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# **NIOSH**

## **Comments to EPA**

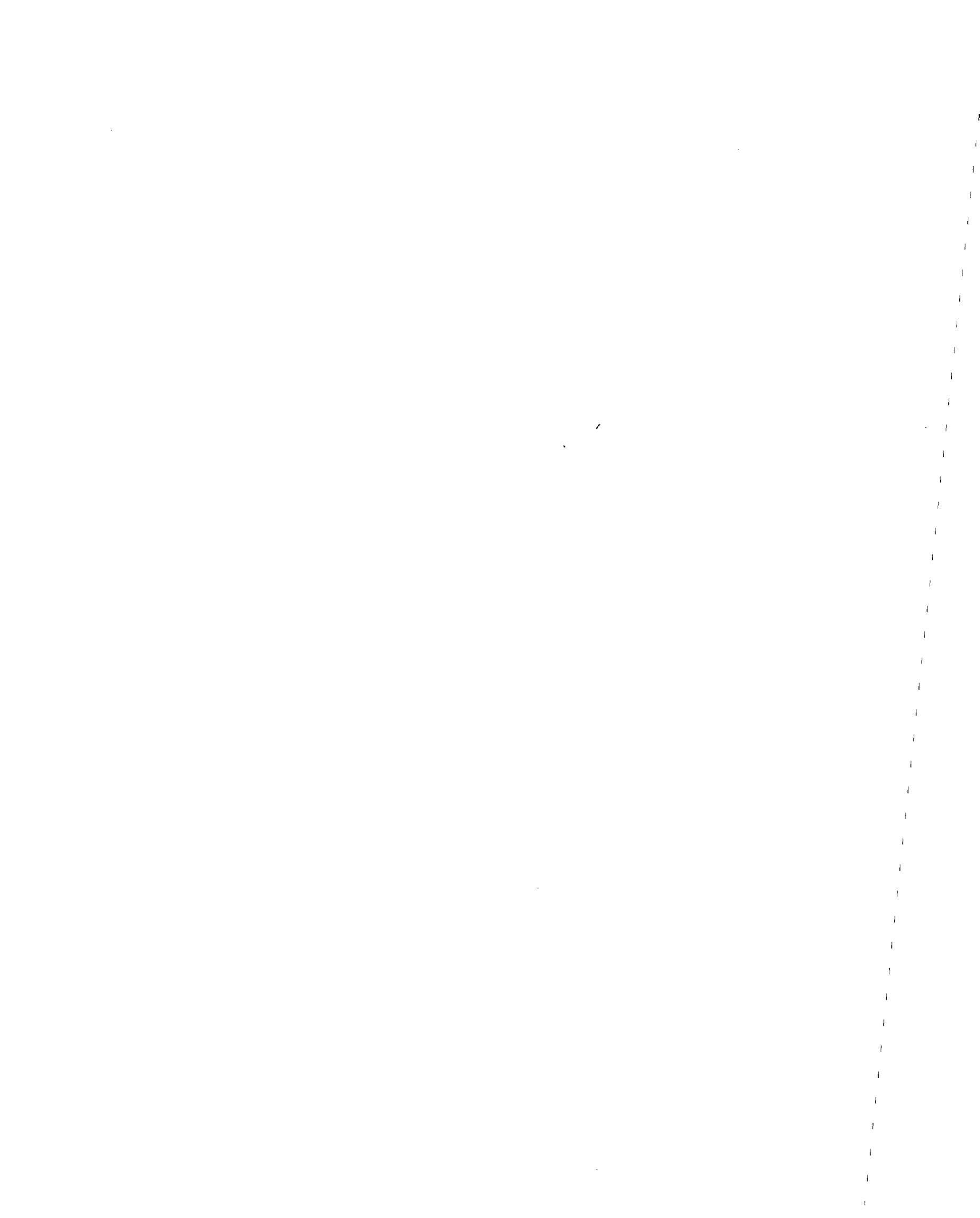
**COMMENTS OF THE  
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH  
ON  
THE ENVIRONMENTAL PROTECTION AGENCY'S  
NOTICE OF PROPOSED RULE REVISION, INCLUDING DISPOSAL OF ASBESTOS  
CONTAINING MATERIALS REMOVED FROM SCHOOLS**

**40 CFR Parts 61 and 763  
Docket No. A-88-28**

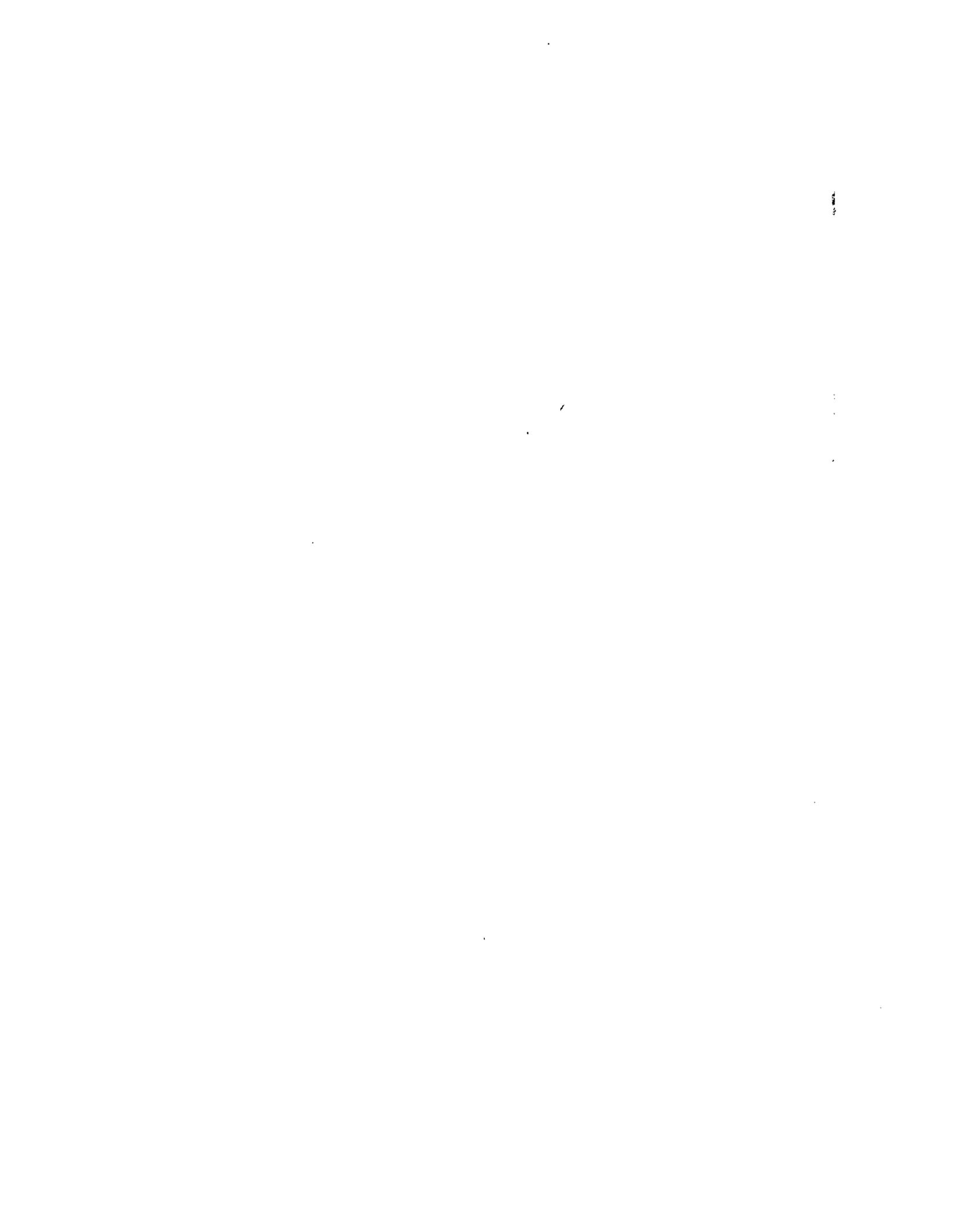
**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
National Institute for Occupational Safety and Health**

**03/06/89**

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16. Abstract (Limit: 200 words) This testimony concerned the proposal of the Environmental Protection Agency (EPA) to revise rules pertaining to the disposal of asbestos (1332214) containing materials from schools and the monitoring of asbestos particles in the air. In the first issue, the monitoring of emissions from asbestos, milling, manufacturing and fabricating, the EPA revisions suggested a visual inspection be made for a period of 15 seconds per day. NIOSH called for a more objective means of monitoring rather than using subjective visual observations. NIOSH suggested direct reading instruments such as continuous particulate monitors which are light scattering instruments, for this purpose. The second issue concerned the disposal of asbestos containing material such as packing, gaskets, asphalt roofing and vinyl tiles in good condition. The suggested revision stated that such material need not be removed before demolition if it cannot become friable during demolition. NIOSH commented that asbestos roofing and floor tiles, although in good condition prior to removal operations, emitted fibers on aging and when mechanical forces were applied. NIOSH studies made during removal operations have indicated that personal and area samples exceeded both NIOSH's Recommended Exposure Level and the OSHA Permissible Exposure Limit. NIOSH urged that all such materials be considered friable under any type of demolition or removal attempt.				
17. Document Analysis a. Descriptors				
b. Identifiers/Open-Ended Terms NIOSH-Publication, NIOSH-Author, NIOSH-Testimony, Niemeier-R-W, Air-quality-monitoring, Air-sampling-techniques, Air-sampling-equipment, Asbestos-products, Airborne-fibers, Fibrous-dusts, Asbestos-removal				
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## Comments to EPA

March 6, 1989

Central Docket Section (LE-131)  
South Conference Center  
Room 4  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

Attn: Docket Number A-88-28

Dear Sir/Madam:

The National Institute for Occupational Safety and Health (NIOSH) has reviewed the Federal Register [54 FR 912] regarding EPA's notice of proposed rule revision on asbestos NESHAP revision, including disposal of asbestos containing materials removed from schools.

NIOSH is concerned with the rulemaking in regard to the following provisions:

### Issue

EPA indicates [54 FR 929] that, to control emissions from asbestos milling, manufacturing, and fabricating, the sources are to be monitored by a visual inspection for 15 seconds a day for "visible emissions". There are similar references [54 FR 931] to "no visible emission" to control waste sites and local exhaust emissions from asbestos stripping activities. Waste site operations are offered the option of covering their asbestos fill to a depth of 6" every 24 hours instead of meeting the "no visible emission" criteria.

### Concern

The use of visible emissions would be a subjective, nonspecific, and insensitive method to evaluate exposures to submicron asbestos fibers. The assessment would depend on the person performing the inspection, how the inspection was performed, and the size distribution and concentration of the dust emitted. The emissions from asbestos manufacturing equipment should be inspected frequently with a more objective method of evaluation specified.

NIOSH suggests<sup>1</sup> that direct reading instruments, such as continuous particulate monitors (e.g., light scattering instruments), are objective and quantifiable methods for monitoring the emissions from air cleaners and

other types of equipment. Although these instruments respond to all types of dust (as does visual monitoring), they have the advantage of improved sensitivity. Also, continuous particulate monitors should provide timely warning of air cleaner and other equipment failures, and can be used as an alarm. One instrument<sup>1</sup>, the fibrous aerosol monitor (FAM), is more specific for fibrous dust. The FAM could be used for frequent inspection of various types of equipment, but probably not for continuous monitoring purposes because it is not quantifiable.

In conjunction with visual inspections and the use of any type of monitoring instrument, a program using an acceptable quantifiable method<sup>2</sup> for asbestos sampling and analysis should be specified. This would be the only way to ensure that the continuous monitoring program in a visual inspection program was effective.

#### Issue

EPA states [54 FR 928] "... However, asbestos-containing material need not be removed before demolition if: ... (iii) They are materials that cannot become friable during demolition such as, packing, gaskets, asphalt roofing and vinyl tiles in good condition."

#### Concern

It should be recognized that asbestos roofing<sup>3</sup> and floor tiles<sup>4</sup> emit fibers upon aging and when mechanical forces are applied. A NIOSH study<sup>5</sup> that evaluated asbestos emissions during the removal of asbestos shingle roofing, found personal and area samples that exceeded both NIOSH's recommended exposure level (REL) and OSHA's Permissible Exposure Limit (PEL). These materials should be presumed to be friable under the conditions of renovation and demolition and exempted from control only if proven otherwise in some specific circumstances.

If you have any questions or require additional information, please call me at FTS 684-8302.

Sincerely yours,

Richard W. Niemeier, Ph.D.  
Acting Director  
Division of Standards Development  
and Technology Transfer

5 Enclosures

cc:

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#### REFERENCES

1. BARON, P.A. Modern Real-Time Aerosol Samplers. Appl. Ind. Hyg. 3(3):97-103 (1988).
2. NIOSH [1987] Manual of Analytical Methods. Fibers Method #7400 3rd Edition, U.S. Dept. of Health and Human Services, U.S. Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health.
3. LOHRER, W. Asbestos Emissions from Asbestos Cement and Floor Coverings. Staub Reinhalt. Luft 39 (1): 417-422 (1979).
4. NIOSH [1984] Health Hazard Evaluation Report Asbestos Shingle Tear-Off, Rockford, Illinois, HETA 84-321-1590.

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