



31 December 2004

### **NOHSC declares amendments to the exposure standards for crystalline silica**

The National Occupational Health and Safety Commission (NOHSC) has declared amendments to the adopted national exposure standards for atmospheric contaminants in the occupational environment. Notification of the amendments appears in the Australian Government Chemical Gazette of 7 December 2004 and the Australian Government Notices Gazette of 8 December 2004.

These amendments update the national exposure standards maintained by NOHSC by replacing existing standards for three forms of crystalline silica - quartz, cristobalite and tridymite. The date of effect for these amendments is **1 January 2005**.

Certain **exposures to crystalline silica** can cause serious harm to human health. Prolonged exposure to respirable crystalline silica can cause silicosis. **The revised national exposure standard for crystalline silica has changed for quartz, from 0.2 mg/m<sup>3</sup> to 0.1 mg/m<sup>3</sup>.**

The revised exposure standard for all three forms of crystalline silica should be measured in accordance with the new methodology in Australian Standard Workplace Atmospheres – Method for sampling and gravimetric determination of respirable dust AS2985-2004. These changes have been recommended to reduce the potential incidence of silicosis.

#### **Background**

Crystalline silica — also known as silicon dioxide (SiO<sub>2</sub>) — is the basic component of sand, quartz and granite rock and is found in varying proportions in aggregates, sand, mortar, concrete and stone, and is also in the air and the soil. Processes which may give rise to airborne concentrations of crystalline silica dust include hard rock mining, excavation, tunnelling and earthworks, construction, foundry operations, ceramics production, stone works, refractory brick production, abrasive blasting, agricultural ploughing and harvesting, and the production of asphalt, agricultural chemicals, abrasives, glass and paint. If the dust given off from working with these materials is fine enough to be breathed into the lungs, it is termed “respirable”.

The University of Western Australia (UWA) undertook a review of the crystalline exposure standard on behalf of NOHSC. The peer-reviewed UWA report arising from the review forms the main scientific documentation that supports the amendments to the National Exposure Standards.

NOHSC invited representations from any interested persons to identify issues of concern and those requiring attention between August 2003 and November 2003. NOHSC established the tripartite Crystalline Silica Review Group to review representations received and more recent, relevant scientific literature published since the UWA report was finalised. NOHSC also

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organised industry workshops in conjunction with the Australian Chamber of Commerce and Industry to identify cost implications of the exposure standards recommended by NOHSC

Further background and details about the updates, including the amendment instrument, are available at

<http://www.nohsc.gov.au/OHSLegalObligations/HazSubstancesAndDngGoods/NES/exposuresstandards.htm#1>

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