Miller, Diane M. (CDC/NIOSH/EID)

From: John Addison [jaddison@jaddison.karoo.co.uk]

Sent: Sunday, May 27, 2007 6:03 AM

To: NIOSH Docket Office (CDC)

Subject: Asbestos and Other Mineral Fibers: A Roadmap for Scientific Research, NIOSH Docket Number NIOSH-099

Attachments: JA-roadmap-letter.doc

Please find attached my comments on the 'Asbestos Roadmap.

John Addison

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27th May, 2007

Docket number NIOSH-099

Asbestos and Other Mineral Fibers: A Roadmap for Scientific Research

Dear Ms Miller,

As a co-author of one of the documents discussed in the above document, (Davis JMG, Addison J, McIntosh C, Miller BG, Niven K. (1991). Variations in the carcinogenicity of tremolite dust samples of differing morphology. Proceedings of the Collegium Ramazzini Symposium, New York, 1990. Annals of the New York Academy of Sciences; 643; 473-490.), I would like to take this opportunity to make a few comments on the relevant paragraph on page 10.

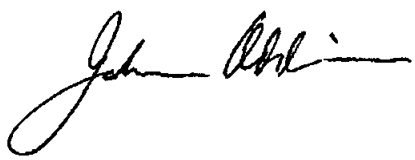
The six tremolite samples used were described carefully; three were identified as asbestiform but these were also noted to contain some cleavage fragments of prismatic tremolite. The three other tremolite samples were described as being predominantly non-asbestos but two of these, that from Ala di Stura in Italy, and that from CarrBrae, Dornie in Scotland, were described as having minor components of long thin asbestiform tremolite fibers (P 479 and P 488). All of the samples produced some mesotheliomas when injected into the peritoneal cavity of rats. The correlation between the relative carcinogenic potencies of the different samples and the numbers of fibers in the doses (10 mg) was not absolutely clear but the three asbestiform tremolites all produced very high numbers of tumors (100% or so) with short median survival times, averaging 365 days.

The tremolite from Shinness in Scotland produced tumors at a rate that was considered by us to be not significantly different to background rates for this type of experiment.

Both the Italian tremolite (67% mortality) and the Dornie tremolite (12 % mortality) produced tumors in numbers that were higher than would be expected for background rates. However, when the mortality patterns for these two tremolites are examined it is clear that there were important differences between these two and the three asbestos samples. The median survival time for the Italian tremolite was 755 days, while that for the Dornie tremolite was incalculable because most of the rats survived to a natural death. This is the type of mortality pattern that one would expect to see if the animals had been given a low dose of highly carcinogenic asbestos tremolite. It is also the reason that the relative hazard indices were so different to those of the asbestos tremolites and why we wrote "The intraperitoneal injection test is, however, extremely sensitive, and it is usually considered that, with a 10 mg dose, any dust that produces tumors in fewer than 10% of the experimental group is unlikely to show evidence of carcinogenicity following administration by the more natural route of inhalation. Human exposure to a material such as that obtained from Shinness in Scotland, whether as a pure mineral dust or as a contaminant of other products, will almost certainly produce no hazard, and the material from Dornie is probably to be consdiered harmless to human beings as well.". I continue to hold these views.

It is also my view that the authors of your document have taken a carefully executed experiment with considered discussion and conclusions, and then misrepresented those discussions and conclusions in order to dismiss them.

Respectfully yours,



John Addison