

[Federal Register: August 1, 1994]

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DEPARTMENT OF ENERGY
ENVIRONMENTAL PROTECTION AGENCY

[OPPTS-62136; FRL-4744-1]

Advisory Regarding Availability of an Improved Asbestos Bulk
Sample Analysis Test Method; Supplementary Information on Bulk Sample
Collection and Analysis

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of advisory.

SUMMARY: This notice announces the availability of an improved asbestos
bulk sample analysis test method for use with bulk samples collected
for identification of asbestos-containing materials under the Asbestos
Hazard Emergency Response Act (AHERA) regulations and the asbestos
National Emission Standard for Hazardous Air Pollutants (NESHAP).
Supplementary information on the collection of bulk samples and
analysis of these samples by the improved method is also provided.

FOR FURTHER INFORMATION CONTACT: Susan B. Hazen, Director,
Environmental Assistance Division (7408), Office of Pollution
Prevention and Toxics, Environmental Protection Agency, 401 M St., SW.,
Washington, DC 20460, Telephone: (202-554-1404), TDD: 554-0551.

SUPPLEMENTARY INFORMATION: EPA recently developed an improved test
method entitled "Method for the Determination of Asbestos in Bulk
Building Materials" (EPA/600/R-93/116). Copies of the test method are
available by telephoning the National Technical Information Service
(NTIS) at (800)553-6847. The NTIS identifier for the test method is
PB93-218576.

The test method provides clarifications and improvements to the
1982 EPA "Interim Method for the Determination of Asbestos in Bulk
Insulation Samples" (as found in 40 CFR part 763 Appendix A to Subpart
F). Specifically, use of the improved method can provide more precise
analytical results especially at low asbestos concentrations, enhanced
analysis of floor tiles which may contain thin asbestos fibers below
the limits of resolution of the polarized light microscope (PLM), and
clearer instruction on the analysis of bulk materials, particularly
where multiple layers are present.

The 1982 method is limited in that it does not provide guidance for
analyzing materials that contain thin (<0.25 micrometers) asbestos

fibers. As a consequence, floor tiles which were analyzed according to the 1982 method and for which negative results were reported may actually contain undetected asbestos. At this time EPA does not have data to support identification of other materials which may have thin fibers.

The improved method addresses the thin fiber limitation of the 1982 method by providing directions for using transmission electron microscopy (TEM). The test method includes improved procedures for reducing matrices so that fibers may be made available for microscopic analysis. The improved method also directs laboratories to analyze the individual strata or layers and report a single result for each layer. The 1982 method provided that the analytical result for a multi-layered sample with discrete strata be reported as one result across all layers. Because the 1982 method allowed the result to be reported as one number, multi-layered samples which may contain asbestos in a single layer may have been reported by laboratories as nonasbestos-containing. The improved method directs laboratories to analyze and report a result for individual layers. Thus, more than one result will be reported for multi-layered samples, and a multi-layered sample which previously was determined to be nonasbestos-containing may now have layers which will be classified as asbestos-containing based on the presence of asbestos in greater than 1 percent.

In light of the availability of the improved method, EPA recommends that local education agencies (LEAs) use the improved method in place of the 1982 procedures as found in 40 CFR part 763 Appendix A to Subpart F. EPA has made the determination that the improved method is more capable of producing accurate results than the 1982 protocol and thus serves as a preferred substitute method. Further, EPA recommends that LEAs which have PLM laboratory results indicating floor tiles to be nonasbestos-containing (asbestos present in less than or equal to 1 percent) reconsider whether these materials may have thin asbestos fibers. LEAs should also consider whether other materials sampled previously may contain multiple layers, whether each of these layers was analyzed separately, and whether results were reported separately by layer. (Note: For purposes of this analysis, drywall or gypsum board is considered a single-layered material.) LEAs are encouraged to determine from sampling and analysis records whether multi-layered systems were sampled and analyzed separately. (A system is an integrated group of building components which form a unit, i.e., a wall system composed of a browncoat layer as well as other plaster layers.) Although there is no modification of the AHERA requirements at this time and results obtained by following the 1982 protocol and the AHERA sampling rules meet the AHERA legal requirements, it may be prudent for LEAs to assume floor tiles and multi-layered materials with previously negative results to be asbestos-containing or resample and analyze them by the 1993 EPA Test Method.

This approach should be considered for the following circumstances: (1) Floor tiles which may contain thin fibers and which were analyzed under the 1982 PLM method and found not to be asbestos-containing; and (2) materials such as hard wall and acoustical plaster, stucco or other similar multi-layered materials or systems which were not analyzed and reported by layers (discrete strata). LEAs are reminded that they are also required to comply with the asbestos NESHAP regulation when disturbing asbestos-containing building materials. Although building

owners/operators are not required by the asbestos NESHAP to collect bulk samples of building products prior to disturbance, they are responsible for knowing whether asbestos is contained in the building product. Often, identification of asbestos content may be obtained only by sampling and analyzing the material. EPA has provided guidance on how to sample and interpret analytical results for multi-layered samples for the asbestos NESHAP in the Federal Register notice of January 5, 1994 (59 FR 542). Before undertaking activities which might trigger asbestos NESHAP requirements, it is recommended that LEAs consider resampling multi-layered materials which have been found to be nonasbestos-containing for AHERA purposes or assume them to be asbestos-containing prior to disturbance according to the guidelines set forth in this current notice, in the January 5, 1994 NESHAP Federal Register notice, and in the improved analytical method to avoid potential violation of the asbestos NESHAP.

All previous positive results (asbestos present in greater than 1 percent) are acceptable regardless of the EPA method by which they were sampled or analyzed. For AHERA and NESHAP purposes, materials may always be assumed to be asbestos-containing in lieu of sampling and analysis.

EPA is in the midst of preparing a guidance bulletin to assist LEAs in implementing the recommendations discussed in this notice. The guidance will be available in summer 1994. To obtain a single copy of the bulletin, you must send a written request for the "Asbestos Sampling Bulletin" and a 9 1/2 inch by 12 inch self-addressed and stamped envelope (at least \$0.75 in postage applied to the envelope) to: TSCA Assistance Information Service, Environmental Assistance Division (7408), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Requests for the bulletin that are not accompanied by the self-addressed and stamped envelope will not be honored. Multiple copies are not available. Copies will be distributed only in the previously described manner.

Dated: July 21, 1994.

Lynn R. Goldman,
Assistant Administrator, Office of Prevention, Pesticides and Toxic
Substances.

[FR Doc. 94-18665 Filed 7-29-94; 8:45 am]

BILLING CODE 6560-50-F