

SAFE WORKING GUIDELINES DUST

1. Introduction

The objective of this procedure is to prevent the occurrence of injury and reduce the severity of injuries resulting from tasks which produce dust being performed by employees and subcontractors of Proline Building Commercial Pty Ltd.

2. Purpose

The purpose of this document is to provide suitable information for the identification, assessment and control of hazards associated with Dust.

3. Definitions

'Plant' means any machinery, equipment, appliance or tool

4. Roles & Responsibilities

Project Managers/ Supervisors and Site Supervisor are responsible for the following:

- Identification, assessment, control and evaluation of airborne hazards;
- Ensuring that workers are well trained, instructed and supervised in dust producing activities and responsibilities including the correct use and maintenance of personal breathing protectors;
- Ensure all employees, subcontractors, clients and other relevant stakeholders wear prescribed hearing protection;
- Ensure that employees working in designated hazardous areas for extended periods of time undergo Health Surveillance testing if required;
- Checking if equipment brought onto the site complies with specifications. This could be carried out by obtaining information available from suppliers;
- Ensure that all plant and equipment is properly maintained, eg dust control measures like vacuums and wet down aids are intact.

Employees / subcontractors are responsible for the following:

- Co-operate with Project Managers/Supervisors and Site Supervisor in implementing the dust management controls;
- Ensure plant and equipment that is properly maintained is only used.
- Ensure Breathing Protection is worn as required.

5. Procedure

Employees and subcontractors are responsible for developing an understanding of an becoming competent in the implementation of risk management principles and practices on site/s.

This is a four phase process:-

1. Risk Identification
2. Risk Assessment
3. Risk Control
4. Risk Evaluation

5.1 Risk Identification

Identification of risks associated with Noise should be undertaken by the following means:

- Consultation with employees / subcontractors
- Observation of work practices
- Inspections of the task and associated work areas
- Examine workplace injury records to assess what injuries have occurred to what tasks being carried out.

5.2 Risk Assessment

Identified hazards should then be prioritized according to the severity of injury, frequency of task and probability whilst performing the task. When assessing the risk, consideration will be given to:

- Occupation or job/task of the person exposed
- Work environment
- Duration and frequency
- Previously known breathing impairment.

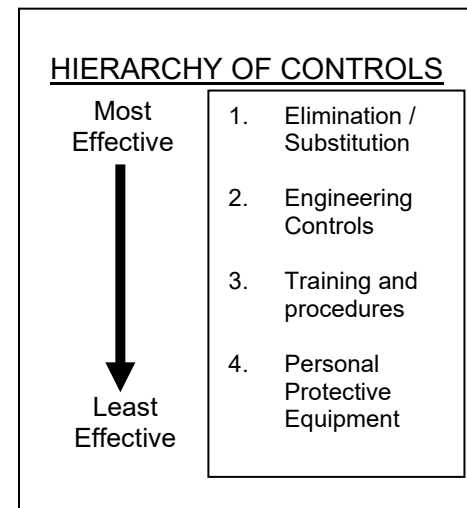
5.3 Risk Control

It is the responsibility of all employees and subcontractors involved in the Dust hazard management process to ensure that they co-operate with control measures that are put in place by Proline. Risk Control is the means for minimizing or eliminates the identified risk and is carried out using the following hierarchy of control:

- *Eliminate the risk by ceasing the hazardous component or activity*
- *Substitute a less harmful alternative hazard substance or process*
- *Isolate the hazard at source using engineering means*
- *Introduce administrative controls to minimize exposure*
- *Use of Personal Protective Equipment*

Control options should include the following:

- Remove the dust hazard or its source totally from the workplace
- Modify the plant or machinery – ie fit water applicators or vacuums
- Modify the workplace layout – restrict access / fully enclose area
- Use of devices to protect the breathing
- Use particular training or instruction



Types of Dust

Extract from of Safework.nsw.gov.au

Wood Dust

Reported health effects associated with exposure to dust from wood products include:

- *skin disorders such as allergic dermatitis – certain timbers are known to produce adverse health effects and sensitisation (see: Further information for a Health and Safety Executive, UK, information sheet on toxic woods)*

- *asthma and impaired lung function*
- *nose irritation, rhinitis (runny nose), violent sneezing, blocked nose and nose bleeds*
- *throat irritation, and sore and watering eyes*

A rare type of nasal cancer has also been reported in people who have worked with hard woods in very dusty wood-working environments with little or no dust control in place.

Managing the risks

1. Alternative woods

Suppliers of wood and speciality timbers should provide information, eg a safety data sheet (SDS), about any potential health effects of the wood being used. Employers should consider using woods that have similar strength or decorative effects but are less hazardous.

2. Controlling the build-up of wood dust

The total elimination of wood dust from a wood-working environment is not usually practicable, however, the health risk associated with exposure to dust from wood products can be minimised through:

- *work processes that produce minimum dust, eg using a plane rather than a sander*
- *ensuring all dust producing processes are fitted with local exhaust ventilation*

3. Local exhaust ventilation system

LEV is the standard industry practice. The following points may assist when reviewing its design and effectiveness:

- *avoid long lengths of flexible ducting that can be easily damaged*
- *cap or close any unused openings or branches to maximise dust capture*
- *do not use open ducts to try to capture the dust as it is generated, this is ineffective*
- *keep hard ducting short and simple, avoid right angle bends*



4. Monitoring dust levels

If you are uncertain about health risks, you may need personal air monitoring to regularly assess the levels of exposure. National Exposure Standards have been determined for hard woods and soft woods (see: Further information, SafeWork Australia).

5. Preventative maintenance

Plant and equipment should be kept in good condition and the LEV system maintained to work effectively. Establish a maintenance and repair program that includes regular:

- *checks for damage to ducting and dust collectors (also known as bag/sock filters)*
- *replacing or emptying waste collection bags*
- *inspecting ductwork and fans for dust build up*
- *inspecting fans for unusual noise or vibration indicating a problem*
- *(annual) overhaul of the LEV system by a competent person*

Records of inspections, repair and maintenance should be recorded as part of the program, for the life of the LEV.

6. Housekeeping

Simple changes to work practices can minimise the level of wood dust in the workplace, for example:

- *regularly cleaning or emptying dust collection equipment*
- *using methods for cleaning up such as damping down before sweeping, or using an industrial vacuum cleaner fitted with a HEPA filter*
- *implementing a 'clean up as you go' policy*
- *do not use compressed air to clear work benches or to blow dust off wood products except for inaccessible areas of plant*
- *do not use compressed air to remove dust from skin or clothing*



7. Providing respiratory protective equipment

When other dust control measures are not practicable, a respiratory protective device (RPD) suitable for particulates should be worn (it must be at least a Class P1 respirator). Australian/New Zealand Standard [AS/NZS 1715](#) provides comprehensive guidance on how to select the correct RPD. Ensure that the equipment meets an appropriate standard. Look for Australian Standard markings (see [AS/NZS 1716](#)) or equivalent on the respirator or its container.

8. Other safety measures

- Obtain health and safety information from the wood supplier or manufacturer (the MSDS) and make it readily accessible
- Inform workers on the hazards and risks associated with exposure to wood dust
- Train workers on the correct use of workplace control measures
- Supervise workers to ensure that the adopted control measures are being used correctly

Reduce the chance of dust explosion by keeping ignition sources such as flame and sparks away from areas where dust is being generated.

Silica Dust

Where is crystalline silica found?

Engineered materials containing silica, such as manufactured stone, are used in kitchen benches and counter tops. Workers will also come across silica when excavating or tunnelling through sandstone.

Typical crystalline silica levels in different materials are:

- sand and sandstone: 70-100%
- manufactured stone: 93% or higher
- granite: 20-45% (typically 30%)
- concrete and mortar: 25-70%
- calcium-silicate bricks: 50-55%
- slate: 20-40%
- brick: up to 30%
- fibre cement sheets: 10-30%
- demolition dust: 3-4%
- marble: 2%
- limestone: 2%

The harms

Exposure to silica dust can lead to a number of serious illnesses including:

- silicosis – scarring of the lung that can result in a severe shortness of breath and is not reversible. Severe cases can be terminal or require a lung transplant
- lung cancer
- kidney disease
- chronic obstructive pulmonary disease (COPD).

The workplace exposure standard (WES) for respirable crystalline silica (RCS) dust is 0.05 mg/m³ as a time-weighted average airborne concentration over 8 hours.

How to protect yourself and workers

Eliminate or substitute the risk

Remove the hazard completely, change the design, replace the hazard with products containing less crystalline silica.

For example, replace engineered stone containing high levels of silica with materials containing no silica or much lower levels of silica.

Isolate the hazard

Isolate workplace areas where dust is generated from other workers, enclose processes, or isolate the hazard from anyone exposed to it.

For example, with barriers.

Engineering controls

Use local exhaust ventilation systems to remove dust at the source and ensure such ventilation is correctly placed and operates at effective flow rates.

Use dust capture systems on tools to reduce dust exposure of mobile workers.

Ensure regular housekeeping in work areas to prevent the accumulation of dust and use H or M class vacuums for safe clean up.

Mandatory exposure standards

From 1 July 2020:

- *the workplace exposure standard (WES) for respirable crystalline silica (RCS) dust is 0.05 mg/m³ (eight-hour time-weighted average)*
- *on-the-spot fines apply for PCBU's failing to notify SafeWork NSW of an [adverse health monitoring report](#).*

Health monitoring

PCBU's (employers) must arrange regular health monitoring for workers where exposure to crystalline silica results in a significant risk to their health.

Insurance and Care NSW (iCare) offers subsidised health monitoring (chest X-rays and lung capacity tests) to businesses across NSW through its [Lung Screen service](#).

It may take time for signs and symptoms of silicosis to develop and be identified during health monitoring.

A single clear health monitoring report does not mean a worker won't develop silicosis in the future.

It also doesn't demonstrate their work practices are effective at controlling exposure to respirable crystalline silica.

For this reason, workers exposed to crystalline silica presenting a significant risk to their health must have regular health monitoring. Dust control measures should be implemented and reviewed regularly.

Administrative controls

Use safe work procedures, minimise the time workers perform higher exposure tasks, alert workers and visitors to danger, and provide information, training and supervision.

Other Controls

Use of dust extractors / vacuums



Wetting Down Stockpiles – especially in high wind days



Covering Stockpiles with plastic



Types of Breathing PPE:



5.4 Risk Evaluation

It is important to evaluate the effectiveness of the control measures implemented, to ensure that they are effective and that they do not lead into the introduction of additional hazards within the work environment. An evaluation of control measures must be carried out by the Site Supervisor during the tasks Safe Work Method Statement Reviews.

6. Training

The Systems Manager will train employees during WHS EMS QA Seminars to ensure that employees can identify risky activities and receive appropriate training.

Project Manager/Supervisors should ensure Site Supervisor train employees / subcontractors in identifying, assessing and controlling dust producing activities during Safe Work Method Statement training for any dust related type work activities. Site Supervisor should ensure the person/s being trained understand the reason for performing the task with the least amount of risk, can recognise the risks and decide the most appropriate method to complete the task and can perform the task in the correct way.

7. Review & Evaluation

In order to ensure this procedure remains effective, it will be reviewed by Senior Management on an annual basis or in the event of an injury or near miss resulting from any noisy activity, changes in legislation or if raised by an employees concern.

8. References / Legislation

- Work Health & Safety Act 2011

Proline Building Commercial Pty Ltd

- Work Health & Safety Regulation 2017
- Workcover Guide - How to Prevent Silicosis

9. Version Control

<i>Date</i>	<i>Version</i>	<i>Owner</i>	<i>Comments</i>
12.03.09	1	Michelle Noy	For Issue
11.11.11	2	Michelle Murphy	Following External 3 rd Party Audit
18.04.12	3	Michelle Murphy	Changes in legislation / code of practices
05.06.15	4	Michelle Murphy	Following Management Review
01.09.17	5	Michelle Murphy	General Review
01.06.18	6	Michelle Murphy	Changes in legislation
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