

RCS controls, exceedance investigations

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Legislation



Mining and Quarrying Safety and Health Act 1999

Current as at 7 September 2020



Mining and Quarrying Safety and Health Act 1999

Mining and Quarrying Safety and Health Regulation 2017

Current as at 10 June 2022



Resources Safety & Health
Queensland

QGL02 - Guideline for management of respirable dust in Queensland mineral mines and quarries

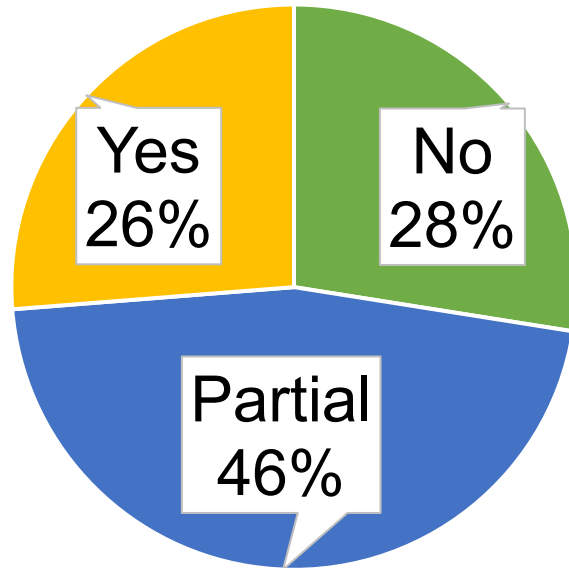
Mining and Quarrying Safety and Health Act 1999

April 2021
Version: 4.0



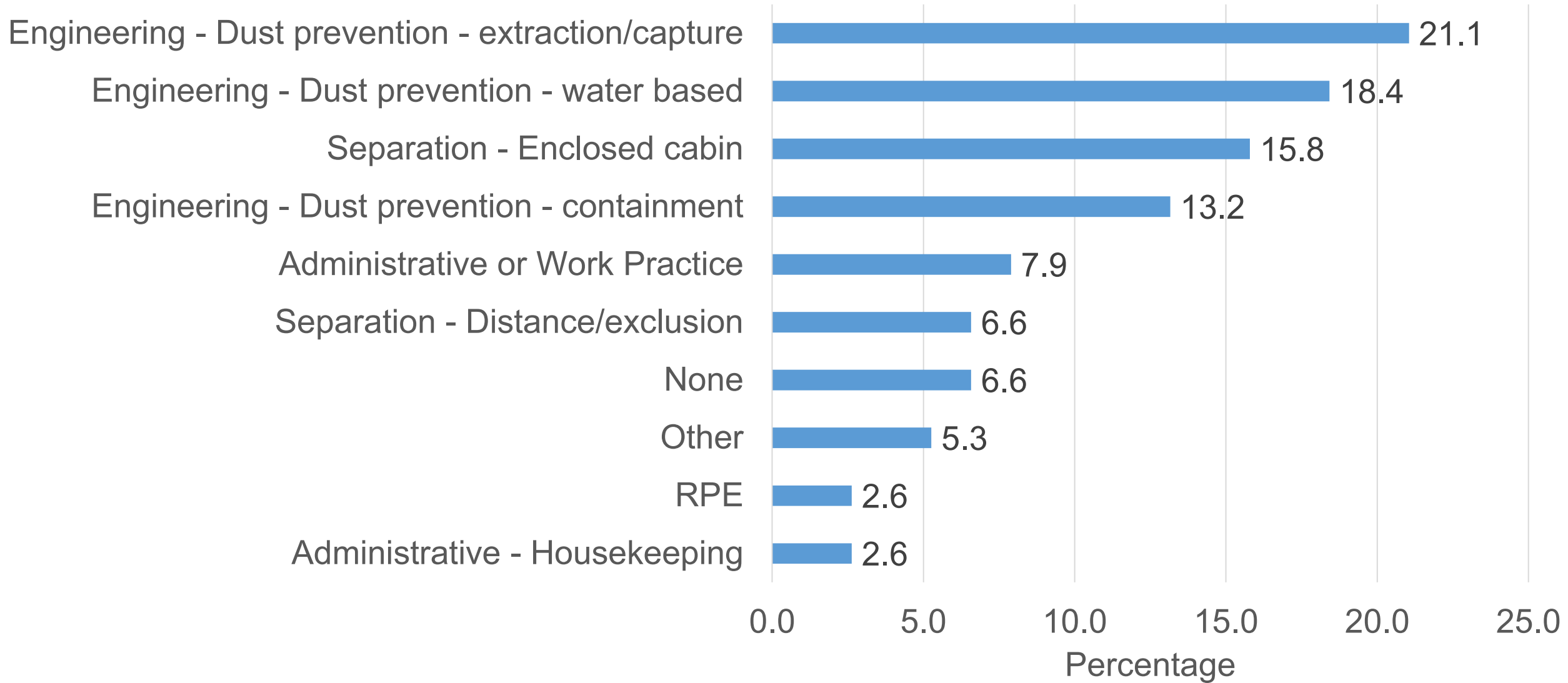
Compliance and Investigations

Controls implemented and effectiveness measured



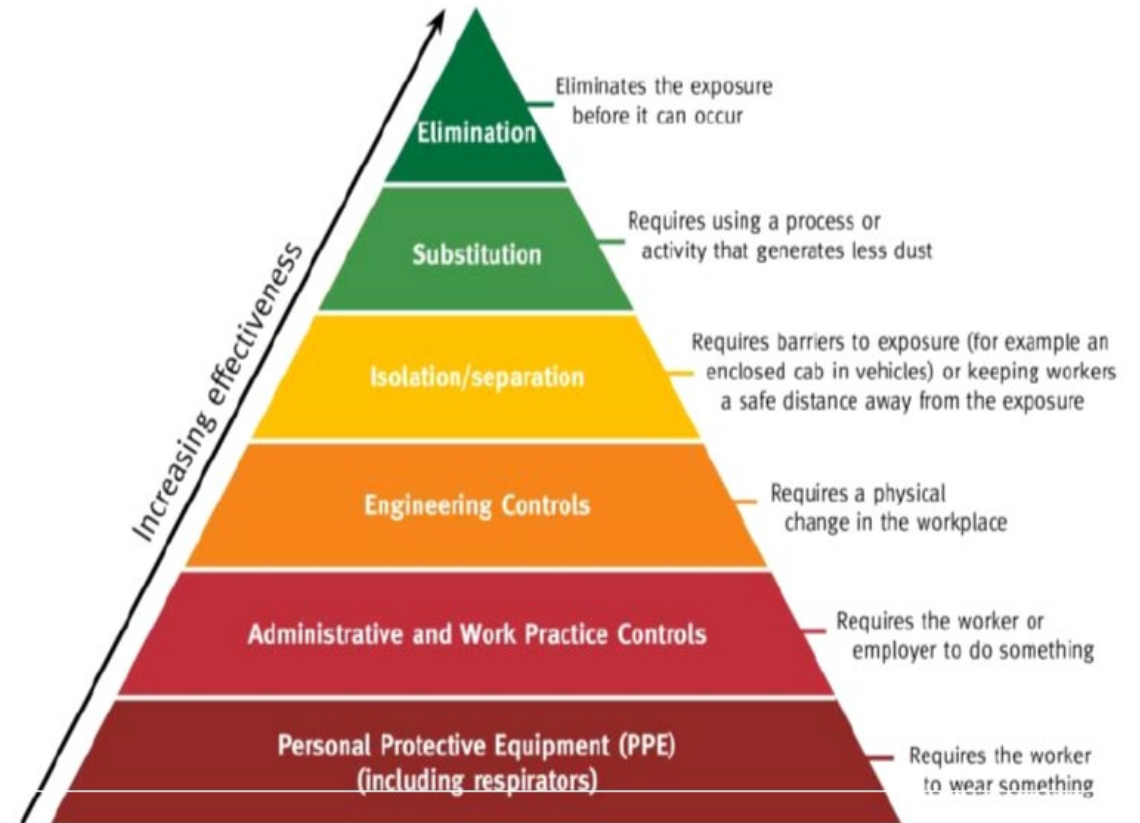
- Did the investigation identify the cause of exceedance?
 - 62% – Yes
 - 38% required inspectorate input

Existing primary failed control



QGL02 – Reducing risk

- A person who has an obligation to manage risk associated with respirable dust must as far as reasonably practicable, apply hazard controls starting at the top of the hierarchy of control.



QGL02 – Reducing risk

- Reasonably practical means weighing up matters such as:
 - Likelihood of the hazard or risk occurring;
 - The degree of harm from the hazard or risk;
 - What a person with an obligation to manage risk knows or ought to know about the hazard or risk, and about eliminating or minimising risk;
 - The availability and suitability of ways to eliminate or minimise the risk;
 - The cost associated with the available ways of eliminating or minimising risk, including whether the cost is grossly disproportionate to the risk.

- **Cost of implementing controls:**
 - Cost of implementing a control may include costs of purchase, installation, maintenance, operation and any impact on productivity as a result of implementing the control measure.
 - The more likely the hazard or risk is, or the greater the harm that may result from the hazard, the less weight should be given to the cost of eliminating the hazard or risk.
 - If there are a number of options available for eliminating or minimising a hazard or risk that can achieve the same level of reduction in likelihood or degree of harm, an Operator may choose to apply the least costly options.
 - The question of what is reasonably practicable is to be determined objectively and not by reference to the Operator's capacity to pay.
 - An Operator cannot expose a worker to a lower level of protection simply because it is in a lesser financial position than another Operator.
 - If an Operator cannot afford to implement a control that is not disproportionate to the risk as to be clearly unreasonable, the operator should not engage in the activity that gives rise to the risk.

QGL02 – Reducing risk

- Where control measures include plant, equipment or systems to eliminate or minimise respirable dust entering a worker's breathing zone, the SSE must ensure the following information is documented in the SHMS:
 - Description of the hazard and control/s;
 - Person/position in Management Structure responsible for the control/s;
 - Technical specifications and performance requirements of the control/s;
 - Activities that maintain the effectiveness and reliability of the control/s.
 - Activities that verify control performance;
 - Person/position in Management Structure responsible for control verification activities.

Case Study 1

- 11 RCS exceedances were reported over 3 year period.
- Investigations of 10 of these exceedances identified the effectiveness/capability/serviceability of the aging dust extraction system in the processing plant as the root cause of these exceedances.
- Inability to obtain capital from the Operator to re-instate/replace the dust extraction system was cited as the reason for the continuing exceedances.
- On seeing this trend, an inspector gave a s.163 Directive to reduce risk of workers' exposure to RCS by re-instating/replacing the dust extraction system.

Case study 2

Mobile crushing and screening plant











McCloskey

McCloskey

6440





Mineral Mines & Quarries Inspectorate



Resources Safety & Health
Queensland

Case study 3

Dry Plant





Costs

- Supply 100 filter bags \$4225
- Supply ducting for stage 1 & 2 replacement \$3250
- Labour for fitment \$2520
- Total cost \$9 995

- Unit is now more serviceable

