



# R.T. Vanderbilt Company, Inc.

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June 25, 2002

Mr. Marvin W. Nichols, Jr.  
Director; Office of Standards, Regulations, and Variances  
MINE SAFETY AND HEALTH ADMINISTRATION  
U. S. Department of Labor  
1100 Wilson Boulevard, Arlington, Va. 22209-3939

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MSHA  
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RE : ANPR Measuring and Controlling Asbestos Exposure

Dear Mr. Nichols;

This correspondence and appended documentation is an extension to my prior public record submission concerning the captioned ANPR. I originally provided comment and documents at the Administrations public hearing in Canton, New York on May 16, 2002.

The purpose of this additional submission is to better ensure the health science base behind the Occupational Health and Safety Administrations (OSHA) decision to remove nonasbestiform tremolite, anthophyllite and actinolite is understood.. These non-asbestos minerals were formally removed from under the scope of OSHA's general industry asbestos standard (29 CFR 1910.1001) in 1992.

Despite prior submissions and comments, I am concerned that the health studies that support this OSHA decision may not be fully recognized by the Administration. In light of increased (often sensationalized) asbestos news stories, escalating asbestos litigation and enhanced political interest in asbestos issues (e.g. Senator Murray's Bill before the 107<sup>th</sup> Congress), I want to be sure this important health record is not overlooked.

Currently, no federal agency (including MSHA) regulates amphibole cleavage fragments as asbestos. It is expected that any suggestion to reverse this would require persuasive supporting health evidence. Such evidence was absent ten years ago and I believe it is absent today.

The mistaken belief that nonasbestiform amphiboles pose the same or similar risk as asbestos arose in the 1980's. This belief was linked to one (or more) of the following:

1. Studies of Vanderbilt tremolitic talc miners and millers in New York State showed excess lung cancer mortality. This excess was attributed to the 40 to 60% nonasbestiform tremolite found in this talc by NIOSH in a 1980 Technical Report entitled "Occupational Exposure to Talc Containing Asbestos".

2. It was reasoned that since nonasbestiform amphiboles share the same chemical composition as their asbestiform analogs, are durable, can be elongated and may be of respirable size – they “should” pose the same health risk.
3. Several animal studies reported the presence of short, flat cleavage fragments in samples that produced tumors in test animals. These samples also contained, very long, thin fibers (often identified as asbestos). The observed tumors were attributed to both mineral exposures in the absence of evidence to the contrary.

None of these beliefs were ultimately supported. In my testimony in Canton, New York I described why most researchers believe the lung cancer observed at the Vanderbilt mine is not linked to the dust exposure. Further, other (larger) mining populations also exposed to amphibole cleavage fragments (e.g. gold mining and taconite mining) were studied and showed no excess cancer linked to nonasbestiform amphibole exposure.

In regard to “mechanism” theories and animal studies, it became clear that when animal and cell studies involving only exposure to nonasbestiform amphiboles were undertaken (often contrasting nonasbestiform amphiboles with samples of asbestos under the same test conditions), asbestos consistently produced tumors while amphibole cleavage fragments consistently did not.

OSHA ultimately concluded that: “available toxicological and epidemiologic evidence related specifically to nonasbestiform ATA is negative or inconclusive on the issue.” I suspect the qualifying term “inconclusive” was used by OSHA as a direct reference to Vanderbilt talc workers. If I am correct in this assumption, the significance of my Canton testimony regarding the health status of these miners and millers might take on greater meaning for MSHA.

Several ANPR hearing participants and groups have submitted a copy of a joint trade association document entitled “The Asbestiform and Nonasbestiform Mineral Growth Habit and Their Relationship to Cancer Studies” (issued in 1990 by the American Mining Congress and the National Stone Association). Using this document as a basic guide to health issues addressed in the OSHA hearing, I am enclosing complete copies of key nonasbestiform *health* studies and critiques referenced in that pictorial presentation. Since this document was issued in 1990, some health study updates have been added.

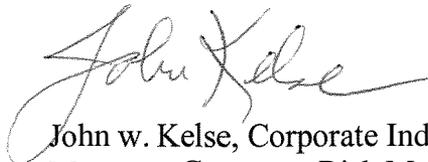
The one non-health linked submission involves the inclusion of a 1989 Bureau of Mines document that presents a cost analysis on regulating nonasbestiform amphiboles as asbestos. OSHA's final rule on Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite (29 CFR Parts 1910 and 1926) Monday June 8, 1992 is included as well.

Should MSHA receive a petition to reverse the OSHA decision and treat nonasbestiform amphiboles as asbestos, it is hoped the material appended to this submission will prove helpful. It is assumed the health basis for such a recommendation would be made available for review and comment.

I very much appreciate the opportunity to participate in this rulemaking and hope these additional comments and materials are helpful to MSHA.

Very truly yours,

R. T. VANDERBILT COMPANY, INC.



John w. Kelse, Corporate Industrial Hygienist  
Manager, Corporate Risk Management Dept.