NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

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July 10, 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
High School of Economics and Finance (M833)
ATC Project No. 15-19125-0291

Dear Mr. Orlan:

ATC Associates, Inc. (ATC) is pleased to provide this report of air sampling for metals conducted on June 22, 2002 at the referenced school. The New York City Board of Education (BOE) requested this sampling to ensure that acceptable air quality is being maintained.

Scope of Work

On each day, ATC collected four (4) samples for metals from locations throughout the building and outdoors. Samples were collected for 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. Three (3) samples were collected inside the building and one (1) was collected outdoors on the roof. Two (2) blank samples were also submitted per day. 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. The samples collected on each day were analyzed for a panel of twelve (12) metals. The metals were aluminum (Al), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), zinc (Zn) and lead (Pb). Copies of the analytical laboratory reports are attached.

The sampling locations were: the Main Lobby, the 5th floor by Stair B, the 9th floor by Stair B and the Roof.

Tenzin Namgyal and Wagdi Abdelshahid, Industrial Hygienists from ATC's New York City office, collected the samples consistent with accepted industrial hygiene practices. The results represent 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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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000180110

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Results

Chromium (Cr) was found above the limits of detection in all four samples and in the blanks. sample results are listed in the table:

Sample ID/ Location	Concentration in Sample (µg)	Concentration after Blank Correction ($\mu g/m^3$)
ATC-0622-833M-M1/ Main Lobby	0.396	0.002
ATC-0622-833M-M2 / 5th floor by Stair B	0.413	0.016
ATC-0622-833M-M3/ 9th floor by Stair B	0.346	BDL
ATC-0622-833M-M4/ Roof	0.417	0.019
ATC-0622-833M-M5/Blank	0.415	---
ATC-0622-833M-M6/Blank	0.394	---

After blank-correction, the Cr concentration in Sample # ATC-0622-833M, ATC-0622-833M-M2, ATC-0622-833M-M3, ATC-0622-833M-M4 were lowered to 0.002, 0.016, 0.000, 0.019 micrograms per cubic meter ($\mu g/m^3$) respectively.Sample # ATC-0622-833M-M6 was used for blank correction.

The Environmental Protection Agency (EPA) has set a screening level for hexavalent Cr (the more toxic form) in air of 0.6 $\mu g/m^3$, this assumes a continuous exposure for one year. The samples here were analyzed for total Cr (trivalent and hexavalent). These results were *below* the EPA's screening level for hexavalent Cr.

Aluminum (Al) was detected in Sample # ATC-0622-833M-M4 at a concentration of 1.47 micrograms per cubic meter ($\mu g/m^3$) .There is no ambient air standard or recommended screening level for Aluminum.

ATC appreciates the opportunity to provide this indoor air quality service to the BOE. Please call (212) 353-8280 extension 212 or extension 290 if you have any questions.

Sincerely,
ATC Associates, Inc.

Prasad Doddapaneni
Senior Project Manager

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

Attachment

NYC-WTC_000180111