NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

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May 24, 2002

Mr. Bernard P. Orlan
Director, Environmental Health & Safety
New York City Board of Education
28-11 Queens Plaza North
Long Island City, NY 11101-4008

Re: Respirable Particulate Monitoring
Various School Locations
ATC Project No. 15-19125-0314

Dear Mr. Orlan:

ATC Associates Inc. (ATC) is pleased to provide this report of the results of real-time air monitoring of respirable particulates conducted on May 23, 2002, at numerous locations. The New York City Board of Education (BOE) requested this monitoring to obtain comparison data for lower Manhattan schools.

SCOPE OF WORK

Sonny Ramlal, Environmental Technician from ATC's New York City office, conducted the monitoring. ATC's findings are based on real-time environmental measurements. Real-time readings of respirable particulates $PM_{2.5}$) were collected from outdoors and limited indoor locations.

ATC recorded concentrations of respirable particulates with a Dust Trak® Aerosol Monitor Model 8520, manufactured by TSI, Inc.

The assessment was performed consistent with generally accepted air quality assessment practices. As with all such assessments, there were inherent limitations created by constraints of time, operational and work practice variability, variations in air quality parameters, and sampling and analytical accuracy. The results of the sampling represent conditions found on the date of the survey and may not represent conditions found at other times.

EVALUATION CRITERIA

The target guidelines for the parameter that ATC evaluated during this investigation are shown in the following table.

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TARGET GUIDELINES FOR AIR QUALITY PARAMETERS EVALUATED*

PARAMETER	TARGET LEVEL	AGENCY
Respirable Particulates ($PM_{2.5}$)	65 micrograms per cubic meter of air ($\mu g/m^3$) 24 hour average	USEPA NPAAQS
Respirable Particulates ($PM_{2.5}$)	40 $\mu g/m^3$ 24 hour average	USEPA recommendation for children/sensitive individuals

USEPA = United States Environmental Protection Agency
NPAAQS = National Primary Ambient-Air Quality Standard

REAL-TIME SAMPLING RESULTS

Thirty-one (31) indoor and thirty-four (34) outdoor respirable particulates measurements* were collected from twenty-nine (29) school locations in Manhattan, ranging from West 11th Street to East 33rd Street. The measurements were made from 5:53 A.M. to 4:24 P.M. The IAQ field report forms are provided as the Attachment.

The outdoor $PM_{2.5}$ concentrations ranged from 37 $\mu g/m^3$ to 94 $\mu g/m^3$ with an average of 69 $\mu g/m^3$. The indoor concentrations ranged from 12 $\mu g/m^3$ to 71 $\mu g/m^3$ with an average of 48 $\mu g/m^3$. One (1) of the indoor and twenty-four (24) of the outdoor readings were above the NPAAQS of 65 $\mu g/m^3$ 24-hour average concentration of particulate matter 2.5 micrometers or less in acrodynamic diameter. Twenty-three (23) of the indoor and thirty-three (33) of the outdoor readings were above the USEPA recommended guideline for children and sensitive individuals of 40 $\mu g/m^3$.

* These measurements were instantaneous readings, the NPAAQS and the recommendation for children are 24-hour averages.

CONCLUSION

Based on our measurements, one (1) of the indoor and twenty-four (24) of the outdoor readings were above the NPAAQS of 65 $\mu g/m^3$ 24-hour average concentration of particulate matter 2.5 micrometers or less in aerodynamic diameter. Twenty-three (23) of the indoor and thirty-three (33) of the outdoor readings were above the USEPA recommended guideline for children and sensitive individuals of 40 $\mu g/m^3$.

It is our pleasure to provide these air quality consultative services to the New York City Board of Education. If you have any questions about this report, please call (212) 353-8280, extension 212 or 211.

Sincerely,
ATC ASSOCIATES INC.

Arriel Javal
Senior Project Manager

Reviewed by:

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

Attachment

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