# SAFETY MEMO

CORAL HOMES

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| **Title:** | **Managing Respirable Crystalline Silica Dust Exposure** | | |
| **Date:** | **Monday, 20 November 2023** | **Memo Ref** | **SM201123** |
| **Issued to:** | **NSW Construction and Subcontractors operating in NSW** | | |
| **Background:** | Crystalline silica is found in sand, stone, concrete and mortar. It is used to make a variety of products, including benchtops, bricks, tiles, and some plastics.<br><br>When workers cut, crush, drill, polish, saw, or grind products containing silica, very fine dust particles known as Respirable Crystalline Silica (RCS) are produced. When RCS is inhaled on a regular basis, it can cause serious illness or disease including silicosis.<br><br>Regulations cover both construction sites and workplaces that manufacture construction elements and to ensure compliance, inspectors will visit work sites to monitor activities that create silica dust. Inspectors will look at your safe work method statements for RCS dust generating activities and ask about your consultation with workers. They will also look at what controls you have in place and whether those controls are being followed by all workers.<br><br>Inspectors may also ask you to provide any air and health monitoring records and will look at any respiratory protective equipment in use, your clean up and disposal methods for silica waste and the impact of the RCS generating activity on workers. | | |
| **Direction to Sub-Contractors:** | Coral Homes requires all contractors performing RCS dust generating activities to review their existing SWMS and update in line with the regulatory requirements and Coral Homes Construction HSE Management Plan minimum requirements for RCS management.<br><br>SWMS must be specific to the tasks being undertaken and outline:<br>1. Worker consultation & training.<br>2. Air and Health monitoring requirements where relevant.<br>3. RCS dust control measures e.g., water suppression, vacuum extraction.<br>4. RCS waste management practices e.g., wet sweep/vacuum, bagged, sealed and disposal.<br>5. Respiratory Protection Equipment (RPE) that must be used for the task.<br><br>Refer to the RCS dust management presentation below for RCS control methods required for various activities and remember, dry drilling, cutting, grinding, and sanding of engineered stone is strictly prohibited on Coral Homes construction sites.<br><br>*Scan QR Code to review Coral Homes Construction HSE Management Plan:* | | |
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| **Contact No:** | 0400 774 480 | **Date:** | 20/11/2023 |

# Respirable Crystalline Silica (RCS) Dust Management

## New South Wales

CORAL HOMES

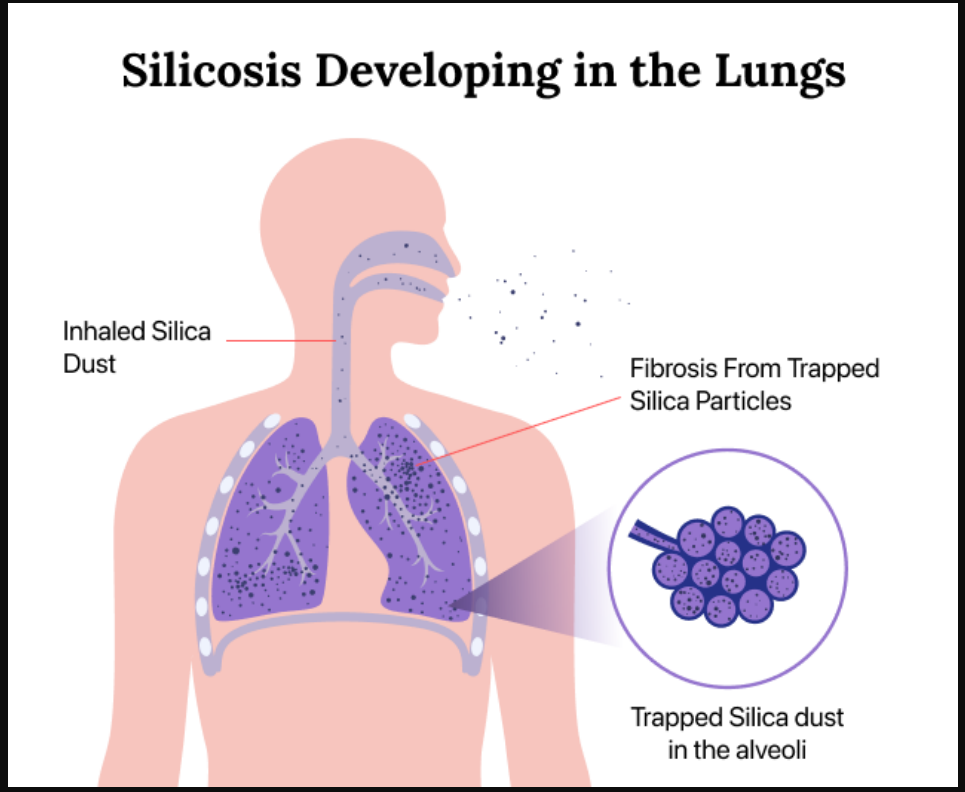
# What is Silica Dust?

Crystalline silica is found in sand, stone, concrete and mortar. It is used to make a variety of products, including benchtops, bricks, tiles, and some plastics. When workers cut, crush, drill, polish, saw, or grind products containing silica, very fine dust particles known as Respirable Crystalline Silica (RCS) are produced. When RCS is inhaled on a regular basis, it can cause serious illness or disease including silicosis.

# Silicosis

Silicosis is a chronic, deadly lung disease that is caused by the inhalation of silica particles. When these materials are cut, ground, mixed, swept or polished, tiny respirable silica particles not visible to the naked eye may be inhaled deep into the lungs, causing scarring and fibroids. These fibroids make it increasingly difficult for a sufferer to breathe.

Workers who have developed silicosis can experience severe shortness of breath and become easily exhausted, as well as suffer from secondary silicosis complications such as lung cancer, emphysema, and kidney damage.




**Remember:** Silica dust is not always visible, and workers cannot count on dust visibility as a risk indicator.

# Legal Requirements

Workers and PCBUs must follow the legislative requirements to manage working with silica dust risks on a construction worksite. Inspectors can issue prohibition notices to stop you from doing work that generates high levels of silica dust. If you don't comply with a prohibition notice, PCBUs (employers) can face penalties up to $100,000. Individuals may also receive fines for not meeting their obligations under WHS laws.

Legislative resources:

- SafeWork NSW – Crystalline Silica
- Crystalline Silica - Technical Fact Sheet
- Work Health and Safety Regulation 2017 – NSW
- Work Health and Safety Act 2011

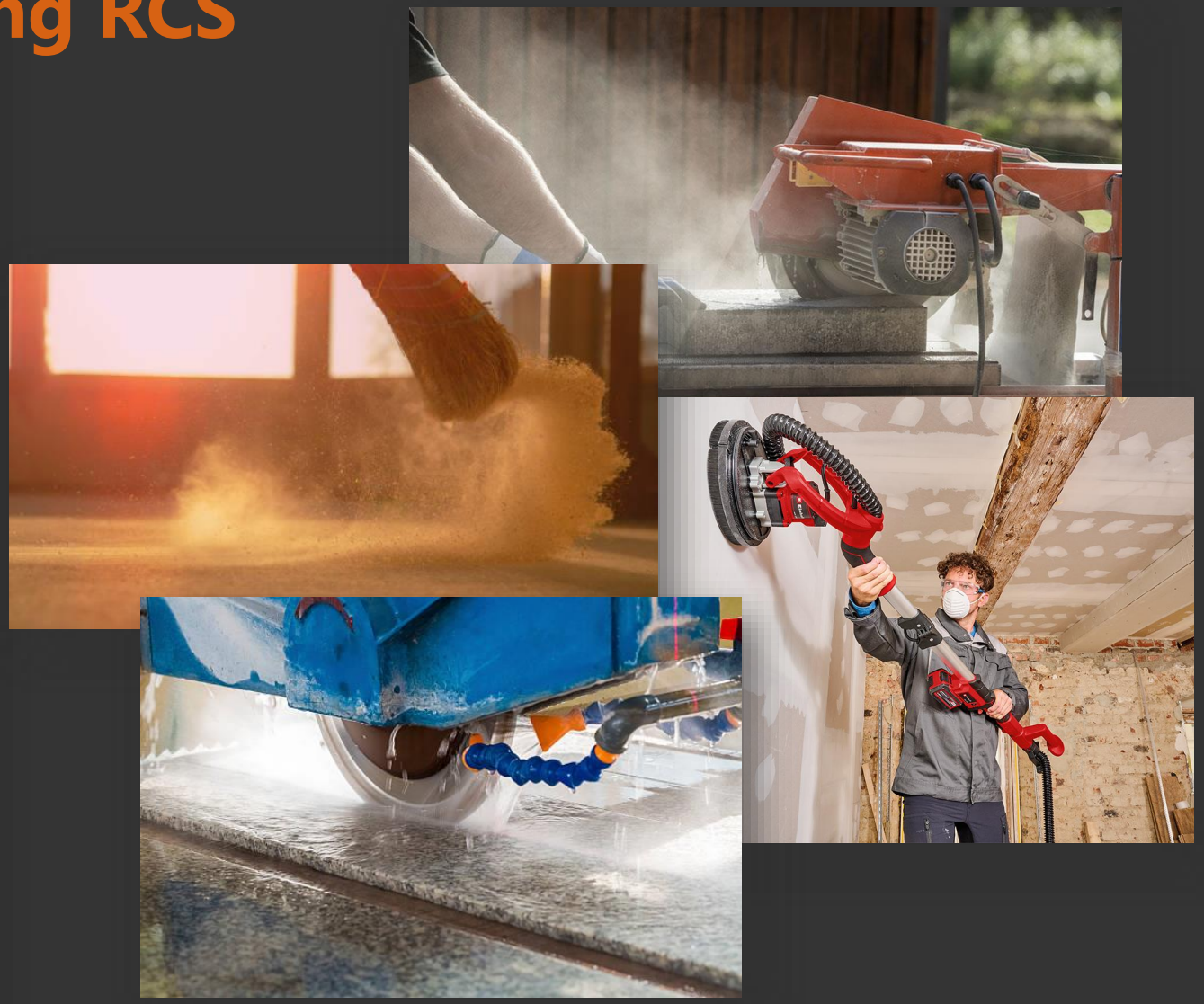
# Tasks generating or disturbing RCS

Respirable crystalline silica (RCS) can be generated and released into the air during tasks that involve high-energy processing, such as:

- Cutting
- Sawing
- Grinding
- Sanding
- Drilling
- Sweeping

The best way to prevent being at risk of secondary exposure is to choose the right controls to prevent or minimise the release of RCS into the air.

The following slides are prescriptive controls for commons tasks that are a minimum requirement on Coral Homes sites, however, all PCBUs must ensure that they have sufficient controls in their SWMS for the tasks being undertaken by their workers.



# Stationary masonry saw brick & concrete chasing / cutting

## Wet cutting control method:

Only use a saw with an integrated water delivery system that continuously feeds water to the blade.

**The saw must be operated and maintained in accordance with the manufacturer's instructions to minimise dust emissions.**

- **Check** hoses are securely connected and not cracked or broken.
- **Ensure** water flows at the rates recommended by the manufacturer. Water flow rates must be sufficient to minimize the release of visible dust.
- **Adjust** nozzles so water goes to the blade and wets the cutting area.
- **Rinse** or replace water filters at recommended intervals.
- **Replace** basin water when it gets gritty or begins to silt up with dust.
- **Inspect** the saw blade before use ensuring it is in good condition and does not show excessive wear.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Stationary masonry saw brick cutting | Nil | Nil |
| Concrete chasing / cutting | P2 half mask is required even with dust suppression measures | Nil |

This table nominates any additional RPE (Respiratory Protective Equipment – i.e. face mask) that is required.

# Cutting of fibro products

**Option 1**
Use a saw equipped with a commercially available dust collection system.

**Option 2**
Use electric or manual fibro shears or score and snap.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Option 1 | P2 half mask is required even with dust extraction measures | Nil |
| Option 2 | Nil | Nil |

# Sanding of plasterboard

Only use a power sander equipped with a commercially available shroud and dust collection system. A P2 half mask must also be worn to prevent inhalation of dust particles and suitable eye protection.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Plasterboard sanding | P2 Half Mask required | P2 Half Mask Required |

# Tile cutting

Option 1: Use a grinder equipped with an integrated water delivery system that continuously feeds water to the grinding surface. While not mandatory, it is recommended to still wear a P2 half mask while using this method.

Option 2: Use a grinder equipped with a commercially available shroud and dust collection system.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Tile Cutting: Option 1 | P2 Half Mask required | Nil |
| Tile Cutting: Option 2 | P2 Half Mask required | P2 Half Mask Required |

# Dry Sweeping

**Dry sweeping  can only be carried out when a P2 half mask respirator is being worn by ALL workers inside the house. The person undertaking sweeping must ensure everyone on site is wearing a mask.**
**If other workers are not wearing a mask, dry sweeping is not permitted.**

**The following safe cleaning methods should be implemented**:

- wet sweeping
- low-pressure water (e.g., hosing down/wiping/mopping of surfaces)
- vacuuming up dust and debris containing silica using an M or H-class vacuum cleaner.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Dry Sweeping | P2 Half Mask required | P2 Half Mask Required |


**THE FOLLOWING IS PROHIBITTED ON CORAL HOMES SITES:**

- DO NOT use compressed air or blowers inside as it can make dust containing RCS airborne.
- DO NOT dry sweep without a mask both indoors and outdoors.

# Concrete drilling and clean out of drilled holes

- Operate and maintain drilling tools in accordance with manufacturer's instructions to minimise dust emissions.
- Wear safety goggles when there is a risk of dust contact or splashing to the eyes.
- Wear a P2 half Mask both indoors and outdoors.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Drilling of concrete and cleaning out of drilled holes in concrete with compressed air | P2 Half Mask required | P2 Half Mask Required |

# Minor works

Minor works such as scraping, chipping, touch-up sanding, even when only performed for a short duration, still require a P2 half mask to be worn when indoors.

| Equipment/task | Indoor RPE requirement | Outdoor RPE requirement |
|---|---|---|
| Minor works | P2 Half Mask required | Nil |

# Points to remember:

- Dry drilling, cutting, grinding and sanding of **engineered stone** is strictly prohibited on Coral Homes construction sites.
- Follow  the right controls to prevent or minimise the release of RCS into the air.
- Wear a tightly fitted P2 Half Mask Respirator where required. When using a P2 Mask you must be clean shaven, otherwise a full head respirator should be worn.
- When dry sweeping indoors or outdoors, everyone on site must wear a mask.
- Educate yourself and others on the dangers of working with silica in the workplace.


Thank You
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