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July 1, 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: Wipe Samples for Dioxins**
**High School for Leadership and Public Service (M894)**
**ATC Project No. 15-19125-0290**

Dear Mr. Orlan:

ATC Associates Inc. (ATC) is pleased to provide this report of the results of the wipe samples for polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) collected on May 17, 2002 at the referenced location. The New York City Board of Education (BOE) requested these samples to evaluate possible contamination in the school building.

## SCOPE OF WORK

The samples were collected using gauze pads and hexane as a solvent. The pads and solvent were provided and samples were analyzed by 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.

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

## WIPE SAMPLING RESULTS

ATC submitted three (3) wipe samples for PCDDs/PCDFs to Pace for analysis. A copy of the laboratory analysis report is provided in the Attachment. Samples were taken from areas in various parts of the building. The sample area was one square meter (1 $m^2$).

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.



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This provides a single value (in nanograms) for the analytical results for each sample. The sample locations and the results are shown in the table.

**DIOXIN WIPE SAMPLE RESULTS**
**(2, 3, 7, 8 TCDD EQUIVALENTS)**
**May 17, 2002**

| LOCATION/SAMPLE NUMBER | DIOXIN CONCENTRATION ($ng/m^2$) |
|---|---|
| 1st Floor Main Lobby – Floor /DX1 | 0.00036 |
| 5th Floor Hallway by Elevator - Floor /DX2 | 0.00048 |
| 10th Floor Hallway by Elevator - Floor /DX3 | 0.00027 |

The New York State Department of Health (NYSDOH) established guidelines for dioxin for the re-occupancy of the Binghamton State Office Building following a PCB fire. The NYSDOH guideline for dioxin on surfaces is *25 nanograms per square meter (25 $ng/m^2$)*.

The concentrations on indoor surfaces ranged from 0.00027 to 0.00036 nanograms per square meter ($ng/m^2$). The levels found in all of these samples are below the NYSDOH guideline of 25 $ng/m^2$.

It is not possible to determine when the 2, 3, 7, 8 - TCDD equivalents detected in these samples were deposited. Dioxin samples were not collected from these locations prior to January 2, 2002.

It is our pleasure to provide these indoor environmental services to the NYC Board of Education. If you have any questions about this report, please call (212) 353-8280, extension 212.

Sincerely,
***ATC ASSOCIATES INC.***

Yiannis Efstathiou
Senior Project Manager

***Reviewed By:***

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

Attachment



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