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May 2, 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 Metals
 P.S. 234M
 ATC Project No. 15-19125-0279**

Dear Mr. Orlan:

ATC Associates, Inc. (ATC) is pleased to provide this letter report of air sampling for metals in airborne dust on April 2, 2002, at the referenced school. The New York City Board of Education (BOE) requested this sampling at the recommendation of Environ Corp., a consultant retained by the parents association.

Scope of Work

ATC collected four (4) samples for metals at specified locations. Samples were collected for a minimum of ten (10) hours using 37 mm mixed cellulose ester filter connected to battery-powered sampling pumps at a flow rate of 2 liters per minute. Pumps were calibrated before and after each sampling period. Two (2) samples were collected inside the building and two (2) were collected outdoors. Two blanks were submitted to confirm the levels of any trace contaminants in the filters. The samples were sent to PSC Analytical Services, Inc., an American Industrial Hygiene Association-accredited laboratory in Reading, PA. Analysis was performed by NIOSH Method 7300M. Each sample was analyzed for a panel of twelve (12) metals. The metals were aluminum (Al), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni) and zinc (Zn). Copies of the analytical reports are attached.

The sampling locations were the Main Entrance Lobby, 1st floor Hallway, the west Playground and the Roof.

Tenzin Namgyal and Wagdi Abdelshahid, Industrial Hygienists from ATC's New York City office, conducted the sampling consistent with accepted industrial hygiene practices. The results represent the conditions on the days the samples were collected.

The established regulatory values for metals are intended for industrial workplace exposures and are not generally applicable to office/school settings. *There are no standards for these metals in indoor air in non-industrial situations.*

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Results

The metals that were found above the limits of detection were aluminum, chromium and lead. The other eight metals were not detected. Chromium and lead were also detected in the blanks.

Al was the only metal detected that was not in the blanks. It was found in both indoor samples at concentrations of approximately 0.100 ug/m^3 . Al was not detected in the outdoor samples.

The blank-corrected Cr concentrations indoors were 0.119 ug/m^3 and 0.077 ug/m^3 . Outdoors the blank-corrected concentrations were 0.073 ug/m^3 and 0.0138 ug/m^3 .

The Environmental Protection Agency (EPA) has set a screening level for hexavalent chromium (the more toxic form) in air of 0.6 micrograms per cubic meter of air (ug/m^3), this assumes a continuous exposure for one year. These samples were analyzed for total chromium (trivalent and hexavalent). The concentrations of chromium were *below* the EPA screening level.

There are no standards or screening levels for Al in ambient air.

The blank-corrected Pb concentrations were *below* the limit of detection.

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

Sincerely,
ATC Associates, Inc.



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

Attachment