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February 18, 2002

Mr. Bernard P. Orlan
 Director, Environmental Health and Safety
 New York City Board of Education
 28-11 Queens Plaza North
 Long Island City, NY 11101

**Re: Air Sampling for Silica
 Stuyvesant High School
 ATC Project No. 15-19125-0246**

Dear Mr. Orlan:

ATC Associates, Inc. (ATC) is pleased to provide this letter report of air sampling for silica-containing dust conducted on January 30, 2002, at the referenced school. The New York City Board of Education (BOE) requested this sampling at the recommendation of H. A. Bader, a consultant to the parents' association.

ATC collected twelve (12) samples for respirable dust using pre-weighed 37mm PVC filters connected to size-selective cyclones to remove the larger (non-respirable) particles prior to deposition on the filters. One (1) outdoor sample and eleven (11) indoor samples were collected per day. The samples, plus one blank, were sent to PSC Analytical Services, Inc., an American Industrial Hygiene Association accredited laboratory in Reading, PA. Analysis was performed by x-ray diffraction according to OSHA Method 142. A copy of the analytical report is attached.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for silica-containing dust is based on the percent of quartz (SiO_2) found in the dust, the higher the percentage of quartz, the lower the PEL. The formula for calculating the PEL is found in 29 CFR 1910.1000, Table Z-3. The formula is:

$$\frac{10\text{mg/m}^3}{\% \text{SiO}_2 + 2}$$

Silica was found above the limits of detection in one sample. Sample #S11, collected in Room 940, contained 0.0147 milligrams of silica per cubic meter of air (mg/m^3). The amount of quartz in this sample was $\leq 24\%$, therefore the PEL for this dust would be:

$$\frac{10\text{mg/m}^3}{24 + 2} = 0.385 \text{ mg/m}^3$$

The silica concentration in this sample was 3.8% of the calculated PEL.

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CITY_21MC100_003429696

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

Mr. Bernard P. Orlan
Air Sampling for Silica
Stuyvesant High School

February 18, 2002

Page 2

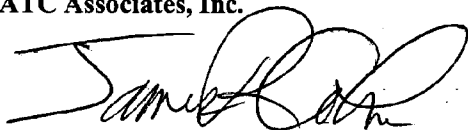
ATC Project No. 15-19125-0246

Silica was *not detected* in any of the other samples collected on this date.

The OSHA PEL is the only regulatory standard for silica exposure, however it is intended for occupational exposure in settings such as foundries, sandblasting, rock drilling, etc. The EPA does not have an ambient-air quality standard for silica.

ATC appreciates the opportunity to provide this indoor air quality consultative service to the BOE. Please call me at (212) 353-8280 extension 212 if you have any questions.

Sincerely,
ATC Associates, Inc.

A handwritten signature in black ink, appearing to read "James R. Cohn", with a stylized, flowing script.

James R. Cohn, CIH, CSP
Regional Manager
Industrial Hygiene Division

Attachment

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CITY_21MC100_003429697

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