

- 2) give some indication of fiber counts from personal samples,
- 3) determine some index which may be used in the absence of better information to estimate the proportion of asbestos in a mixed dust exposure.

From this study the following relationships were determined:

<u>Light Field Technique</u>	<u>Membrane Filter Method</u>	<u>Fiber Length</u>
1 mppcf	10 fibers/ml	all fibers
1 mppcf	6 fibers/ml	> 5 μ m
1 mppcf	3 fibers/ml	> 10 μ m

This study shows the effect on the TLV intended changes of 1968 and 1969 of 2 mppcf or 12 fibers/ml for fibers greater than 5 μ m in length.

Based on the established TLV of 5 mppcf still being used at the time of the study the following equivalent relationships can be stated:

Total fibers - 50 fibers/ml

Fibers longer than 5 μ m - 30 fibers/ml

Fibers longer than 10 μ m - 15 fibers/ml

If the suggested level of exposure was to be limited to 5 fibers/ml for fibers greater than 5 μ m in length, it can be seen that the impinger technique would require a TLV of less than 1 mppcf. This would be near the lower practical limit of sensitivity of the impinger technique. Accurate measurements would be very difficult by the impinger method.

Another fact was that this relationship was obtained for asbestos textile mills and would not necessarily be valid for other industries. In fact, the results could not be related from one plant to another for the same operation.

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