April 12, 2013

Mr. Bernard P. Orlan
Director, Environmental Health & Safety
New York City Department of Education
44-36 Vernon Blvd., 3rd Floor
Long Island City, NY 11101

**Re: PCB Wipe Sampling Report**
**P.S. 41M**
**Cardno ATC Project: No. 42672.1840**
**Work Order No. 00497890 03**

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at P.S. 41M, located at 116 West 11th Street, New York, NY 10011. The inspection was performed by Mr. Michael Wang on April 10, 2013 and it was limited to wipe samples collection and analysis in Room #403 to determine if any surface was contaminated with PCB, following the removal of failed T-12 light fixture ballast. The light fixture ballast was removed by Triumvirate Environmental, a hazardous waste management contractor retained by NYC-DOE to provide removal and clean up services.

## BACKGROUND

Polychlorinated biphenyls are a group of man-made chemicals that can cause a number of different harmful effects. PCB's are either oily liquids or solids and are colorless to light yellow. There are no known natural sources of PCB's in the environment. PCB's were used mainly in making electrical transformers, capacitors and other heat transfer devices but some were also used in building materials.

PCB's may be present in older fluorescent light fixtures in any school building that had fluorescent lights installed before 1979 and never had a lighting upgrade. The ballast is a transformer inside the light fixture that is not accessible unless the light is disassembled. PCB's are contained within the light ballasts' capacitors and in the ballasts' potting material (a black tar-like substance used to protect the capacitor). As the ballast ages, it can overheat causing a burning or smoky odor or in some cases, causing tar from the potting material or oil to drip from the fixture.

Indications of leaking PCB ballasts may include the presence of an oily film on the metal casing, a leaking putty-like compound (the potting material), or discoloration of the metal casing. Other leaking signs include drips, buzzing, and discoloration of the light ends. Almost all ballast casings are a single color (often black or white) with a contrasting label. Leaks, when present, are usually found around the metal seams of the casing.

Indications of burning PCB ballast may include: an acrid and burning tar odor; melted tar oozing from the casing seams; and visible electrical lead bushings. It is very rare for PCB ballasts to actually catch on fire.

## Evaluation Criteria for PCB Spills

PCB manufacture, use, storage and disposal are regulated by U.S. EPA under TSCA and Part 761, Title 40 of the Code of Federal Regulations (40 CFR Part 761). TSCA regulates any materials or wastes that contain PCBs at concentrations of 50 ppm (parts per million) or greater. Light ballasts containing PCB oil in the small capacitor or the potting compound are included in this regulation. Leaking PCB ballasts are regulated as hazardous wastes and toxic substances. Proper handling and cleanup of leaking PCB ballasts is necessary to protect public health and the environment. TSCA regulates disposal of PCB wastes with concentrations over 1 ppm. Leaking PCB light ballasts often generate wastes in excess of 1 ppm. In addition, PCBs are regulated under TSCA if an impervious surface shows 10 micrograms (ug) per 100 square centimeters ($cm^2$) of PCBs. Examples of this in the classroom are the surfaces of floors, desks, and bookcases.

## PCB WIPE SAMPLES

Cardno ATC collected a total of three (3) samples (two surface samples and one blank) within Room #403 and subsequently sent them to New York Environmental and Analytical Labs., Inc. for analysis via EPA 8082 Method. All samples were obtained in accordance with EPA 40CFR 761.123 and NYC-DOE *"PCB Light Ballasts Wipe Sampling Protocol"* and included using a 10x10 cm template to outline the sample area and a sterile gauze pad wetted with hexane or reagent grade acetone to collect the sample. The hexane or reagent grade acetone wetted pad was used to wipe the area outlined with the 100 $cm^2$ template or the measured area if the area is an irregular surface. The area was wiped completely twice, from left to right and then from top to bottom. For waxed surfaces such as floors the wetting agent used is de-ionized water or distilled water because solvents used on waxed surfaces will not give an accurate analysis for PCB's. The wipe media was then inserted into a 6 ounce sterilized glass vial and delivered to the laboratory.

The following table summarizes the inspection results:

**Table 1.0 PCB Wipe Sample Results (after ballast removal)**

| Sample Id. No. | Location | Type of Surface Sampled | Sample Media | Detection Limit ($ug/cm^2$) | Result ($ug/cm^2$) |
|---|---|---|---|---|---|
| 01 | Blank | Blank | Gauze Pad w/ hexane or reagent acetone | 3 | <3 |
| 02 | Room #403 | Table | Gauze Pad w/ hexane or reagent acetone | 0.03 | <0.03 |
| 03 | Room #403 | Floor (9x9 VFT) | Gauze Pad w/ deionized water | 0.03 | <0.03 |

## CONCLUSIONS

Wipe samples obtained from table and the floor within Room #403 show PCB concentrations to be below the detection limit.

Cardno ATC is pleased to be of service to the New York City Department of Education. Please feel free to contact us at (212) 353 8280 ext. 268 if you should have any questions or comments concerning this report.

**Cardno ATC**

Mike Balota
Project Manager

Appendixes: A- PCB Data and Chain of Custody Forms
B- PCB Analytical Results
C- Laboratory Certifications
D- NYC DOE Work Order Request

# APPENDIX A

## PCB DATA AND CHAIN OF CUSTODY FORMS

Cardno ATC

Shaping the Future



BATCH NO.

# PCB WIPE SAMPLING COC

38395

## PROJECT INFORMATION

| | | | |
|---|---|---|---|
| 1. Client: NYC-DOE | 2. Project Name: M041 | 3a. ATC Project No.: 42672.1840 | 4a. Project Manager: Dragos Balota |
| | 2a. Project Address: 116 WILL ST | 3b. Task No.: 0001 | 4b. Inspector: M. WANG / M. BALOTA |
| 5. Date: 4/10/13 | 6. Building Name: M041 | 8. Turnaround Time: RUSH (6 hours or less) | 9. Comments (Field) Analyze all samples via 8082 Method. |
| | 7. Location: RM. 403 | | |

## WIPE SAMPLE LOCATION

| 10. Sample ID No. | 11. LAB ID No. | 12. Room No. | 13A. Surface Sampled | 13B. Sample Coordinates (x and y) | 14. MEDIA | 15. Area Sampled (cm²) | 16. MDL (ug/ cm²) | 16A. RESULT (ug/ cm²) |
|---|---|---|---|---|---|---|---|---|
| 01 | ← | | BLANK | — | Gauze Pad w/ Hexane | → | 3ug | < 3ug |
| 02 | | 403 | TABLE SURFACE UNDER BALLAST/FIXTURE | X = 9.5 Y = 12.7 | ↓ | 100 | 0.03 | <0.03 |
| 03 | | ↓ | FLOOR (9"x9" TAN VFT) | X = 6.8 Y = 11.6 | DEION. $H_2O$ | ↓ | 0.03 | <0.03 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

0130798

C2649

## CHAIN OF CUSTODY

| 17. Relinquished By | 18. Date | 19. Time | 20. Received By | 21. Date | 22. Time | 23. Method of Submittal | |
|---|---|---|---|---|---|---|---|
| I. | 4/10/13 | | | 4-11-13 | 23:00 | Field | |
| | | | | | | Walk In | ✓ |
| II. | | | | | | US Mail | |
| | | | | | | Fed-Ex | |
| III. | | | | | | Other | |

## LABORATORY INFORMATION

| 24. Name and Signature: | 25. Date | 26 Time | 27. Comments: |
|---|---|---|---|
| 24a. Analyzed By: | | | Please email results to dragos.balota@cardno.com |
| 24b. Analyzed By: | | | |
| 24c. QC By: | | | |

# APPENDIX B

## PCB ANALYTICAL RESULTS

NEW YORK ENVIRONMENTAL

88 HARBOR ROAD
PORT WASHINGTON, NY 11050
(516) 944-9500 • FAX (516) 944-9507
www.nyenvironmental.com

| | | | |
|---|---|---|---|
| **CLIENT:** | Cardno ATC<br>104 E. 25 St. 10th fl.<br>New York, NY 10011 | **REPORT NO.**<br>**PROJECT NO.** | 2130798<br>38395 |
| | | **SAMPLED:** | 4/10/13 |
| | 42672.1840 | **RECEIVED:** | 4/10/13 |
| **PROJECT:** | M041 | **ANALYZED:** | 4/10/13 |
| | 116 W11 St. | **REPORTED:** | 4/11/13 |

**ANALYTICAL REPORT**

# PCB WIPE

**GC/ECD (EPA METHOD 8082)**

COMPOSITED SAMPLE ID: **01**
MATRIX: SURFACE WIPE
SAMPLE LOCATION: **Blank**

BATCH NO. **C2649-1**

| TYPE OF PCB | CAS NO. | RESULT (ug) | MINIMUM DETECTION LIMIT (ug) |
|---|---|---|---|
| PCB 1016 | 12674-11-2 | <3 | 3 |
| PCB 1221 | 11104-28-2 | <3 | 3 |
| PCB 1232 | 11141-16-5 | <3 | 3 |
| PCB 1242 | 53469-21-9 | <3 | 3 |
| PCB 1248 | 12672-29-6 | <3 | 3 |
| PCB 1254 | 11097-69-1 | <3 | 3 |
| PCB 1260 | 11096-82-5 | <3 | 3 |

NICOLE CHEUNG
CHEMIST

LI TSANG
LABORATORY DIRECTOR

The report relates only to the items tested, as received by the laboratory. This report cannot be used in part and may only be used in full with this laboratory's approval. This report must not be used in any way to claim product endorsement by New York Environmental and ELAP of NYSDOH.



NYSDOH ELAP #: 11510

NEW YORK ENVIRONMENTAL

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| | | | |
|---|---|---|---|
| **CLIENT:** | Cardno ATC<br>104 E. 25 St. 10th fl.<br>New York, NY 10011 | **REPORT NO.**<br>**PROJECT NO.** | 2130798<br>38395 |
| | | **SAMPLED:** | 4/10/13 |
| | 42672.1840 | **RECEIVED:** | 4/10/13 |
| **PROJECT:** | M041 | **ANALYZED:** | 4/10/13 |
| | 116 W11 St. | **REPORTED:** | 4/11/13 |

**ANALYTICAL REPORT**

# PCB WIPE

**GC/ECD (EPA METHOD 8082)**

COMPOSITED SAMPLE ID: **02** BATCH NO. **C2649-2**
MATRIX: SURFACE WIPE
SAMPLE LOCATION: **Room 403 (Table Surface under Ballast/Fixture)**

| TYPE OF PCB | CAS NO. | RESULT ($ug/cm^2$) | MINIMUM DETECTION LIMIT ($ug/cm^2$) |
|---|---|---|---|
| PCB 1016 | 12674-11-2 | <0.03 | 0.03 |
| PCB 1221 | 11104-28-2 | <0.03 | 0.03 |
| PCB 1232 | 11141-16-5 | <0.03 | 0.03 |
| PCB 1242 | 53469-21-9 | <0.03 | 0.03 |
| PCB 1248 | 12672-29-6 | <0.03 | 0.03 |
| PCB 1254 | 11097-69-1 | <0.03 | 0.03 |
| PCB 1260 | 11096-82-5 | <0.03 | 0.03 |

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| | | | |
|---|---|---|---|
| **CLIENT:** | Cardno ATC<br>104 E. 25 St. 10th fl.<br>New York, NY 10011 | **REPORT NO.**<br>**PROJECT NO.** | 2130798<br>38395 |
| | | **SAMPLED:** | 4/10/13 |
| | 42672.1840 | **RECEIVED:** | 4/10/13 |
| **PROJECT:** | M041 | **ANALYZED:** | 4/10/13 |
| | 116 W11 St. | **REPORTED:** | 4/11/13 |

**ANALYTICAL REPORT**

# PCB WIPE

**GC/ECD (EPA METHOD 8082)**

COMPOSITED SAMPLE ID: **03** BATCH NO. **C2649-3**
MATRIX: SURFACE WIPE
SAMPLE LOCATION: **Room 403 (Floor, 9"x9" Tan VFT)**

| TYPE OF PCB | CAS NO. | RESULT ($ug/cm^2$) | MINIMUM DETECTION LIMIT ($ug/cm^2$) |
|---|---|---|---|
| PCB 1016 | 12674-11-2 | <0.03 | 0.03 |
| PCB 1221 | 11104-28-2 | <0.03 | 0.03 |
| PCB 1232 | 11141-16-5 | <0.03 | 0.03 |
| PCB 1242 | 53469-21-9 | <0.03 | 0.03 |
| PCB 1248 | 12672-29-6 | <0.03 | 0.03 |
| PCB 1254 | 11097-69-1 | <0.03 | 0.03 |
| PCB 1260 | 11096-82-5 | <0.03 | 0.03 |

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CHEMIST

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LABORATORY DIRECTOR

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NYSDOH ELAP #: 11510

# APPENDIX C

## LABOARTORY CERTIFICATIONS

**NEW YORK STATE DEPARTMENT OF HEALTH**
**WADSWORTH CENTER**

Expires 12:01 AM April 01, 2014
Issued April 01, 2013

## CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

*Issued in accordance with and pursuant to section 502 Public Health Law of New York State*

*MR. LI TSANG*
*NY ENVIRONMENTAL AND ANALYTICAL LABS INC*
*88 HARBOR ROAD*
*PORT WASHINGTON, NY 11050*

*NY Lab Id No: 11510*

*is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE*
*All approved analytes are listed below:*

| | |
|---|---|
| **Characteristic Testing** | |
| TCLP | EPA 1311 |
| **Polychlorinated Biphenyls** | |
| PCB-1016 | EPA 8082 |
| PCB-1221 | EPA 8082 |
| PCB-1232 | EPA 8082 |
| PCB-1242 | EPA 8082 |
| PCB-1248 | EPA 8082 |
| PCB-1254 | EPA 8082 |
| PCB-1260 | EPA 8082 |
| **Sample Preparation Methods** | |
| | EPA 3550B |

Serial No.: 48693

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

# APPENDIX D

## NYC DOE WORK ORDER REQUEST

Facility: DSF DIVISION OF SCHOOL FACILITIES
Unit : M Project :
W/O Type: CO Priority: 04 W/O Dspln: H
Planner : TFANIZZ FANIZZI
W/O Title : 02/M041/77 REMOVE FAILED BALLAST
W/O Task Title: 77/02M041/ PCB AIR SAMPLES IN ROOM 4
Written To : P.S. 41 - MANHATTAN
Task Dspln : Completed By:

**Work Order Package**

**00497890 03**

Rpt : TIPMC11
Date: 04/10/2013

NEW YORK CITY
DEPT. OF EDUCATION



## Work Order Task Written To

Facility : DSF
Division :
Equipment : ABLDG M041
Work Item :
Equip. Tag:
UTC :
Catalog ID:
Client/Act: IIOU4618
Location : M00 60600049 000001 116 WEST 11 ST, MANHATTAN, NY 10011
Cost Centr: G839
Percentage: 100.000

Unit : M
Area : ISC3
Component:
Eqt. List:
Alt:
Tbl/Brkdwn: (Past 12 mo)
Job Type : CO UCR: LB13
IGOR IOUSTOUS
Activity :
Acct No. : GL

Op Sys : GEO-02
Sys/Cls: M041
Ops Review Reqd: N
User Def:

## Work Order Task Instructions

CONDUCT PCM SAMPLES IN ROOM 403.
`` ``

BERNIE ASSIGN W/O TO ATC 04/10/13 (PCM SAMPLES).

## Completion Comments on Work Performed

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : _____

***** E N D O F R E P O R T *****