



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

**Control Number: A040002**

**Category:** Asbestos  
**EPA Office:** CAMPD  
**Date:** 02/11/2004  
**Title:** Application of Solvent to Floor Mastic  
**Recipient:** Peter Connell  
**Author:** Michael Alushin  
**Comments:** See related determination filed as ADI Control No. A040001. See also ADI Control No. C93.

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

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**References:** 61.141  
61.145

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**Abstract:**

Q: Notwithstanding a prior determination, is the use of solvent and a mechanical buffer to remove asbestos-containing floor mastic subject to the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), subpart M, under the specific circumstances defined in the request for determination?

A: Yes, because the application of solvent followed by the buffer is considered abrading the floor mastic. As defined in 40 CFR section 61.141, regulated asbestos-containing material can be a Category I non-friable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading. Floor mastic, a Category I material, is potentially subject if it is sanded, ground, cut or abraded. While the use of solvent softens the floor mastic, the buffer and pad abrade the floor mastic, making this subject to the Asbestos NESHAP.

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**Letter:**

Mr. Peter F. Connell  
MACTEC Engineering and Consulting, Incorporated  
10265 Rockingham Drive, Suite 150  
Sacramento, CA 95827

Dear Mr. Connell:

I am responding to your December 23, 2003 letter and points raised in our telephone conversation of January 26, 2004, in which you expressed your opinion that my letter of December 12, 2003 was inaccurate in its assessment of the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) regarding the use of a mechanical buffer with an abrasive pad on asbestos-containing floor mastic saturated with solvent. I appreciate you taking the time to discuss your position and answer our questions. After a careful review, the Agency continues to maintain the use of the mechanical buffer with an abrasive pad on asbestos-containing solvent-saturated floor mastic is subject to the Asbestos NESHAP regulations.

You disagreed with the following statement in my previous letter, "The energy from the mechanical buffer with abrasive pads will cause the floor mastic to become friable through abrading." You requested EPA to substantiate by field studies that a mechanical buffer with an abrasive pad applied to solvent-saturated asbestos-containing floor mastic would result in the asbestos becoming friable or to issue an applicability determination that says NESHAP does not regulate the process.

Rather than focusing on whether the mastic becomes friable, the explanation in my previous letter should have been clearer as to why the regulations apply. The regulation at 40 Code of Federal Regulations, Section 61.141 states that Regulated Asbestos-Containing Material (RACM):

means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I non-friable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading, or, (d) Category II nonfriable ACM that has a high-probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart. [Emphasis added]

Paragraph (c) in the RACM definition applies directly to the work practice activity you described in your letter, abrading floor mastic, a Category I nonfriable asbestos-containing material. If your renovation or demolition project involves 160 square feet or more, you are subject to all the applicable Asbestos NESHAP requirements, including inspection, notification, emission controls, removal and disposal.

Please note that the Agency received numerous comments on the applicability of "friable" and "nonfriable" to "asbestos-containing material" during rule development. The Agency responded in the September 1990 Background Information Document for the Asbestos NESHAP, on Page 7-8:

. . . The EPA considers the deliberate sanding, grinding, or abrading of all nonfriable materials, including resilient floor covering, asphalt roofing material, packings, and gaskets to be equivalent to disturbing friable ACM and, therefore requires that these activities be controlled according to the NESHAP. . .

At the time the Asbestos NESHAP was promulgated, EPA decided to treat deliberate abrading of all nonfriable asbestos-containing material as equivalent to disturbing friable asbestos-containing material, and included the activity in the definition of RACM.

In our telephone conversation on January 26, 2004, you stated that the application of solvent to the floor mastic breaks down the mastic structure over time. Then, a mechanical buffer and pad are used on the solvent-saturated mastic creating a slurry. The slurry is picked up and placed into plastic bags and then into drums, readied for transport. There may be a second or third application of solvent and mechanical buffer to remove the remaining mastic. In support of your argument, you identified applicability determination C93 (April 9, 1991) in which the Agency stated that the application of solvent to floor mastic would not cause the floor mastic to be subject to the Asbestos NESHAP. While C93 does make this comment, it is quite specific in that the application of solvent "alone" would not cause the mastic to be crumbled, pulverized or reduced to powder.

Based on our discussion, the solvent alone is not sufficient to break down the mastic's structure into an asbestos-containing material that can be removed without an additional force, such as friction from the mechanical buffer. The use of the mechanical buffer introduces the means to abrade the floor mastic into the work practice. If the solvent can break down the mastic structure, other methods of removal could be used that do not require the application of friction to the material. For example, after pouring the solvent onto the mastic and waiting for an appropriate time to, a squeegee could be used to push the slurry material into piles and then picked up and placed into plastic bags. The use of wet/dry vacuums to pick up the solvent-saturated mastic after the solvent has broken down the mastic structure is another method that does not apply friction to the process. In either example, a second application of solvent could be applied to remove any remaining mastic without the use of a mechanical buffer.

In summary, the use of a mechanical buffer with an abrasive pad on asbestos-containing, solvent-saturated floor mastic, 160 square feet or greater, is subject to the Asbestos NESHAP regulations, including inspection, notification, emission controls, removal and disposal.

I appreciate the opportunity to address your concern about the applicability of the Asbestos NESHAP to asbestos-containing floor mastic removed by mechanical and chemical means. This letter has been reviewed by the Office of Regulatory Enforcement, Office of Air Quality Planning and Standards and the Office of General Counsel.

Very truly yours,

Michael S. Alushin, Director  
Compliance Assessment and Media Programs Division Office of Compliance

Enclosure

cc: Duane James, Branch Chief, Air Enforcement Division, Region IX Robert Trotter, Region IX Charlie Garlow, Office of Regulatory Enforcement Susan Fairchild, Office of Air Quality Planning Standards Michael Horowitz, Office of General Counsel