



Shaping the Future

December 5, 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. 233K
Cardno ATC Project: No. 42672.3555
Work Order No. 00518673 05

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at K233 located at 9301 Avenue B, Brooklyn, NY 11236. The inspection was performed by Mr. Diego Lopez on December 4, 2013 and it was limited to wipe samples collection and analysis within Room #305 and 465 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 Trimmvirate 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 #305 &465 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	<3
02	Room #305	Student’s Desk (x=12.01, y=20.04)	Gauze Pad w/ deionized water	0.03	<0.03
03	Room #305	Floor- hardwood (x=18.07, y=6.06)	Gauze Pad w/ deionized water	0.03	<0.03



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Sample Id. No.	Location	Type of Surface Sampled	Sample Media	Detection Limit (ug/cm ²)	Result (ug/cm ²)
04	Room #465	Desk (x=14.06, y=16.06)	Gauze Pad w/ deionized water	0.03	<0.03
05	Room #465	Floor- 12x12 light blue VFT (x=12.11, y=11.03)	Gauze Pad w/ deionized water	0.03	<0.03

CONCLUSIONS

Wipe samples obtained from desk and floor in Room #305 and 465 show PCB concentrations to be below the detection limit.

Cardino 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.

Cardino 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



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P.S. 233K
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APPENDIX A

PCB DATA AND CHAIN OF CUSTODY FORMS

ATC project #15.42672.3555
DOE Work Order # 00518673 05

PCB WIPE SAMPLING COC

PROJECT INFORMATION

1. Client: NYC-DOE	2. Project Name: R233	3a. ATC Project No.: 42672, 3555	4a. Project Manager: Dragos Balota
5. Date: 12/4/13	2a. Project Address: B-01	3b. Task No.: 0001	4b. Inspector: P. Lopez
6. Building Name:	7. Location: Room # 305, 465	8. Turnaround Time: RUSH (6 hours or less)	
9. Comment's (Field) Analyze all samples via 8082 Method.			

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	→	Gauze Pad w/ Hexane		3 ug	ND L30g
02		305	DESK	K ~ 12'6" / Y ~ 20'04"	DEION H2O	10.007	0.03	ND L0.03
03		305	Wood Floor	K ~ 15'07" / Y ~ 5'06"			0.03	ND L0.03
04		465	DESK	K ~ 14'06" / Y ~ 16'06"			0.03	ND L0.03
05		465	12x12 DFT (Light blue)	K ~ 12'11" / Y ~ 11'03"			0.03	ND L0.03
						2133830		

CHAIN OF CUSTODY

17. Relinquished By: D. Lopez	18. Date: 12/4/13	19. Time:	20. Received By: Wai S Oeung	21. Date: 12/4/13	22. Time: 1630	23. Method of Submittal: Field <input checked="" type="checkbox"/> Walk In <input type="checkbox"/> US Mail <input type="checkbox"/> Fed-Ex <input type="checkbox"/> Other <input type="checkbox"/>
II.						
III.						

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:			



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APPENDIX B

PCB ANALYTICAL RESULTS

ATC project #15.42672.3555
DOE Work Order # 00518673 05

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

REPORT NO. 2133830
PROJECT NO. 39321

PROJECT: P.S 233K -- 42672.3555
9301 Avenue B
Brooklyn NY

SAMPLED: 12/04/13
RECEIVED: 12/04/13
ANALYZED: 12/04/13
REPORTED: 12/05/13

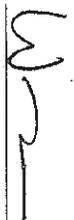
ANALYTICAL REPORT

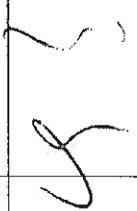
PCB WIPE
GC/ECD (EPA METHOD 8082A/3550C)

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

BATCH NO: C3087-1

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.

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9301 Avenue B
Brooklyn NY

SAMPLED: 12/04/13
RECEIVED: 12/04/13
ANALYZED: 12/04/13
REPORTED: 12/05/13

ANALYTICAL REPORT

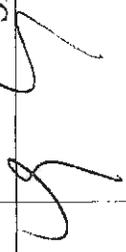
PCB WIPE
GC/ECD (EPA METHOD 8082A/3550C)

COMPOSITED SAMPLE ID: 02
MATRIX: SURFACE WIPE
SAMPLE LOCATION: Room 305 (Desk)

BATCH NO: C3087-2

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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9301 Avenue B
Brooklyn NY

SAMPLED: 12/04/13
RECEIVED: 12/04/13
ANALYZED: 12/04/13
REPORTED: 12/05/13

ANALYTICAL REPORT

PCB WIPE

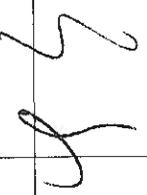
GC/ECD (EPA METHOD 8082A/3550C)

COMPOSITED SAMPLE ID: 03
MATRIX: SURFACE WIPE
SAMPLE LOCATION: Room 305 (Wood Floor)

BATCH NO: C3087-3

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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New York, NY 10011

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PROJECT NO. 39321

PROJECT: P.S 233K - 42672.3555
9301 Avenue B
Brooklyn NY

SAMPLED: 12/04/13
RECEIVED: 12/04/13
ANALYZED: 12/04/13
REPORTED: 12/05/13

ANALYTICAL REPORT

PCB WIPE

GC/ECD (EPA METHOD 8082A/3550C)

COMPOSITED SAMPLE ID: 04

BATCH NO: C3087-4

MATRIX: SURFACE WIPE

SAMPLE LOCATION: Room 465 (Desk)

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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PROJECT: P.S 233K - 42672.3555
9301 Avenue B
Brooklyn NY

SAMPLED: 12/04/13
RECEIVED: 12/04/13
ANALYZED: 12/04/13
REPORTED: 12/05/13

ANALYTICAL REPORT

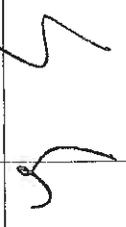
PCB WIPE

GC/ECD (EPA METHOD 8082A/3550C)

COMPOSTED SAMPLE ID: 05 **BATCH NO: C3087-5**
MATRIX: SURFACE WIPE
SAMPLE LOCATION: Room 465 (12x12 Vinyl Floor Tile, Light Blue)

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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I.S. 233K

December 5, 2013

APPENDIX C

LABOARTORY CERTIFICATIONS

NEW YORK STATE DEPARTMENT OF HEALTH
MADISON AVE 11TH FL

Expires 2:01 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 as amended until 2013

NY Lab ID NO: 11910

MR. LISSANG
NY ENVIRONMENTAL AND ANALYTICAL LABS, INC.
88 HARBOR ROAD
PORT WASHINGTON, NY 11050

Is hereby APPROVED as an Environmental Laboratory in accordance with the
National Environmental Laboratory Accreditation Conference Standards (2002) for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE

All approved parameters are listed below.

Characteristic Testing

EPA 1311

TOB

Polychlorinated Biphenyls

EPA 8082

PCB 101B

EPA 8082

PCB 1223

EPA 8082

POE 622B

EPA 8082

PCB 1242

EPA 8082

PCB 1248

EPA 8082

PCB 1254

EPA 8082

PCB 1266

EPA 8082

Statistical Interpretation Methods

EPA 3550B

Serial No. 486983

Program of the New York State Department of Health. Certificates are valid only at the address
shown here. By correspondence, please send the entire fee. Continued certification depends
on successful ongoing participation in the program. Comments regarding this certificate should be sent to the
New York State Department of Health, Office of Laboratory Services.



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I.S. 233K

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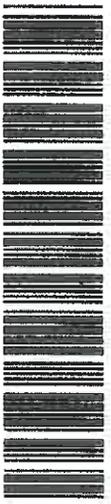
APPENDIX D

NYC DOE WORK ORDER REQUEST

ATC project #15.42672.3555
DOE Work Order # 00518673 05

13555

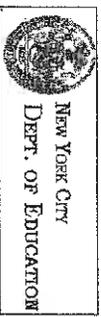
Facility: DSF DIVISION OF SCHOOL FACILITIES
 Unit : K Project :
 W/O Type: CO Priority: 04 W/O Dspln: H
 Planner : DSCANNA SCANNAPIECO
 W/O Title : 75/18K233/ "FAILED & SMOKING" T-12 B
 W/O Task Title: 75/18K233/ PERFORM AIR MONITORING
 Written To : P.S. 233 - BROOKLYN
 Task Dspln : Completed By:



Work Order Package

00518673 05

Rpt : TIPMC11
 Date: 12/04/2013



Work Order Task Written To

Facility :	DSF	Unit :	K	Op Sys :	GEO-18
Division :		Area :	ISC5	Sys/Cls :	K233
Equipment :	ABLDG K233	Component:		Ops Review Reqd:	N
Work Item :		Eqt. List:			
Equip. Tag:		Alt:			
UTC :		Tbl/Brkdw:	(Past 12 mo)		
Catalog ID:	JTOB6077	Job Type :	EA UCR: LB14		
Client/Act:			JAMES TOBIN		
Location :	K04 75300001 000001 9301 AVENUE B ., BROOKLYN, NY 11236				
Cost Cent:	G839	Activity :		User Def:	
Percentage:	100.000	Acct No. :	GL		

Work Order Task Instructions

Perform air monitoring in Classrooms #305 & #465.
 Custodian: Ed Morgan 718 922-0727

Completion Comments on Work Performed

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : _____