

May 8, 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. 170K
Cardno ATC Project: No. 42672.2005
Work Order No. 00499944 04**

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at P.S. 170K, located at 7109 6th Avenue, Brooklyn, NY 11209. The inspection was performed by Mr. Kayik Hung on May 7, 2013 and it was limited to wipe samples collection and analysis in Room #201 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 (cm²) 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 five (5) samples (four surface samples and one blank) within Room #201 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 cm² 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	3.5	<3.5
02	Room #201	Floor @ area marked by custodian (x=9.0, y=4.2)	Gauze Pad w/ deionized water	0.035	<0.035
03	Room #201	Floor @ area marked by custodian (x=3.5, y=4.1)	Gauze Pad w/ deionized water	0.035	<0.035

Sample Id. No.	Location	Type of Surface Sampled	Sample Media	Detection Limit (ug/cm ²)	Result (ug/cm ²)
04	Room #201	Floor @ area marked by custodian (x=7.0, y=1.0)	Gauze Pad w/ deionized water	0.035	<0.035
05	Room #201	Floor @ area marked by custodian (x=6.8, y=6.2)	Gauze Pad w/ deionized water	0.035	<0.035

CONCLUSIONS

Wipe samples obtained from floor within Room #201 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

PCB WIPE SAMPLING COC

38471

PROJECT INFORMATION

1. Client: NYC-DOE		2. Project Name: P.S. 170K	3a. ATC Project No.: 42672. 2005	4a. Project Manager: Dragos Balota
5. Date: 05/07/13		2a. Project Address: 7109 6th Ave BK, NY 11209	3b. Task No.: 0001	4b. Inspector: Kayik Hung
6. Building Name: P.S.		8. Turnaround Time: RUSH (6 hours or less)		9. Comment s (Field) Analyze all samples via 8082 Method.
7. Location: Room # 201				

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 (cm ²)	16. MDL (ug/cm ²)	16A. RESULT (ug/cm ²)
01			Blank Sample		Gauze Pad w/ Hexane		3.5ug	ND ↳ 3.5ug
02		201	12x12 green floor tile (North)	X 9.02 Y 4.24	Gauze Pad w/ Distilled water		0.035	ND ↳ 0.035
03		201	(south)	X 3.5 Y 4.12			0.035	ND ↳ 0.035
04		201	(East)	X 7.04 Y 1.00			0.035	ND ↳ 0.035
05		201	(west)	X 6.8 Y 6.2			0.035	ND ↳ 0.035
 c 2 6 9 7								

CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. Kayik Hung	05/07/13		P. Emmel	5/8/13		Field
II.						Walk In
III.						US Mail
						Fed-Ex
						Other

LABORATORY INFORMATION

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

APPENDIX B

PCB ANALYTICAL RESULTS

CLIENT: Cardno ATC
104 E. 25 St. 10th fl.
New York, NY 10011

42672.2005
PROJECT: PS 170K
7109 6th Avenue, Brooklyn, NY

REPORT NO. 2131173
PROJECT NO. 38471

SAMPLED: 5/7/13
RECEIVED: 5/8/13
ANALYZED: 5/8/13
REPORTED: 5/8/13

ANALYTICAL REPORT

PCB WIPE
GC/ECD (EPA METHOD 8082)

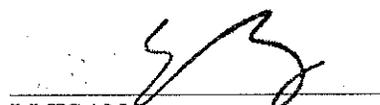
COMPOSITED SAMPLE ID: 01
MATRIX: SURFACE WIPE
SAMPLE LOCATION: Blank

BATCH NO. C2697-1

TYPE OF PCB	CAS NO.	RESULT (ug)	MINIMUM DETECTION LIMIT (ug)
PCB 1016	12674-11-2	<3.5	3.5
PCB 1221	11104-28-2	<3.5	3.5
PCB 1232	11141-16-5	<3.5	3.5
PCB 1242	53469-21-9	<3.5	3.5
PCB 1248	12672-29-6	<3.5	3.5
PCB 1254	11097-69-1	<3.5	3.5
PCB 1260	11096-82-5	<3.5	3.5



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.

CLIENT: Cardno ATC
104 E. 25 St. 10th fl.
New York, NY 10011

PROJECT: 42672.2005
PS 170K
7109 6th Avenue, Brooklyn, NY

REPORT NO. 2131173
PROJECT NO. 38471

SAMPLED: 5/7/13
RECEIVED: 5/8/13
ANALYZED: 5/8/13
REPORTED: 5/8/13

ANALYTICAL REPORT

PCB WIPE
GC/ECD (EPA METHOD 8082)

COMPOSITED SAMPLE ID: 02

BATCH NO. C2697-2

MATRIX: SURFACE WIPE

SAMPLE LOCATION: Room 201 (12x12 Green Floor Tile, North)

TYPE OF PCB	CAS NO.	RESULT (ug/cm ²)	MINIMUM DETECTION LIMIT (ug/cm ²)
PCB 1016	12674-11-2	<0.035	0.035
PCB 1221	11104-28-2	<0.035	0.035
PCB 1232	11141-16-5	<0.035	0.035
PCB 1242	53469-21-9	<0.035	0.035
PCB 1248	12672-29-6	<0.035	0.035
PCB 1254	11097-69-1	<0.035	0.035
PCB 1260	11096-82-5	<0.035	0.035

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New York, NY 10011

42672.2005

PROJECT: PS 170K
7109 6th Avenue, Brooklyn, NY

REPORT NO. 2131173
PROJECT NO. 38471

SAMPLED: 5/7/13
RECEIVED: 5/8/13
ANALYZED: 5/8/13
REPORTED: 5/8/13

ANALYTICAL REPORT

PCB WIPE
GC/ECD (EPA METHOD 8082)

COMPOSITED SAMPLE ID: 03

BATCH NO. C2697-3

MATRIX: SURFACE WIPE

SAMPLE LOCATION: Room 201 (12x12 Green Floor Tile, South)

TYPE OF PCB	CAS NO.	RESULT (ug/cm ²)	MINIMUM DETECTION LIMIT (ug/cm ²)
PCB 1016	12674-11-2	<0.035	0.035
PCB 1221	11104-28-2	<0.035	0.035
PCB 1232	11141-16-5	<0.035	0.035
PCB 1242	53469-21-9	<0.035	0.035
PCB 1248	12672-29-6	<0.035	0.035
PCB 1254	11097-69-1	<0.035	0.035
PCB 1260	11096-82-5	<0.035	0.035



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CLIENT: Cardno ATC
104 E. 25 St. 10th fl.
New York, NY 10011

REPORT NO. 2131173
PROJECT NO. 38471

PROJECT: 42672.2005
PS 170K
7109 6th Avenue, Brooklyn, NY

SAMPLED: 5/7/13
RECEIVED: 5/8/13
ANALYZED: 5/8/13
REPORTED: 5/8/13

ANALYTICAL REPORT

PCB WIPE
GC/ECD (EPA METHOD 8082)

COMPOSITED SAMPLE ID: 05

BATCH NO. C2697-5

MATRIX: SURFACE WIPE

SAMPLE LOCATION: Room 201 (12x12 Green Floor Tile, West)

TYPE OF PCB	CAS NO.	RESULT (ug/cm ²)	MINIMUM DETECTION LIMIT (ug/cm ²)
PCB 1016	12674-11-2	<0.035	0.035
PCB 1221	11104-28-2	<0.035	0.035
PCB 1232	11141-16-5	<0.035	0.035
PCB 1242	53469-21-9	<0.035	0.035
PCB 1248	12672-29-6	<0.035	0.035
PCB 1254	11097-69-1	<0.035	0.035
PCB 1260	11096-82-5	<0.035	0.035



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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. LITSANG
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 (516) 485-3570 to verify the laboratory's accreditation status.



APPENDIX D

NYC DOE WORK ORDER REQUEST

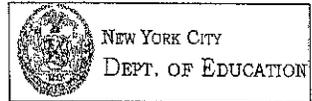
Facility: DSF DIVISION OF SCHOOL FACILITIES
Unit : K Project :
W/O Type: CO Priority: 04 W/O Dspln: H
Planner : DSCANNA SCANNAPIECO
W/O Title : 75/20K170/ BURNT OUT & LEAKING T-12
W/O Task Title: 77/20K170/ ABATEMENT OF PCB WIRING
Written To : P.S. 170 - BROOKLYN
Task Dspln : Completed By:



Work Order Package

00499944 04

Rpt : TIPMC11
Date: 05/03/2013



Page: 1

Work Order Task Written To

Facility : DSF Unit : K Op Sys : GEO-20
Division : Area : ISC5 Sys/Cls: K170
Equipment : ABLDG K170 Component:
Work Item : Eqt. List: Ops Review Reqd: N
Equip. Tag: Alt:
UTC : Tbl/Brkdwn: (Past 12 mo)
Catalog ID: Job Type : EA UCR: LB13
Client/Act: MIGN0237 MARK IGNERI
Location : K05 89900001 000001 7109 6TH AV, BROOKLYN, NY 11209
Cost Centr: G839 Activity : User Def:
Percentage: 100.000 Acct No. : GL

Work Order Task Instructions

ABATE ACM/PCB WIRING ON LIGHT FIXTURE INSIDE OF CLASSROOM #201.
Custodian: M. Igneri 718 680-1886
.....

BERNIE ASSIGN WORK ORDER TO JC/ERT 05/03/13 (WIRE ABATEMENT).

Completion Comments on Work Performed

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : _____