



U.S. Environmental Protection Agency Applicability Determination Index

Control Number: A990001

Category: Asbestos
EPA Office: Region 8
Date: 01/12/1999
Title: Asbestos in Schools
Recipient: Reiber, Mitch
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Subparts: Part 61, M, Asbestos

Abstract:

Q. Is finished wall/ceiling plaster considered to be friable or nonfriable?

A. During demolition or renovation activities, an asbestos-containing plaster wall that was considered nonfriable under AHERA may be subject to NESHAP requirements if it will be disturbed, and if the activity causes the plaster to become friable.

Q. How many samples are required for finished wall/ceiling plaster to determine if plaster is asbestos-containing?

A. NESHAP requires that, prior to demolition or renovation activities, a thorough inspection be conducted to determine the presence of asbestos. If the AHERA inspector collected only one sample of a homogeneous area, and the analysis was negative, that one sample may not be sufficient under NESHAP to accurately determine whether asbestos is present in the area subject to demolition or renovation, even though it appears to be the same color and texture. EPA recommends that additional samples be collected, such as described in the 3-5-7 sampling rule, since most demolition/ renovation activities will cause the material to become regulated.

Another consideration would be that if EPA or another regulatory agency finds asbestos which was not identified prior to beginning a demolition/ renovation project subject to NESHAP, enforcement action may be warranted.

Q. If a homogeneous area of finished wall plaster is in perfect condition except for a few hairline cracks, would the presence of these cracks, alone, cause this material to be classified as friable?

A. NESHAP would consider the material along the crack to be friable. When contemplating demolition/renovation activities, one should consider this in association with how and to what extent the material will be disturbed, in making a decision on its status as a regulated ACM.

Letter:

Mr. Mitch Reiber
President
REMS
2500 West 31st Street, Suite G-2
Lawrence, KS 66047-3015

Dear Mr. Reiber:

This is in response to your December 1, 1998, letter to Mr. William Yellowtail, Regional Administrator, EPA Region VIII, Denver, Colorado, regarding application of the Asbestos-Containing Materials in Schools Final Rule to asbestos-containing surfacing material. This rule was promulgated under authority of the Asbestos Hazard Emergency Response Act (AHERA). Your letter was directed to me for reply.

While your questions appear to focus on sampling requirements of the AHERA regulation, there are other implications of regulatory impact of which you should be aware. The Environmental Protection Agency also administers the asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP), promulgated under the Clean Air Act, and that portion of the standard pertaining to demolition and renovation operations will be included in this discussion.

Generally speaking, AHERA encourages the identification and proper management of asbestos-containing building material (ACBM) in school buildings. The NESHAP demolition/renovation standard also requires identification of asbestos-containing material (ACM) prior to such activities, and implementation of certain work practices during demolition/renovation activities which disturb ACM in poor condition, friable ACM, or nonfriable ACM which may otherwise become regulated during such activities.

The difference between the two regulations may have an impact on sampling suspected materials to determine the presence of asbestos, and I will point out those differences when answering your questions.

QUESTION: When the material is in good condition, is finished wall/ceiling plaster considered to be friable or nonfriable? Answer: The condition of a material is not a factor for determining friability for purposes of AHERA. The purple book, "Guidance for Controlling Asbestos-Containing Materials in Buildings," states that surfacing materials should be rubbed by hand to see if they crumble or produce a light powder; if so, they must be considered friable. Further, the regulation defines "friable" as meaning any material that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. They may be in good condition, with no damage, and still be friable. The hand test is the only way of determining friability.

During demolition or renovation activities, however, an asbestos-containing plaster wall that was considered nonfriable under AHERA may be subject to NESHAP requirements if it will be disturbed, and if the activity causes the plaster to become friable.

QUESTION: How many samples, according to AHERA are required for finished wall/ceiling plaster to determine if plaster is asbestos-containing? Answer: The Asbestos-Containing Materials in Schools Final Rule defines "surfacing material" as material that is sprayed-on, troweled-on, or otherwise applied to surfaces. The sampling provisions of the regulation at 40 C.F.R. 763.86(a), however, establish the 3-5-7 rule for friable surfacing material only. Nonfriable surfacing material would fall under the sampling requirements for "nonfriable suspected ACBM," at 40 C.F.R. 763.86(d), which requires only that an inspector collect samples "in a manner sufficient to determine whether the material..." contains asbestos.

The Agency places responsibility for determining the proper number of samples to be collected on the

trained, accredited inspector. In some relatively few cases, one sample may be sufficient; but in other situations, such as buildings which contain more than one construction date (and, therefore, different construction materials), the inspector may determine that additional samples from each area are needed to determine whether asbestos is present. Also, while materials manufactured off-site are generally considered to be more homogeneous and therefore more suited to fewer samples, materials manufactured or mixed on-site, such as plaster, may require additional samples. It was a common practice to mix plaster at the site of application, and asbestos was often added to the mixture at that time. This type of material is often less homogeneous, and additional samples may need to be collected for a representative analysis. It is unlikely a record of such mixture would be found on building drawings or other construction documents.

The AHERA regulation bases its sampling requirements on homogeneous areas--surfacing, thermal, or miscellaneous material that is uniform in color and texture--not on construction dates or other factors. However, the inspector should consider all factors pertaining to a particular situation in determining the appropriate number of samples "sufficient to determine" the presence of asbestos. The Agency did not, and, in fact, could not, establish requirements to meet all possible situations. Rather, the responsibility is on the trained and accredited individual to apply his/her knowledge and experience in making this decision.

The underlying purpose of the AHERA regulation is, of course, to properly maintain asbestos-containing materials so as to protect building occupants. Since the only way of accomplishing this is to properly identify the locations of all asbestos-containing building materials, the inspector should consider all relevant factors to determine the proper number of samples.

NESHAP requires that, prior to demolition or renovation activities, a thorough inspection be conducted to determine the presence of asbestos. If the AHERA inspector collected only one sample of a plaster wall, for example, that was alike in color and texture (a homogeneous area), and the analysis was negative, that one sample may not be sufficient under NESHAP to accurately determine whether asbestos is present in the area subject to demolition or renovation, even though it appears to be the same color and texture. EPA recommends that additional samples be collected, such as described in the 3-5-7 sampling rule, since most demolition/ renovation activities will cause the material to become regulated.

Another consideration would be that if EPA or another regulatory agency finds asbestos which was not identified prior to beginning a demolition/ renovation project subject to NESHAP, enforcement action may be warranted.

QUESTION: Is finished wall/ceiling plaster to be treated as surfacing material? Answer: Any material that meets the definition of "surfacing material" should be treated as such. For sampling purposes, however, friable and nonfriable surfacing materials are treated differently, as described above.

QUESTION: If a homogeneous area of finished wall plaster is in perfect condition except for a few hairline cracks, would the presence of these cracks, alone, cause this material to be classified as friable? Answer: Again, the accredited inspector must determine whether or not the surfacing material is friable, by using the hand pressure test. If the material is friable, it must be assessed according to criteria provided at 40 C.F.R. 763.88, and crack damage would be one consideration. If the material is not friable, the regulation does not require assessment.

NESHAP, on the other hand, would consider the material along the crack to be friable. If an inspector had physical access to the crack's surface and rubbed it, he/she most likely would create dust. When contemplating demolition/renovation activities, one should consider this in association with how and to what extent the material will be disturbed, in making a decision on its status as a regulated ACM.

I trust we have answered your concerns, even though some questions have no definitive answer. This response has been coordinated with representatives of the Office of Enforcement and Compliance

Assistance and the Office of Prevention, Pesticides, and Toxic Substances in Washington, D.C.

Sincerely,

Tom Hogan
Chief
Radiation, Asbestos, Lead, and
Indoor Programs Branch
Air, RCRA, and Toxics Division

cc: Mr. William Yellowtail
Regional Administrator
EPA Region VIII