

RCS Management on QLD Quarries

Current approaches and emerging issues

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 Wagners Holding Company Ltd
 Wallaroo Contracting Pty Ltd
 Western Suburbs Concrete
 Zanows Sand and Gravel

Focus of presentation

- 1) Overview of current quarry industry practices on control measures to reduce exceedances
- 2) Key challenges and emerging issues

About the industry

- **Local industry** supplying construction materials for the built environment – housing, roads, bridges, community and commercial structures
- Approximately 500 operational quarries, with another 500 smaller quarries that provide as an “on needs” basis
- Quarries are **spread across QLD**, particularly in areas closer to population settlement and where geology is suitable
- **Diverse range of operators** – from small family businesses to international companies with a number of sites
- About 60% of quarries have **less than 15 employees** on site

Legislative Framework

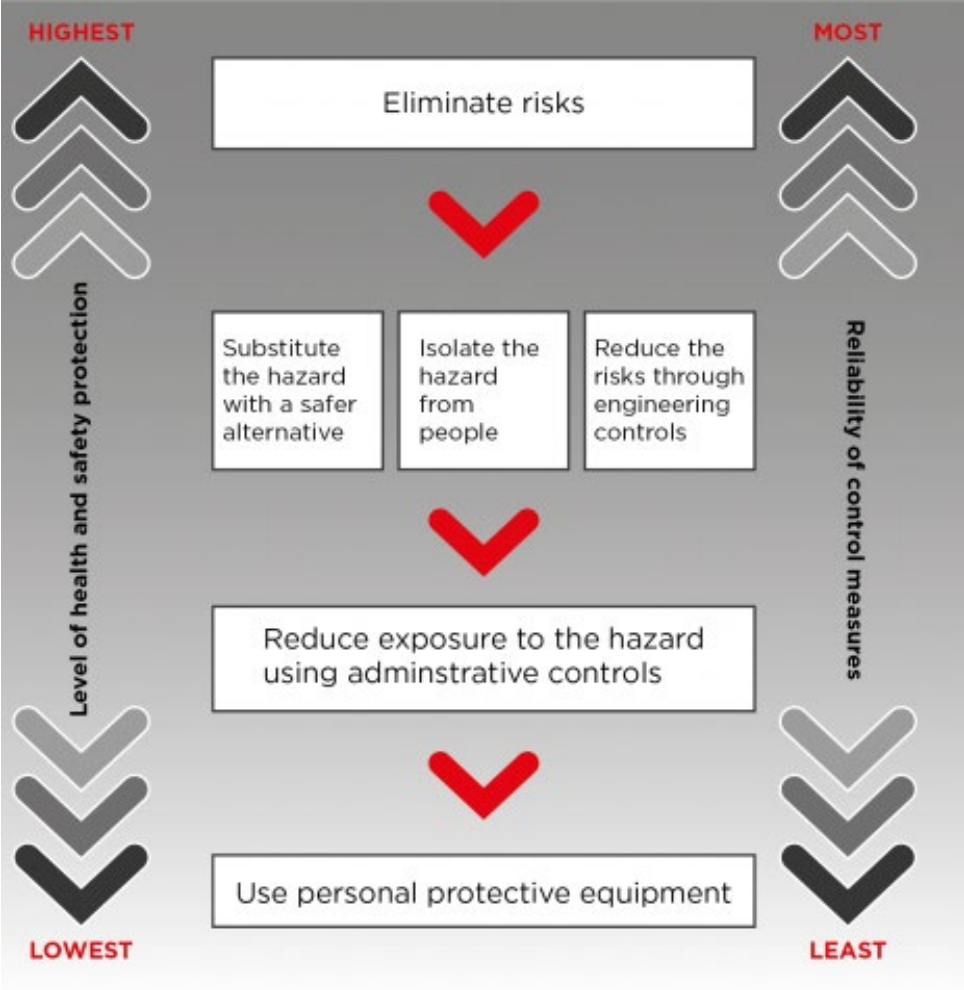
- Operates under a **risk based framework** with regulatory oversight by RSHQ
- *Mining and Quarrying Safety and Health Act 1999* and the *Mining and Quarrying Safety and Health Regulation 2017*
- *QGL02 Guideline for management of respirable dust in Queensland mineral mines and quarries*
- *QGL04 - Guideline for respiratory health surveillance of workers in Queensland mineral mines and quarries*

RCS Management

- Industry has been aware of potential health effects from RCS for a number of decades.
- Quarries identify areas of highest risk and put in measures to mitigate that risk as much as possible
- Management systems, engineering controls, administrative procedures are used to management risk
- Measures evolve upon advances in technology, site management, internationally and other sectors
- Journey is never over and industry continually revisits and reviews its approach
- Increased focus in recent years:
 - Re-emergence of CWP in Coal Sector in QLD
 - Increased cases in engineered stone sector
 - Changes in regulatory framework in QLD
 - Lowering of Safework Australia Occupational Exposure Limit



Hierarchy of control



Current industry practices – management systems

- **Identification** of RCS dust hazards
- Establishment of an **RCS dust action level** (typically at half the WES)
- **Regular monitoring** of RCS dust exposures and **reporting** to RSHQ
- Provision of **training** in RCS dust hazards and their control
- Provision of **protective respirators and supervision** of their use
- **Health Surveillance** (medical monitoring) for employees in accordance with Government Standards
- Requiring **contractors** potentially exposed to RCS to comply with the program
- Provision of resources for materials, equipment, work methods and practices, with the goal of improving control measures
- Regular review of the RCS Program

Current industry practices – engineering controls

- Adoption of methods aimed at **minimising the generation of dust**.
- Climate-controlled environmental **cabs** or **booths** for heavy equipment operators.
- **Dust collectors, drill steel skirts, and water sprays** around drilling machines.
- **Enclosed spouts** in bagging and other operations where sand, rock, or other dusty materials are located.
- **Enclosed hoods** and other general or **local exhaust ventilation** for dust capture at the source.
- **Automation of high-exposure jobs** to avoid personnel exposure.
- **Water, mist, or fog** (including foam and wax based) sprays to keep dust from escaping at the source such as roadways, stockpiles, primary crushers, secondary crushers, screens or conveyor ends.
- The **use of properly maintained local exhaust ventilation systems** and high-pressure vacuums for work area cleaning.
- **Prevention of operations**, such as dry sweeping or use of compressed air, that increases airborne dust levels and potential exposures to respirable crystalline silica-containing dusts.

Current industry practices – administrative controls

- **Using job and/or employee rotation to minimize exposures** in work areas and/or during operations that are known to be dusty and pose higher potential exposures to respirable crystalline silica-containing dusts. This may also include automation of some high exposure tasks
- **Training employees who are exposed to RCS dusts in legislative requirements,** specific nature of the operation(s) which could result in exposure, health effects, engineering controls and work practices, housekeeping requirements and understanding product MSDS, labels, or other forms or warning, the purpose, proper selection, fitting, use and limitation of PPE, purpose and description of the medical surveillance program, including information concerning the health effects associated with excessive exposure

Industry Education & Resources

- 1) [CCAA Guideline](#) which includes Toolbox Talk
- 2) [CCAA Data Sheet](#)
- 3) [Breathe Freely Australia – Quarrying](#)
- 4) [IQA Training](#) and [Fact Sheets](#)
- 5) Quarrying Safety and Health Conference (CCAA, IQA, and RSHQ)
- 6) CCAA Innovation Awards
- 7) In house and external occupational hygienists (including RSHQ OH)

Key challenges and emerging issues

- 1) **1 September** requirements
- 2) **Current skill and labour shortages** including staff attraction/retention
- 3) Increasing **energy** and **fuel costs** and **water management**
- 4) SSE workload
- 5) Contractors – maintenance (worker availability)
- 6) Fit testing – facial hair
- 7) **Uncertainty with future OEL requirements – biggest emerging issue**