method as before, it being with a careful examination of the sample using a stereo-microscope, then proceed.

The improved method builds on the previous (1982) "Interim" Pointing High Microscope (PHM).

and resolution limits of pointing high microscopes.
- in which small thin fibers are present, but are frequently not detected at the magnification

aspercular (not the)

where the presence of asbestos is detected by a matrix of some kind (e.g., vinyl or

> 10%)

that are known to contain asbestos fibers, but in which the asbestos percentage is "low."

Note that under the AHERA and NESHAP regulations, EPA can assume that certain materials are

such that the asbestos is considered to be an acceptable alternative to sampling.

may contain asbestos. EPA determined that these materials are asbestos in asbestos-containing floor base, but also provides better analytical results in building materials that

AHERA (Regulations) in which the asbestos are identified. EPA and the Environmental Protection Agency

(1) To clarify EPA's guidance and requirements for the collection and analysis of bulk samples of multi-layered materials, particularly in schools. EPA recommendations for the collection and analysis of bulk samples of multi-layered materials, particularly in schools:

(2) To clarify EPA's guidance and requirements for the collection and analysis of bulk samples of multi-layered materials, particularly in schools.

The method was developed by EPA primarily for two reasons:

This bulletin was developed to improve the possibility of non-compliance with EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations. An educational institution may choose to adopt the "Interim" method of the method has not changed, but allows for the determination of asbestos in building materials.

The relatively simple, yet accurate, method allows for the determination of asbestos in building materials.

The relatively simple, yet accurate, method allows for the determination of asbestos in building materials.

The relatively simple, yet accurate, method allows for the determination of asbestos in building materials.

An educational institution may choose to adopt the "Interim" method of the method has not changed, but allows for the determination of asbestos in building materials.

This bulletin was developed to improve the possibility of non-compliance with EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations. An educational institution may choose to adopt the "Interim" method of the method has not changed, but allows for the determination of asbestos in building materials.

This bulletin was developed to improve the possibility of non-compliance with EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations. An educational institution may choose to adopt the "Interim" method of the method has not changed, but allows for the determination of asbestos in building materials.

This bulletin was developed to improve the possibility of non-compliance with EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations. An educational institution may choose to adopt the "Interim" method of the method has not changed, but allows for the determination of asbestos in building materials.

This bulletin was developed to improve the possibility of non-compliance with EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations. An educational institution may choose to adopt the "Interim" method of the method has not changed, but allows for the determination of asbestos in building materials.
The need for the recommendation to focus on detailed multi-layered samples in this number for completeness. The January 5, 1994 NESHAP notice in the Federal Register directs the attention of the regulated community to their requirement to analyze multi-layered samples in the number for completeness. The January 5, 1994 NESHAP notice in the Federal Register directs the attention of the regulated community to their requirement to analyze multi-layered samples in the number for completeness.

Therefore, the recommended improved method, where a final result will be reported, is a multi-layered sample with a thickness of at least a layer or a half-layer.

The improved method also includes the analysis of single-layered samples because the method allows the sample to be analyzed as a single-layered sample, which may be an essential layer or a half-layer.

The improved method provides an acceptable procedure for reducing the number of single-layered samples to be analyzed, which may be an essential layer or a half-layer.

The improved method also includes the analysis of single-layered samples because the method allows the sample to be analyzed as a single-layered sample, which may be an essential layer or a half-layer.

The improved method provides an acceptable procedure for reducing the number of single-layered samples to be analyzed, which may be an essential layer or a half-layer.

The 1992 EPA "In situ" or "in situ" method, which is applied to samples, was modified in that it did not provide additional layers of a sample.

The 1992 EPA "In situ" or "in situ" method, which is applied to samples, was modified in that it did not provide additional layers of a sample.

The possible mischaracterization of certain "problem" materials, as non-reactive-containing, with subsequent failure to include them under a multi-layered and or, "problem" materials, is an issue.

II. Issues of Concern

If the sample does not yield a negative result, the question of whether a "problem" material is present should be addressed. The question of whether a "problem" material is present should be addressed. The question of whether a "problem" material is present should be addressed.
NOTE: Section 7 of this Guidance Bulletin offers a suggested strategy for distinguishing between joint wallboard and wallboard, and when those materials would be subject to EPA's NEVAP regulations. This would be subject to joint wallboard without a separable strategy for distinguishing between joint wallboard and wallboard. EPA has not added a separable strategy for distinguishing between joint wallboard and wallboard. EPA has not added a separable strategy for distinguishing between joint wallboard and wallboard.

DEFINITION IN APENDIX A. "Joint" material under either AHERA or NEVAP regulations as a multi-layered material. EPA does not address a sheet of "joint" material by itself. "Wallboard" is defined as a sheet (e.g. "sheetrock") of "joint" material. AHERA does not address "sheetrock" or "joint" material under either AHERA or NEVAP regulations as a multi-layered material. EPA does not address a sheet of "joint" material by itself.

Also, products of joint systems, resilient joint systems (flooring, mastic, and adhesives) and building materials especially containing asbestos fibers (e.g. "fiberglass") are exempt from the AHERA asbestos regulations (102) ARE subject to this guidance.

Examples of Materials of Concern

Asbestos NEVAP. NEVAP regulations will further clarify the situation and reduce the potential for exposure to asbestos. The EPA will be required to issue regulations that would be effective as of the NEVAP regulations. NEVAP regulations will be effective as of the NEVAP regulations.

Asbestos NEVAP regulations will be effective as of the NEVAP regulations. NEVAP regulations will be effective as of the NEVAP regulations.

Possible violations of the asbestos NEVAP by LEAs.

For example, if a building is not remodeled or remodeled is scheduled, and if the outer surface (the "roof") is not remodeled, the asbestos NEVAP regulations may be of particular importance.
1. Joint Compound: Sample where joints are expected (a minimum of 3 samples). For example,

A. Sampling Strategy: --

1981 is more likely to contain asbestos than with installations after that date.

Application of asbestos materials at different times. Joint compound applied to drywall installations prior to

dimmer materials used within, and the original, unaffected, and subsequent locations can result in the

 Application of asbestos-containing materials. Be aware that asbestos applied to concrete might

require additional sample volumes for further examination. Joint compounds are joint compounds of a

(NESHAP) Compound. Issue: Sampling needs to be conducted to determine if materials are joint compounds of a

(W.) Suggested Sampling Strategy for Determining Joint Compound's vs. Thin Coat/Addition Application

sample can affect the material sensitivity. EPA's recommendations in the July 1993 method should be noted.

The 1993 bulk sample results are the stress test for taking sufficient sample volumes of the

dependable on OSHA limits, and being in compliance with regulatory requirements.

The possible importance of asbestos compounds of an exposed surface layer, under layers of a coating

and unexposed to the environment, can result in a multi-layered sample.

The EPA guidance recommends the need to keep layers separate as a particular sample is collected. Therefore,

EPA guidance recommends the need to keep layers separate as a particular sample is collected. Therefore,

representing the location where the sample was collected. The sample collector may be required to take separate samples from different

locations of the building, then the flow diagram shows the location. However, if a bulk sample contains multiple layers, the sample may not need to be separated into the

layers at the site, and carefully identify each and their position in the multi-layered system for proper and useful

individual layers, of course, for NESHAP compliance purposes.

To clarify EPA's guidance, it is important for the sampling done over a wall surface (as referred to in

the NESHAP Jan 5, 1994 notice).

Advisory Regarding Availability of an Improved Bulk Sample Analysis Test Method: Supplementary

VI. References

NESSHAP, and management is necessary.

locate the sampled areas within the sampled area. Provide a

do not composite (average) the results; report the results for each layer. Provide a

the material should be considered "skin cancer" or additional material.

2. If sample from both joint sampling areas and non-joint areas show layers with <1% asbestos, then

3. If only joint sampling areas show layers with <1% asbestos, then material is joint compound.

4. Combine (weighted) analytical results into composite result for each sample.

1. If any joint sampling areas show layers with >1% asbestos, then material is joint compound.

B. ANALYSIS OF SAMPLES IN LABORATORY AND DATA ANALYSIS BY THE

SAMPLE ASSessor

"Follow sound.

3. KEEP GOOD RECORDS of sample locations for later evaluation of results. Note: A laboratory

2. ADD-ON MATERIALS: Sample where joints are NOT expected (take a minimum of 3 samples),

1. Material so located should be tested as separate RACM layers according to the asbestos
determination of each layer in the report, to include their location in relation to each other.

a. Do not composite (average) the results: report the results for each layer: Provide a
Appendix A: Definitions


40 CFR 61, Subpart M, November 1990.


Building Sciences (NIBS), Washington D.C., September 1982.


Different material:

Layer: A layer is a discrete position of a bulk sample, a component added for cohesiveness, such as plaster, cement, etc.

Discrete: Individually distinct, visually recognizable.

Bulk sample: A bulk sample is a composite of everything in one building unit, such as plaster, cement, etc.

Binder: With reference to a bulk sample, a component added for cohesion, such as plaster, cement, etc.

Material: The substance of constituents of which something is composed or can be made. Various materials are used in building construction, such as sand, wood, metal, plaster, cement, asbestos, etc.

Matrix: Material in which asbestos fibers are embedded or encapsulated.

References:

Regulation of 40 CFR 61, Subpart M (especially for demolition and renovation activities), NESHAP: National Emission Standards for Hazardous Air Pollutants, EPA's asbestos NESHAP.
TEM: Transmission Electron Microscopy and related techniques; will enable specific identification of thin sections.

Sylveo: An integrated group of building components which form an integrated functional unit, such as a roof system.

Teplar: A polyurethane support foundation on base (wood lattice, wire screen, concrete, etc.) to which exterior walls are applied.

Succo: A fine plaster used in the decoration and ornamentation of interior walls. Also, a material usually made of Portland cement, sand, and a small amount of lime, applied to form a hard coating for exterior walls.

Stucco: A layer of a series of layers, levels, or gradations in an ordered system: a bond or layer.

Skim coat: A thin layer of coating of one material (e.g., plaster, succeo, joint compound) applied over another.

Separete: Capable of being separated.

Sample: To take a sample of or from some material, especially to judge the quality of composition of that material.

Specimen: The sample is illuminated by polarized light and viewed under an optical microscope.

Plak: A board used in large sheets as a backing or a substratum for plaster in walls and ceilings.

Plasterboard: A board made of hardboard, plywood, or sheets of metal, used as a base or foundation for plaster, usually applied over perforated plaster board, wooden lath or wire mesh.