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September 16, 2002

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

**Re: Air Sampling for Metals
Benjamin Altman School (P.S. 42M)
ATC Project No. 15-19125-0342**

Dear Mr. Orlan:

ATC Associates Inc. (ATC) is pleased to provide this report of air sampling for metals in airborne dust conducted on September 4, 2002, in the referenced school building. The New York City Department of Education (DOE) requested this sampling prior to the resumption of classes to verify that acceptable indoor air quality is being maintained.

Scope of work

ATC collected three (3) samples for metals at specified locations. Samples were collected for approximately 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. All samples were collected inside the building. Two sample blanks were 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 eleven (11) metals. The metals were aluminum (Al), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni) and zinc (Zn). A copy of the analytical laboratory report is attached.

Wagdi Abdelshahid, Industrial Hygienists and Yiannis Efstathiou, Project Manager of ATC's New York City office, collected the samples consistent with generally accepted industrial hygiene practices. As with all such sampling, there were inherent limitations created by constraints of time, operational and work practice variability, variations in air contaminant concentrations and sampling and analytical accuracy. The results of the sampling represent conditions found on the date the samples were collected.

The sampling locations were as follows: 1st Floor Main Lobby, 2nd Floor Hallway by Room 207, and 3rd Floor Hallway by Room 309.

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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.*

Results

Chromium was detected in all of the samples obtained (including the blank). Copper was also detected in two samples and blank. Blank-correcting the samples lowers Cr and Copper concentrations to below the limits of detection for the analyses. Aluminum and Iron were detected only in the Main Lobby sample and not detected in the blanks.

The Environmental Protection Agency (EPA) has set a screening level for hexavalent chromium in air of 0.6 ug/m^3 , this assumes a continuous exposure for one year. The samples here were analyzed for total chromium (trivalent and hexavalent). The concentrations are well below the EPA level.

The EPA has set no screening levels for Al, Cu or Iron in ambient air.

ATC appreciates the opportunity to provide this indoor air quality service to the DOE. Please call me at (212) 353-8280 extension 298 if you have any questions.

Sincerely,
ATC Associates, Inc.



Wagdi Abdelshahid
Industrial Hygienist

Reviewed by:



Mr. Michael G. Donovan, CIH
Manager of Industrial Hygiene Division

Attachment