

PART V

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MINERALOGY AND RELATED ASPECTS

One of the more important facets of the document relates to the NIOSH position of using a particle of 3:1 aspect ratio as a base definition for an asbestos particle. J & J has raised its concern in its previous response to the earlier draft of the criteria document (Ref. below*) and sees no need to reiterate the same criticism.

However, some new information has a very significant bearing on the limitations of a 3:1 aspect ratio as regards asbestos fibers.

J & J has an active member in ASTM (27,000 members), and part of Committee E-34 aimed at OSHA developments and standards relating to asbestos and the methods of sampling and analysis of atmospheres; the latter being concerned with talc and mineral dust matters. ASTM is finalizing an Asbestos Standard and Talc Dust Analyses.

ASTM has given permission for J & J to disclose to NIOSH that a current study made for a division of the Canadian Government shows that an aspect ratio of 5:1 is the most consistent of criteria tested and the data shows this preference over 3:1 aspect particles. Attached is Appendix I with the official

*J&J response dated 12/13/78 to first draft of TALC document of October 1978.

letter to the Chairman of ASTM Committee E-34 transmitting the findings to a member of the Abatement and Compliance Branch of the Canadian Government. NIOSH will note that the permission to present the report to NIOSH does not include permission for publication. The 5:1 aspect information should be significant to NIOSH regarding their criteria document calling for 3:1 aspect definitions. It should be significant because the ASTM standard for exposure to asbestos is in its final stages of preparation for balloting and could coincide or precede the appearance of the final printed NIOSH Talc document calling for 3:1 aspect ratio.

It is suggested that NIOSH and SRI look carefully into the above situation which will carry the weight of asbestos knowledge compiled by Canadian scientists who are the world's top experts in all phases of asbestos technology. Otherwise NIOSH could find their document prescribing 3:1 particles in direct conflict with an ASTM consensus document which will prescribe 5:1 particles as developed in part for a branch of the Canadian Government.

PART V (CON'T)

OTHER MINERALOGICAL ASPECTS

There are a few additional mineral items throughout the document which require attention and slight revision. More than likely some of the following might be typographical error or omissions which, when properly adjusted, will provide a sounder document.

- Line 42 page 2 - asbestos minerals should be revised to read fibrous asbestos minerals or asbestiform minerals.
- Line 431 - There is a sentence missing on line 431 which is needed to connect the thoughts of the first sentence to those in the printed second sentence.
- Line 625 - Strike out the words usually mixed with and replace them with may be associated with.
- Line 897 - Reference #8 does not appear to be the right reference for the OSHA standard mentioned.
- Line 964 - The definition of asbestos fiber given is different than the definition printed in the actual reference.
- Line 1248 - Change Talc to a Talcum Powder or to a mixture of talc and non-talc materials.

NOTE: Appendix II attached, documents this required change. See Analysis of Dust on pg. 394 of the Millman reference.

Lines 1387
through 1390 - The adjustments needed in these lines require
direct consultation with the referenced author
namely, Dr. Campbell of the Avondale Division
of the U. S. Bureau of Mines.

Line 4872 - Reference 161 is the wrong reference and it
probably should be 116.

Line 4880 - Change little to no.

Line 6758 - Change amphibole to asbestos.