

**COAL MINE HEALTH AND SAFETY ACT 2002**

**COAL MINE HEALTH AND SAFETY REGULATION 2006**

Notice – Airborne Dust Limits, Collection and Analysis

I, ROBERT REGAN, Chief Inspector under the Coal Mine Health and Safety Act 2002, pursuant to clauses 3, 38(1)(b), 38(1)(d), 38(1)(e), 38(1)(f) and 38(1)(i) of the Coal Mine Health and Safety Regulation 2006 hereby specify:

**Limits**

1. the following limits for the concentration of airborne dust:

(a) Specified Limits for Respirable Dust – Underground Mines:

The specified limit for quartz-containing dust is 0.12 milligrams of respirable quartz and the specified limit for respirable dust, other than quartz-containing dust, is 2.5 milligrams. These limits are with respect to the mass of respirable dust per cubic metre of air sampled and apply only to the underground parts of underground mines. The limits below for open cut mines apply to the surface parts of underground mines.

(b) Specified Limits for Respirable Dust – Open Cut Mines:

The specified limit for quartz-containing dust is 0.1 milligrams of respirable quartz and the specified limit for respirable dust, other than quartz-containing dust, is 2.5 milligrams. These limits are with respect to the mass of respirable dust per cubic metre of air sampled. These limits also apply to coal preparation plants.

(c) Specified Limits for Inhalable Dust – All Coal Operations:

The specified limit for inhalable dust is 10 milligrams. This limit is with respect to the mass of inhalable dust per cubic metre of air sampled.

**Collection and Analysis**

2. the following criteria for arrangements for the regular collection and analysis of samples, by a licensed person independent of the operation, of airborne dust from the breathing zone of people whose health may be affected by the dust:

(a) Frequencies of sampling, places and persons to be sampled

The frequency of sampling, places and persons to be sampled in each part of a mine is not to be less than as specified in the Table below according to the operations in that part of the mine.

Table of Locations, Frequencies and Persons for Sampling

<i>Column 1 Location</i>	<i>Column 2 Frequency of sampling respirable dust</i>	<i>Column 3 Frequency of sampling respirable quartz -containing dust</i>	<i>Column 4 Frequency of sampling inhalable dust</i>	<i>Column 5 Persons to be sampled</i>
(a) In each part of a mine where longwall mining is carried out.	Each producing shift at intervals not exceeding six months.	Each producing shift at intervals not exceeding six months.	Each producing shift at intervals not exceeding twelve months.	Samples to be collected from the breathing zone of at least five persons including, where possible: <ul style="list-style-type: none"> <li>• A Shearer operator.</li> <li>• Two powered support operators.</li> <li>• A deputy.</li> <li>• One other person selected by the Manager of Mining Engineering.</li> </ul>
(b) In each part of a mine where a continuous mining machine operates.	Each producing shift at intervals not exceeding twelve months.	Each producing shift at intervals not exceeding twelve months.	At intervals not exceeding twelve months.	Samples to be collected from the breathing zone of at least five persons including, where possible: <ul style="list-style-type: none"> <li>• A continuous miner driver</li> <li>• A sideman or cable handler</li> <li>• A shuttle car driver</li> <li>• A deputy, and</li> <li>• A bootend attendant or other person selected by the Manager of Mining Engineering.</li> </ul>
(c) In any part of an underground mine where cement products are being applied.			At intervals not exceeding twelve months.	Samples to be collected from the breathing zone of at least two persons including, where possible: <ul style="list-style-type: none"> <li>• Persons loading cement into a mixer.</li> <li>• Persons spraying or applying cement products.</li> </ul>

<i>Column 1 Location</i>	<i>Column 2 Frequency of sampling respirable dust</i>	<i>Column 3 Frequency of sampling respirable quartz -containing dust</i>	<i>Column 4 Frequency of sampling inhalable dust</i>	<i>Column 5 Persons to be sampled</i>
(d) In any place in or about an underground mine other than those referred to in a), b) or c) above, but including crusher stations.	At intervals not exceeding twelve months.	At intervals not exceeding twelve months.	At intervals not exceeding twelve months.	Samples to be collected from the breathing zone of at least one person.
(e) In any place in or about an open cut mine where dust may be present.	At intervals not exceeding twelve months.	At intervals not exceeding twelve months.	At intervals not exceeding twelve months.	Samples to be collected from the breathing zone of at least five persons including where possible. <ul style="list-style-type: none"> <li>• Drill operators, shotfirers and stemmers.</li> <li>• Mobile equipment operators.</li> </ul>
(f) In any place in or about a coal preparation plant where dust may be present.	At intervals not exceeding twelve months.	At intervals not exceeding twelve months.	At intervals not exceeding twelve months.	Samples to be collected from the breathing zone of at least five persons where available.

## Note:

- (1) The Table gives minimum locations, frequencies and persons for sampling only. The Nominated Operator has an obligation to maintain a workplace that is compliant with the airborne dust requirements pursuant to the Coal Mine Health and Safety Regulation 2006. Where difficult, dusty, or unusual circumstances occur then the Nominated Operator is obliged to implement more rigorous sampling arrangements suitable to the circumstances.
- (2) Any further samples required by regulation will be additional to these frequencies.
- (3) Persons sampled must, as far as possible, remain at the same job for the duration of the test.
- (4) In the case where the Manager of Mining Engineering selects the person to be sampled he must select those activities where persons are likely to be exposed to airborne dust.
- (5) Failed samples are to be re-sampled.
- (6) A Government Official may direct the Nominated Operator to arrange for a licensed person to collect samples of airborne dust and to analyse those samples. The direction may include the location, time and working conditions for the taking of samples.

## (b) Determination of respirable dust

Samples are to be collected and analysed in accordance with Australian Standard AS2985 (Workplace Atmospheres – Method for Sampling and Gravimetric Determination of Respirable Dust), except where varied by this notice.

## (c) Determination of respirable quartz

The preferred methods of determination of respirable quartz are one of either ‘The Potassium Bromide Disc Infra Red Method’ or ‘The X-ray Diffraction Method’ as described in “Guidelines for Determination of Respirable Quartz”, publication MDG 3006 MRT 6, published by the Department of Primary Industries.

## (d) Determination of inhalable dust

Samples are to be collected and analysed in accordance with Australian Standard AS3640 (Workplace Atmospheres – Method for Sampling and Gravimetric Determination of Inhalable Dust), except where varied by this notice.

## (e) Sampling

Where practicable, sampling should commence at the start of the shift and cease at the end of the shift and be as close as practicable to the working place, for example, “crib room to crib room”. The minimum sampling period is five hours.

**Definitions**

## 3. In this notice:

“airborne dust” includes both respirable and inhalable dust, it is also known as “airborne particulate matter” or “airborne particulates”;

“quartz-containing dust” means respirable dust which contains five percent or more by mass of respirable quartz;

“respirable dust” has the same meaning as it has in Australian Standard 2985-2004(Workplace Atmospheres – Method for Sampling and Gravimetric Determination of Respirable Dust);

“respirable quartz” means the quartz present in respirable dust;

“inhalable dust” has the same meaning as it has in Australian Standard AS3640 (Workplace Atmospheres – Method for Sampling and Gravimetric Determination of Inhalable Dust.

This notice commences on the 22nd of December 2007.

Dated this 17th day of December 2007

ROBERT REGAN,  
Chief Inspector