



104 East 25th St., 10th Floor  
New York, New York 10010  
www.atc-enviro.com  
212.353.8280  
Fax 212.353.8306

April 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 Samples for Metals  
P.S. 89M  
ATC Project No. 15-19125-0297**

Dear Mr. Orlan:

ATC Associates, Inc. (ATC) is pleased to provide this report of air sampling for metals in airborne dust conducted on March 14, 2002, at the referenced school. The New York City Board of Education (BOE) requested this sampling at the recommendation of Environ Corp., the 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 filters connected to battery-powered sampling pumps at a flow rate of 2 liters per minute. Pumps were calibrated before and after each sampling period. One (1) sample was collected inside the building and three (3) were collected outdoors. One blank sample was also submitted. The samples were sent to PSC Analytical Services, Inc., an American Industrial Hygiene Association-accredited laboratory in Reading, PA. Analysis was performed by NIOSH Methods 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). A copy of the analytical report is attached.

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 day the samples were collected.

The sampling locations were the 1<sup>st</sup> floor Hallway by the Cafeteria, Playground (north side), Playground (south side) and the Roof.

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.*

Mr. Bernard P. Orlan  
Air Samples for Metals  
P.S. 89 (Manhattan)

April 2, 2002

Page 2

ATC Project No. 15-19125-0297

**Results**

The metals that were found above the limits of detection were chromium (Cr) and lead (Pb). The other metals were not detected. Both Cr and Pb have been detected in the blank filters. Cr was detected in all four samples and in the blank, Pb was detected in three samples and in the blank.

When the concentrations of Cr and Pb in the blank are subtracted from those in the samples, the concentrations fall below the limits of detection for the analyses.

The Environmental Protection Agency (EPA) has set a screening level for hexavalent Cr (the more toxic form) in air of  $0.6 \text{ ug/m}^3$ , this assumes a continuous exposure for one year. The samples here were analyzed for total Cr (trivalent and hexavalent).

The EPA ambient air standard for Pb is  $1.5 \text{ ug/m}^3$  (three-month average).

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