

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

B. Asbestos Exposure Assessment and Control in Occupational Settings

No./Title

a-8. Interim TEM analytical methods

Author/Contributor

Environmental Protection Agency (EPA), US

Bibliographic ID

40CFR Part 763 Appendix A to Subpart E . Fed. Reg. 52(210), 41857-41894. 1987

Introduction

Asian context

As a standard testing method for clearance testing of asbestos abatement sites, the US, EPA applies this TEM-based method. When introducing the TEM-based method as a national standard testing method, its cost and effectiveness should be taken into account. Although there are some controversies on using the PCM-based method for clearance testing, many developed countries did not adopt the TEM-based method like the US.

Critical appraisal

This method specifies a detailed direct TEM analysis method which is generally applied in other TEM methods in the US. The analysis results can not be directly compared with current occupational exposure limits on asbestos.

Unique keywords

Abstract

Background: This method, generally called the AHERA TEM, provides detailed procedure for sampling and analyzing asbestos in air using TEM. This method has been issued by the US. EPA to determine completion of response actions such as asbestos abatement in school buildings under the Asbestos Hazard Emergency Response Act (AHERA) in the US.

Objective: For abatement clearance, five or more area air samples inside the containment are compared with five or more area air samples collected outside the containment. Countable fibers are defined as particles with length $>0.5\ \mu\text{m}$, width $>0.002\ \mu\text{m}$ and aspect ratio (length: width ratio) $>5:1$. Detailed sampling and pretreatment and analysis procedures are specified.



Annotation

Fact 1

- Annotation is not provided for this factsheet.

Fact 2



Fact 3



Fact 4



Fact 5



References

<http://www.epa.gov/asbestos/pubs/2003pt763.pdf>