

10/16/90

10:52

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April 9, 1986

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Warren Cook
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Dear Tom:

In response to your specific questions, copies of my reports on surveys of brake lining and other plants involving asbestos were kept on file at the Connecticut State Department of Health during my association there, 1928-1937 at the Zurich Insurance Companies in Chicago while there in 1937-1953. I would fully expect that these would have long since been discarded. I had never made it a practice to retain copies of reports in my personal files prior to my June 30, 1971 retirement from The University of Michigan. Since that time my occasional consultation has not involved surveys of asbestos exposures.

W/C

I was interested in reviewing the copy of the Hemlon report of June 1947 for the Industrial Hygiene Foundations of America, prepared during John McMahon's managing directorship, a report that I had not been aware of even though I was rather close to the Foundation in those years. I did find in my file of reprints of papers on asbestos your paper (with El-Attar) on Cancerogenic Risk and Duration of Employment, presumably of your study of the Raybestos Manhattan plant in Pennsylvania.

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The book to which I referred over the phone would have been my monograph on occupational exposure limits--worldwide. I really doubt that I will ever put together my experiences in industrial hygiene in a book.

In our telephone chat, you wished me to write you concerning my understanding of the inclusion of all dust particles, asbestos and others, in the results of dust counts in the 1930's and on up to the '60's when fiber counts of over 5 microns in length replaced the dust count of all particles less than 10 microns in diameter.

My training in dust counting was according to the technique published by Leonard Greenburg and J.J. Bloomfield in Public Health Reports, Vol. 47, No. 12, March 12, 1932 and also in the subsequent publication by J.J. Bloomfield and J.M. Dallavalle in Public Health Bulletin, No. 217, April 1935. This training was conducted personally by Jack Bloomfield at the Yale University Station of the ASPHS in New Haven in 1928 while I was first associated with the Connecticut Bureau of Occupational Diseases. This technique called for counts of all dust particles smaller than 10 microns in diameter on the basis that larger particles did not reach the alveoli.

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In my dust counting of asbestos exposures in the 1930's, I continued to count and report the number of all particles smaller than 10 microns.

The biweekly Public Health Reports regularly came across my desk at the Connecticut State Department of Health and I must have seen the report of the asbestos study of 1929 - January 1931 by the Metropolitan Life Insurance Company group in P.H. Reports of January 4, 1935. Even though Bill Fehnel started to count dust particles of all sizes after their initial survey in view of the report that asbestos particles of much larger sizes had been found in lung tissue, it is probable that I continued to follow the published USPHS procedure and Bloomfield's direction with inclusion of only particles smaller than 10 microns in my counts. As stated in the Metropolitan Life report, the difference between counts of only < 10 micron particles and counts of all particles was not significant as they reported that 97% of the particles were smaller than 10 microns.

As was the practice at that time, the dust counts reported included both asbestos particles and those of other composition following the procedures of the two above cited publications. This was my practice also. That it was the practice of the Metropolitan Life group is evidenced by their statement that with asbestos being only 25% of the material in the textile operations, the actual exposure to asbestos is considerably less than indicated by their dust counts.

In the P.H. Bull. No. 241, 1938 report of the Dreesen-Dallevalle asbestos study, the reference to dust counting technique used is that of P.H. Bulletin 217 of 1935 by Bloomfield and Dallevalle. This procedure, as did the 1932 publication in Public Health Reports, states that "in general, only particles less than 10 microns in diameter are counted" with no suggestion that the counts should be limited to any given mineral of special interest.

Sincerely,

Warren A. Cook / cr

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WAC/cr