NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

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June 6, 2002

Mr. Bernard P. Orlan
New York City Board of Education
28-11 Queens Plaza North
Long Island City, NY 11101

Re: Report of Environmental Sampling
Unit Ventilators & HVAC System
Stuyvesant High School (M477)/IS 306X

Dear Mr. Orlan:

As per New York City Board of Education (NYCBOE) request, ATC Associates, Inc. conducted environmental sampling at Stuyvesant High School located at 345 Chambers Street, New York, NY and IS 306X, located at 40 West Tremont Avenue, Bronx, NY. This testing was conducted on April 27, 2002 and April 28, 2002 respectively.

The testing included the collection of dust wipe samples for lead analysis and bulk samples for asbestos and dioxin analysis. Samples were collected in representative locations within the Unit Ventilators and within the HVAC systems at both of these schools. IS 306X was selected as a "control" site in order to compare sample results for lead and asbestos samples for both schools. This school was selected based on the fact that it has a similar construction date and ventilation system as Stuyvesant High School.

ATC performed a visual inspection within each of the units to be tested at each school to determine if visible dust was present prior to collecting each sample. Samples were collected at locations where visible accumulations of dust were present. Stuyvesant H.S. Parents Association consultant, Mr. H.A. Bader was present during the sampling procedures at Stuyvesant High School on April 27, 2002 and recommended the locations where the samples were collected.

The analytical results of the testing conducted are as follows:

A. LEAD DUST WIPE SAMPLING -UNIT VENTILATORS

1. STUYVESANT HIGH SCHOOL

A total of ten (10) dust wipe samples were collected within selected unit ventilators on the north and south sides of the building. Laboratory analysis detected lead concentrations which ranged between 1,902.7 $\mu g/ft^2$ to 500.6 $\mu g/ft^2$. The average concentration was 1,174.89 $\mu g/ft^2$.

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2. IS 306X

A total of ten (10) dust wipe samples were collected from selected unit ventilators throughout the school. Laboratory analysis detected lead concentrations which ranged between 1,817.0 $\mu g/ft^2$ to 259.4 $\mu g/ft^2$. The average concentration was 806.38 $\mu g/ft^2$.

B. LEAD WIPE SAMPLING –HVAC UNITS

1. STUYVESANT HIGH SCHOOL

A total of fifteen (15) dust wipe samples were collected from various HVAC units throughout the school. Laboratory analysis detected lead concentrations which ranged between 253.0 $\mu g/ft^2$ to less than the limit of detection of 9.0 $\mu g/ft^2$. The average concentration was 89.16 $\mu g/ft^2$.

2. IS 306X

A total of eighteen (18) dust wipe samples were collected from various HVAC units throughout the school. Laboratory analysis detected lead concentrations which ranged between 466.7 $\mu g/ft^2$ to 18.5 $\mu g/ft^2$. The average concentration was 159.45 $\mu g/ft^2$.

Exact sample locations and analytical laboratory results for the samples collected at each school is included in Appendix A of this report.

C. DIOXIN BULK SAMPLING – STUYVESANT HIGH SCHOOL

ATC collected twenty-four (24) samples for PCDDs/PCDFs (plus two blanks) within Unit Ventilators and HVAC units at Stuyvesant High School. All samples were submitted for laboratory analysis to Pace Analytical Services, Inc. (Pace) of Minneapolis, MN, a laboratory experienced in dioxin analysis. The analysis was performed by modified EPA Method 8290 using combined capillary column gas chromatography/high resolution mass spectrometry.

Each sample was analyzed for sixteen (16) PCDD/PCDF isomers. The results for each isomer were then converted to 2, 3, 7, 8 tetrachloro-dibenzo-p-dioxin (2, 3, 7, 8-TCDD) equivalents by multiplying by an established equivalency factor. This provides a single value for the analytical results for each sample.

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Sample results were compared to the New York State Department of Environmental Conservation (NYSDEC) established guidelines of 0.6 parts per billion (0.6 ppb) for allowable dioxin levels in soil as per NYSDEC Memorandum HWR-94-4046, dated January 24, 1994.

Samples were collected in areas recommended by the Parents Association consultant Mr. H.A. Bader, who was present during the sampling procedures. The analytical results for the samples collected are as follows:

1. UNIT VENTILATORS

A total of ten (10) bulk samples were collected from settled dust within selected unit ventilators on the north and south sides of the building. Dioxin concentrations ranged from 0.000037 ppb to 0.003100 ppb. The concentration of dioxins in all samples collected from settled dust located within the unit ventilators are below the NYSDEC guideline of 0.6 ppb for allowable concentrations of dioxins in soil.

2. HVAC UNITS

A total of fourteen (14) bulk samples were collected from settled dust within the HVAC system in various locations. Dioxin concentrations ranged from 0.0000046 ppb to 0.000160 ppb. The concentration of dioxins in all samples collected from settled dust located within the HVAC units are all below the NYSDEC guideline of 0.6 ppb for allowable concentrations of dioxins on soil.

Exact sample locations and analytical laboratory results for the dioxin bulk samples collected is included in Appendix B of this report.

D. ASBESTOS BULK SAMPLING –UNIT VENTILATORS

1. STUYVESANT HIGH SCHOOL

A total of ten (10) asbestos bulk samples were collected from settled dust within Unit Ventilators on the north and south sides of the building. All samples were analyzed utilizing Polarized Light Microscopy (PLM) methodology. No asbestos was detected in any of the bulk samples collected in these locations.

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2. IS 306X

A total of ten (10) asbestos bulk samples were collected from various Unit Ventilators throughout the school. All samples were analyzed utilizing Polarized Light Microscopy (PLM) methodology. No asbestos was detected in any of the bulk samples collected in these locations.

E. ASBESTOS BULK SAMPLING –HVAC UNITS

1. STUYVESANT HIGH SCHOOL

A total of fifteen (15) asbestos bulk samples were collected from various HVAC units throughout the school. All samples were analyzed utilizing Polarized Light Microscopy (PLM) methodology. No asbestos was detected in any of the bulk samples collected in these locations.

2. IS 306X

A total of eighteen (18) asbestos bulk samples were collected from various HVAC units throughout the school. All samples were analyzed utilizing Polarized Light Microscopy (PLM) methodology. No asbestos was detected in any of the bulk samples collected in these locations.

Exact sample locations and analytical laboratory results for the asbestos bulk samples collected at each school is included in Appendix A of this report.

Should you have any questions or require additional information regarding these sample results, please do not hesitate to contact us at (212) 353-8280.

Sincerely,

ATC ASSOCIATES INC.

Mark Terjesen
Operations Manager

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

Attachment

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