

October 3, 2015

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

**Re: PCB Wipe Sampling Report  
Harry Van Arsdale Voc. HS (K650)  
Cardno ATC Project: No. Z214AA-0707  
Work Order No. 00588707 03**

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at K650 located at 257 North 6<sup>th</sup> Street, Brooklyn, NY 11211. The inspection was performed by Mr. Diego Lopez on October 2, 2015 and it was limited to wipe samples collection and analysis within Room #124 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<sup>2</sup>) 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 #124 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<sup>2</sup> 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 <sup>2</sup> )	Result (ug/cm <sup>2</sup> )
01	Blank	Blank	Gauze Pad w/ hexane or reagent acetone	3	<3
02	Room #124	Desk (x=11.5, y=13.5)	Gauze Pad w/ hexane or reagent acetone	0.03	<0.03
03	Room #1245	Floor- 12x12 light brown VFT (x=11.6, y=18.7)	Gauze Pad w/ deionized water	0.03	<0.03

## CONCLUSIONS

Wipe samples obtained from desk and floor within Room #124 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**



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 BATCH NO. 43935

### PCB WIPE SAMPLING COC

#### PROJECT INFORMATION

1. Client: <b>NYC-DOE</b>		2. Project Name: <b>K650</b>		3a. ATC Project No.: <b>2214AA_0707</b>		4a. Project Manager: <b>Dragos Balota</b>	
5. Date: <b>10/2/15</b>		6. Building Name: <b>124</b>		8. Turnaround Time: <b>RUSH (6 hours or less)</b>		9. Comments (Field) Analyze all samples via 8082 Method.	
		2a. Project Address: <b>257 North 6 street</b>		3b. Task No.: 0001		4b. Inspector: <b>Diego Lopez</b>	
		7. Location: Room # <b>124</b>					

#### 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 <sup>2</sup> )	16. MDL (ug/cm <sup>2</sup> )	16A. RESULT (ug/cm <sup>2</sup> )
01			BLANK		Gauze Pad w/ Hexane		0.03	< 0.3 ug
02		124	DESK	X=11'05 Y=13'05		100cm <sup>2</sup>	0.03	< 0.03
03			FLOOR 12X12 VFT (light brown)	X=11'06 Y=18'07	DEION H <sub>2</sub> O		0.03	< 0.03

0153037  
  
 C 7 0 1 2

#### CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
<b>D. Lopez</b>	<b>10/2/15</b>		<b>Emily Brodie</b>	<b>10-2-15</b>	<b>0855p</b>	Field
II.						Walk In
III.						US Mail
						Fed-Ex
						Other

#### LABORATORY INFORMATION

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

## **APPENDIX B**

### **PCB ANALYTICAL RESULTS**

**Client:** Cardno-ATC  
 104 E 25<sup>th</sup> St.  
 New York, NY 10010

**Report No.:** 2153037  
**Project No.:** 43935

**Project:** Z214AA.0707  
 K650  
 257 North 6 Street

**Sampled:** 10/2/15  
**Received:** 10/2/15  
**Analyzed:** 10/2/15  
**Reported:** 10/5/15

**Analytical Report for  
 Total PCBs by GC/ECD**  
 EPA Method 3550C (prep) 8082A (analysis)

Composite Sample ID 01  
 Matrix: Wipe  
 Sample Location: BLANK

Lab Batch No. C7012-1

PCB ID	CAS No.	Result (µg)	MDL (µg)
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

  
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 Li Tsang  
 Laboratory Director

LT:se

The analytical results relate only to the samples tested in the condition received by the laboratory. This report must not be reproduced except in its entirety unless with the laboratory's written approval.







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 BATCH NO. 43935

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5. Date: <b>10/2/15</b>		6. Building Name:		3b. Task No.: <b>0001</b>		4b. Inspector: <b>Diego Lopez</b>	
		7. Location: Room # <b>124</b>		8. Turnaround Time: <b>RUSH (6 hours or less)</b>		9. Comments (Field) <b>Analyze all samples via 8082 Method.</b>	

#### 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 <sup>2</sup> )	16. MDL (ug/cm <sup>2</sup> )	16A. RESULT (ug/cm <sup>2</sup> )
01			Blank		Gauze Pad w/ Hexane		<del>0.03</del> 3	< 0.3 ug
02		124	DESK	X=11'05 Y=13'05		100cm <sup>2</sup>	0.03	< 0.03
03			FLOOR 12X12 VFT (light brown)	X=11'06 Y=18'07	DEION H <sub>2</sub> O		0.03	< 0.03

0153037  
  
 C 7 0 1 2

#### CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. <b>D. Lopez</b>	<b>10/2/15</b>		<b>Emily Brodie</b>	<b>10-2-15</b>	<b>0:55p</b>	Field
II.						Walk In
III.						US Mail
						Fed-Ex
						Other

#### LABORATORY INFORMATION

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

## APPENDIX C

### LABOARTORY CERTIFICATIONS

NEW YORK STATE DEPARTMENT OF HEALTH  
WADSWORTH CENTER

Expires: 12:01 AM April 01, 2015  
Issued: April 01, 2014



**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  
30 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

Speciated Heavy Metals

PCB-1016 EPA  
PCB-1221 EPA  
PCB-1252 EPA  
PCB-1242 EPA  
PCB-1248 EPA 800A  
PCB-1254 EPA 800A  
EPA-1260 EPA 800A

Sample Preparation Methods

EPA 8000



Serial No: 50669

Property of the New York State Department of Health. Certificates are valid only at the address shown. They are non-transferable and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Complaints are urged to call (518) 485-4577 or visit the laboratory's accreditation office.

## **APPENDIX D**

### **NYC DOE WORK ORDER REQUEST**

Facility: DSF DIVISION OF SCHOOL FACILITIES  
 Unit : K Project :  
 W/O Type: CO Task Pri: 04 Tsk Dspln: H  
 Planner : SNAPOLIT NAPOLITANO  
 W/O Title : 75/14K650/REMOVE & REPLACE SMOKING T  
 W/O Task Title: 75/14K650/ PREFORM PCB WIPE TEST  
 Written To : HARRY VANARSDALE VOC H (WHITNEY)-K  
 Completed By:



**Work Order Package**

**00588707 03**

Rpt : TIPMC11  
 Date: 10/02/2015



NEW YORK CITY  
 DEPT. OF EDUCATION

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**Work Order Task Written To**

Facility : DSF	Unit : K	Op Sys : GEO-14
Division : ABLDG K650	Area : ISC4	Sys/Cls: K650
Equipment : ABLDG K650	Component:	
Work Item :	Eqt. List:	Ops Review Req'd: N
Equip. Tag:	Alt:	
UTC :	Tbl/Brkdwn: (Past 12 mo)	
Catalog ID:	Job Type : ET UCR:LB16	
Client/Act: ALAC6132	ANTHONY LACHTARA	
Location : K02 33000011 000001 257 N 6TH ST, BROOKLYN, NY 11211		
Cost Centr: G839	Activity :	User Def:
Percentage: 100.000	Acct No. : GL	

**Work Order Task Instructions**

PREFORM PCB WIPE TEST IN ROOM 124  
 SMOKING T-12 BALLAST  
 Custodian JOSE CASADO 718-384-4581  
 \*\*\*\*\*  
 ASSIGNED TO ATC ON 10/2/15

**Completion Comments on Work Performed**

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : \_\_\_\_\_