

Avaltroni, Robert

From: Maddaloni.Mark@epamail.epa.gov
Sent: Friday, October 11, 2002 1:28 PM
To: avaltronir@dep.nyc.gov
Subject: letter to DOE



stuyasbestos.wpd

(See attached file: stuyasbestos.wpd)

Dr. Mark A. Maddaloni
Senior Toxicologist
U.S. EPA, Region II
290 Broadway
New York, NY 10007

Mr. Matthew Onek
Special Advisor to the Chancellor
New York City Department of Education
52 Chambers Street
New York, NY 10007

Dear Mr. Onek:

EPA has reviewed the sampling results conducted by Taylor Environmental for the NYC Dept. of Education re: asbestos air sampling at select locations in Stuyvesant HS during August, 2002. The air sampling results at all locations (auditorium, library and principal's office) meet the clearance criteria (70 s/mm^2) set forth in the Asbestos Hazard Emergency Response Act (AHERA) for re-entry into schools.

The EPA method (EPA-600/J-93/167) to test carpet for asbestos by ultrasonification is intended to determine the total asbestos content imbedded in a carpet and to evaluate the efficiency of carpet cleaning methods. There exists no widely recognized correlation between asbestos concentration (fibers per unit area) in carpet as measured by ultrasonification and associated air concentrations. Accordingly, it is not feasible to assess the risk posed from asbestos as measured by this method.

Positive ultrasonification results indicate a potential, albeit of unknown magnitude, for asbestos exposure. Actual risk from asbestos is best determined by air sampling.

Another method that can be employed for measuring asbestos on porous surfaces is the "microvac" technique developed by the American Society for Testing and Materials (ASTM Method D5755-95). Investigators (* Millette and Hays, 1994) have evaluated the relationship between asbestos load (f/cm^2) on surfaces and corresponding concentrations (f/cc) in the indoor air during various types of activities. However, these relationships (referred to as "K" factors by the authors) have been developed primarily from studies on hard surfaces. In addition to activity, a K factor (i.e., relationship between asbestos surface and air level) will be influenced by room volume and air exchange rates as well. Due to a lack of adequate empirical data, an estimation of airborne asbestos concentration based on extrapolation of asbestos load (f/cm^2) data from a "microvaced" porous surface would be highly uncertain.

As mentioned above, sampling methods currently available cannot relate asbestos concentration in carpets to ambient airborne levels with any degree of confidence. While air sampling remains the best indicator of actual asbestos risk, properly conducted carpet removal would eliminate any potential future risk associated with re-entrainment of asbestos fibers in carpets. In the presence of air sampling data that meets the aforementioned AHERA standard, carpet removal could be scheduled throughout the school year and summer so as not interfere with scholastic activities.

Sincerely,

cc: Kathleen Grimm, Deputy Chancellor, New York City Department of Education

* Millette and Hays, 1994. Settled Asbestos Dust Sampling and Analysis. Lewis Publishers, Boca Raton, LA.