NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

104 East 25th :
New York, New York 1001
www.atc-enviro.cor
212.353.828
Fax 212.353.830

January 29, 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 & Mercury Vapor
Stuyvesant High School
ATC Project No. 15-19125-0246

Dear Mr. Orlan:

ATC Associates, Inc. (ATC) is pleased to provide this report of air sampling for metals in airborne dust and mercury (Hg) vapor conducted on December 13, 2001, at the referenced school. The New York City Board of Education (BOE) requested this sampling at the recommendation of H. A. Bader, a consultant retained by the parents association.

Scope of Work

ATC collected three (3) samples each for metals and Hg at specified locations. Metal samples were collected for eight (8) 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 one (1) was collected on the roof. One blank sample was also submitted. 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 report is attached. Analysis was performed by NIOSH Methods 7300M.

ATC collected three (3) samples for mercury vapor using Carulite® (Hydrar) tubes connected to battery-powered sampling pumps calibrated to collect 0.2 liters of air per minute. The samples were collected at the same locations as those for metals. One blank tube was also submitted. Analysis was performed by means of a mercury analyzer according to NIOSH Method 6009.

All samples were sent to PSC Analytical Services, Inc., an American Industrial Hygiene Association-accredited laboratory in Reading, PA. A copy of the analytical report is attached.

The sampling locations, specified by the parent's association consultant, were as follows:

- 1st floor lobby;
- 2nd floor bridge entrance hallway;
- Roof by the air intake.

NYC 9/11 Public Portal Document

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.

The Environmental Protection Agency has set a screening level for hexavalent Cr (the more toxic form) of 0.6 micrograms per cubic meter of air (0.6 ug/m^3). These above samples were analyzed for total Cr (trivalent and hexavalent). The EPA level is based on continuous exposure to hexavalent chromium for one year.

The EPA has no standard for Hg in ambient air.

Results

Metals

The levels of airborne metals did not exceed the limits of detection in any of the samples except for Cr as follows:

Sample number ATC-01213-STY- M1 (obtained from 1st floor main lobby) was reported to be 0.000306 mg/m^3; *Blank corrected 0.000280 mg/m^3.*

Sample number ATC-01213-STY- M4 (blank) was reported to be 0.026 micrograms per filter. The result of the blank indicates that Cr is a contaminant on the field blank.

All Cr levels were *below* the EPA level of 0.6 ug/m^3.

Mercury

Mercury (Hg) was not detected in any of the samples at a level greater than in the blank..

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

NYC-WTC_000175031