



## U.S. Environmental Protection Agency Applicability Determination Index

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**Control Number: C38**

**Category:** Asbestos  
**EPA Office:** SSCD  
**Date:** 01/29/1988  
**Title:** Proof of "Adequately Wetted" Asbestos  
**Recipient:** Kertcher, Larry F.  
**Author:** Seitz, John S.

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**Subparts:** Part 61, M, Asbestos

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**References:** 61.141  
61.145(c)

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**Abstract:**

Proof of emissions to the outside air is not necessary to prove that the asbestos was inadequately wetted. Proof that there was no water supply available at the site is sufficient to prove inadequate wetting without observing any emissions at all. It remains the contractor's responsibility to use a wetting agent that will adequately wet all asbestos-containing material subject to the NESHAP, including hard-to-wet amosite.

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**Letter:**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C.

JAN 29, 1988

MEMORANDUM

SUBJECT: Asbestos Demolition/Renovation NESHAP  
Interpretation and History

FROM: John S. Seitz, Director  
Stationary Source Compliance Division  
Office of Air Quality Planning and Standards

TO: Larry F. Kertcher, Chief  
Air Compliance Branch (5AC-26)

This is in response to your request dated October 23, 1987, regarding Indiana's concerns with the asbestos demolition and renovation regulations.

Indiana's interpretation of 40 CFR Section 61.147(c) is substantially correct. "Adequately wetted" is defined (40 CFR Sect 61.141) to mean sufficiently wetted to prevent dust emissions. That means dust emissions in the work area or the outside air. Observation of dust emissions during stripping is one form of proof along with others that the asbestos was inadequately wetted. The introductory language to Section 61.147 ("... comply with the following procedure to prevent emissions ... to the outside air:") is merely an explanation of the goal of this section, not a substantive element of proof. Proof of emissions to the outside air is not necessary to prove that the asbestos was inadequately wetted. Proof that there was no water supply available at the site would be sufficient to prove inadequate wetting without observing any emissions at all.

As a practical matter, a contractor wetting the asbestos with water while stripping may occasionally produce some dust in the removal area, especially when hard-to-wet amosite asbestos is involved. The NESHAP does not distinguish between amosite asbestos and other types; therefore, no allowances are made for visible emissions during the removal of amosite asbestos. Pure amosite cannot be wetted with water, but amosite containing material with 60% cellulose binder should be able to absorb water very well. EPA has recommended that amended water contain 1 ounce of polyoxyethylene ether/ester (50% ether, 50% ester) per 5 gallons of water for many applications. However, this mixture may not adequately wet hard-to-wet amosite asbestos. A 1 to 5 mixture of ethylene glycol and water would probably produce better results. Another option is the use of Proprietary Removal Encapsulants. Most of these encapsulants contain enough surfactants to adequately wet amosite. EPA and delegated agencies should suggest these wetting agents to contractors removing hard-to-wet amosite, but it remains the contractors' responsibility to use a wetting agent which will adequately wet all asbestos-containing materials (ACM) subject to the NESHAP. This means that the contractor must ensure that the type and concentration of wetting agent(s) used, and the method of applying the amended water will adequately wet the ACM. Containment barriers and negative air do not affect the adequately wet requirement.

In response to Indiana's second set of questions, "no visible emissions" and "adequately wetted" were two qualities shown to be interrelated at several removal sites investigated during standards development. "No visible emissions" was shown to be an indicator of "adequately wetted." Air monitoring was considered as a means of establishing an emission standard. However, the methodology available at the time the NESHAP was developed was insufficient because no air monitoring method was capable of distinguishing asbestos fibers. Additionally, because air monitoring results vary depending on where the monitor is placed, air monitoring would be an unreliable and controversial measure of compliance. For these reasons, air monitoring was not used to develop the emission standard. Epidemiological studies specific to the development of the NESHAP were not performed; however, the NESHAP was developed based on the Office of Research and Development's assessment that no level of exposure is known to be safe.

This response was made in conjunction with ESED. Any questions concerning this response may be addressed to Jim Engel at 382-2877.

cc: Gil Wood  
Sims Roy