

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

B. Asbestos Exposure Assessment and Control in Occupational Settings

No./Title

a-5. Guidance note on the membrane filter method for estimating airborne asbestos fibres

Author/Contributor

National Occupational Health and Safety Commission (NOHSC)

Bibliographic ID

Introduction

Asian context

This method can be used not only for measuring airborne asbestos concentration in the workplace but also for clearance testing of asbestos abatement sites in Australia. This method shows an example for Asian countries that the PCM-based method can be used for the site assessment for reoccupation of asbestos abatement sites, although the US. EPA adopts the TEM-based method for same purpose in Asbestos Hazard Emergency Response Act (AHERA).

Critical appraisal

Detailed sampling strategies according to the purpose are well discussed in this method. Several technical processes such as microscope adjustment procedure and calibration are well described in this method. This method does not provide positive confirmation of asbestos fibers. Alternate differential counting techniques should be used if discrimination is desirable.

Unique keywords

Abstract

Background: This sampling and analytical method was issued to provide laboratories and analysts with a consistent methodology for the sampling and analysis of airborne asbestos fibers in workplaces by the NOHSC in Australia.

This method measures the airborne concentration of countable fibers using PCM. Countable fibers are defined as particles with length $>5\ \mu\text{m}$, width $<3\ \mu\text{m}$ and aspect ratio (length: width ratio) $>3:1$. The collection of airborne asbestos fibers using calibrated sampling pumps with mixed-cellulose ester (MCE) filters and the analysis by PCM are described.



Annotation

Fact 1

- Annotation is not provided for this factsheet.

Fact 2



Fact 3



Fact 4



Fact 5



References

http://www.safeworkaustralia.gov.au/AboutSafeWorkAustralia/WhatWeDo/Publications/Documents/236/GuidanceNote_MembraneFilterMethodForEstimatingAirborneAsbestosFibres_2ndEdition_NOHSC3003-2005_PDF.pdf