March 17, 2015

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. 192M
Cardno ATC Project: No. Z214DB-6526
Work Order No. 00569156 04

Dear Mr. Orlan:

Cardno ATC was retained by NYC-DOE to perform a limited PCB wipe sampling inspection at M192 located at 00 West 138th Street, NY, NY 10031. The inspection was performed by Mr. Ricardo Vilchez on March 16, 2015 and it was limited to wipe samples collection and analysis within Room #128 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 #128 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 #128	Round Table (x=4, y=7)	Gauze Pad w/ hexane or reagent acetone	0.03	<0.03
03	Room #128	Floor- 12x12 black VFT (x=5, y=9)	Gauze Pad w/ deionized water	0.03	<0.03

CONCLUSIONS

Wipe samples obtained from table and floor within Room #128 show PCB concentrations to be below 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

M. Balota

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.

#42522

PCB WIPE SAMPLING COC

PROJECT INFORMATION

1. Client: NYC-DOE	2. Project Name: PS-192M	3a. ATC Project No.: Z214DB6526	4a. Project Manager: Dragos Balota
	2a. Project Address: 500 W 138TH ST, NY, NY 10031	3b. Task No.: 0001	4b. Inspector: Ricardo Vilchez
5. Date: 03-16-15	6. Building Name: / 7. Location: Room # 128	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 (cm²)	16. MDL (ug/cm²)	16A. RESULT (ug/cm²)
128-91		128	BLANK	—	Gauze Pad w/ Hexane	—	3ug	ND <3ug
128-92		128	ROUND TABLE TOP	X → 4' Y → 7'	GAUZE PAD W/ HEXANE	100	0.03	ND <0.03
128-93		128	12"x12", BLACK, VINYL FLOOR TILE	X → 5' Y → 9'	GAUZE PAD W/ DEION WATER	100	0.03	ND <0.03

21507227
C5843

CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal	
I. RICARDO VILCHEZ	03-16-15	1930		3-16-15	1930	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: Wai S Cheng	3/17/15	0900	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 104 E. 25th Street, 10th Floor New York, NY 10011	**Report No.:** **Project No.:**	2150722 42522
Project:	Z214DB.6526 M192 500 West 138th Street New York, NY 10031	**Sampled:** **Received:** **Analyzed:** **Reported:**	03/16/15 03/16/15 03/16/15 03/17/15

Analytical Report for
Total PCBs by GC/ECD

EPA Method 3550C (prep) 8082A (analysis)

Composite Sample ID 128-01
Matrix: WIPE
Sample Location: BLANK

Lab Batch No. C5843-1

PCB ID	CAS No.	Result (ug)	MDL (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, QA officer
Laboratory Director

LT:eb

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

NYSDOH ELAP #: 11510

NEW YORK ENVIRONMENTAL

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

Client:	Cardno ATC 104 E. 25th Street, 10th Floor New York, NY 10011	**Report No.:** **Project No.:**	2150722 42522
Project:	Z214DB.6526 M192 500 West 138th Street New York, NY 10031	**Sampled:** **Received:** **Analyzed:** **Reported:**	03/16/15 03/16/15 03/16/15 03/17/15

Analytical Report for
Total PCBs by GC/ECD

EPA Method 3550C (prep) 8082A (analysis)

Composite Sample ID	128-02	Lab Batch No.	C5843-2
Matrix:	WIPE		
Sample Location:	Room 128 (Round Table Top)		

PCB ID	CAS No.	Result (ug/cm²)	MDL (ug/cm²)
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

Nicole Cheung
Chemist

Li Tsang
Laboratory Director

LT:eb

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Project:	Z214DB.6526 M192 500 West 138th Street New York, NY 10031	**Sampled:** **Received:** **Analyzed:** **Reported:**	03/16/15 03/16/15 03/16/15 03/17/15

Analytical Report for
Total PCBs by GC/ECD

EPA Method 3550C (prep) 8082A (analysis)

Composite Sample ID 128-03 Lab Batch No. C5843-3
Matrix: WIPE
Sample Location: Room 128 (12x12 Black Vinyl Floor Tile)

PCB ID	CAS No.	Result (ug/cm²)	MDL (ug/cm²)
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

Nicole Cheung
Chemist

Li Tsang, QA Officer
Laboratory Director

LT:eb

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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, 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
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 [illegible]
PCB-1221	EPA [illegible]
PCB-1232	EPA [illegible]
PCB-1242	EPA [illegible]
PCB-1248	EPA 8082A
PCB-1254	EPA 8082A
PCB-1260	EPA 8082A

Sample Preparation Methods

EPA 3550C

Serial No.: 50669

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 Task Pri: 04 Tsk Dspln: H
Planner : JDIFFLE DIFFLEY
W/O Title : 75/06M192/SMOKING BALLAST/
W/O Task Title: 75/06M192/SMOKING BALLAST/WIPE TEST/
Written To : P.S. 192 - MANHATTAN
Completed By:

6526

Work Order Package

00569156 04

Rpt : TIPMC11
Date: 03/16/2015

NEW YORK CITY DEPT. OF EDUCATION

Work Order Task Written To

Facility : DSF
Division :
Equipment : ABLDG M192
Work Item :
Equip. Tag:
UTC :
Catalog ID:
Client/Act: CTHO5855
Location : M01 98800200 000001 500 W 138 ST, MANHATTAN, NY 10031
Cost Centr: G839
Percentage: 100.000

Unit : M
Area : ISC3
Component:
Eqt. List:
Alt:
Tbl/Brkdwn: (Past 12 mo)
Job Type : ET UCR: LB15
CLARENCE THOMAS
Activity :
Acct No. : GL

Op Sys : GEO-06
Sys/Cls: M192
Ops Review Reqd: N
User Def:

Work Order Task Instructions

WIPE TEST IN ROOM 128.
`` ` ` ` ` `
PCB WIPES BY ATC 03/16/15.

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 *****