure the sampled workers receive a copy of their results.
- Some mines displayed a poor association between the health control plan and the airborne dust principal hazard management plan (PHMP) with numerous statements and/or terminologies contradicting each respective document.
- Some mines had not revised the exposure standard for respirable crystalline silica within the associated elements of the safety management system, signifying a deficiency within the triggers to review the safety management system.
- Some mines had risk assessments for the management of airborne dust hazards which were not current or relevant and were greater than three years since the risk assessment had been reviewed.

## Outcome

The assessments resulted in the issuing of:

- seven section 191 notices
- seven section 23 notices.

## Next steps

The Regulator is currently conducting assessments which are focussing on the principal hazard, air quality or dust or other airborne contaminants. These assessments also discuss the relevant exposure standards, however, they are directly attributed to the critical controls that should be implemented in order to eliminate the risk or reduce as low as reasonably practicable.

The Regulator will continue to prioritise the assessment of controls for silica and respirable dust into 2021. This will be integrated into every planned inspection and targeted assessment undertaken at mine sites.

In addition, the monitoring and analysis of assessment and/or incident data is constantly completed by the Regulator. This information is then utilised to determine industry performance and identify high risk practices which require further assessment or intervention.

## Recommendations

Mine operators should:

- confirm inherent quartz content within the strata being mined, and incorporate this into feasibility projects for other potential mining areas
- ensure the health control plan and airborne dust PHMP are up to date and reflect the work methods and sampling regimes employed at the mine
- identify SEG groups unique to the site and consult with relevant content and industry experts for the purpose of creating a risk-based sampling program
- continue to identify and implement controls to eliminate dust generation through applying the hierarchy of controls
- consider the introduction of an action exposure limit (e.g. 50% of operational exposure limit) to understand trends and high-risk tasks which occur on site
- develop an effective system which verifies workers receive results from dust sampling
- develop a triggered action response plan (TARP) (or incorporate into existing dust TARPs) for exposure limits on site with defined actions for the management team to take
- ensure all workers are trained in regard to the upcoming change for the respirable dust limit and the introduction of a diesel particulate matter limit in February 2021.

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Coal: Surface and underground

DATE PUBLISHED	REFERENCE	TITLE
Aug 2020	Investigation information release	<a href="#">Open cut coal mine worker contracts coal workers' pneumoconiosis</a>
Jun 2020	Guidance poster	<a href="#">Changes to airborne contaminants and dust exposure standards guidance poster</a>
Mar 2020	Position paper	<a href="#">Revision to silica exposure standard</a>
Aug 2019	Consolidated report	<a href="#">Dust and other airborne contaminants in open cut coal mines</a>
May 2019	Investigation report	<a href="#">Coal Worker Pneumoconiosis – Worker Y</a>
Jul 2018	Guide	<a href="#">Airborne contaminants principal hazard management plan</a>

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