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Testimony of Kathleen Grimm
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PCBs
Committees on Education, Environmental Protection
and Oversight and Investigations

April 29, 2008

Introduction

Good afternoon Chair Jackson, Chair Gennaro and Chair Gioia and members of the committees on Education, Environmental Protection and Oversight and Investigations. My name is Kathleen Grimm, Deputy Chancellor for Finance and Administration at the New York City Department of Education. I am joined by Sharon Greenberger, President of the School Construction Authority (SCA) as well as my staff from the Division of School Facilities (DSF), who are on hand to help answer questions. I want to thank the Council for the opportunity for us all to have a discussion on the topic of polychlorinated biphenyls, more commonly referred to as PCBs.

It is a very good thing for us all to be together here today in this public forum. As Dr. Leighton of the Health Department has testified, the evidence indicates that there is not a significant heath risk in our schools from PCBs. That is a very important message for us all to get across to our parents, our teachers, and all members of our school communities. We hope that this hearing helps us all do that. We are delighted to be before you today with our colleagues from Health and the EPA so that you know we are working together to make sure that we have a coordinated and comprehensive approach in this situation. Representatives of the

Health Department not only evaluate the health risks for us, but also attend meetings with parents and school communities to help inform them. My office has a regular liaison with the regional EPA office. I understand that you will also hear today from Randi Weingarten of the UFT; we have been working closely with her staff as we do on all environmental matters. I hope that you come to appreciate the team effort we have here to make sure that our schools are safe.

I want to assure all of our commitment to a safe and healthful environment for our children and our teachers. Safety is absolutely paramount, and we are sensitive to the concerns that parents have raised and we are taking them very seriously.

PCB levels in indoor air and dust can vary a great deal, depending on specific building or room conditions, but studies show that PCB-containing building materials are not a significant source of PCB exposure. When the PCB-containing caulk is disturbed, or deteriorates with age, it produces dust that may contain PCBs. If not properly managed, this dust can be inhaled or ingested through normal hand-to-mouth contact, particularly by young children, as DOH has explained.

Safety Protocols

We have protocols in place to ensure that our students are learning in classrooms where the air is safe to breathe, and we have taken several steps to minimize the exposure of PCBs to our students and staff.

The New York State Education Department (SED) has published protocols for addressing PCBs in caulking material in school buildings. This protocol has been developed in consultation with the New York Department of Health, Division of Environmental Health Assessment, Bureau of Toxic Substance Assessment to address concerns about properly managing caulk containing PCBs that will be disturbed during building renovation and maintenance.

First, SCA applies the new SED protocol to all school buildings built prior to 1985, thereby casting a wider net than we are required to. Second, the SCA assumes that all caulks present in these buildings contain PCBs – also going above and beyond what the State protocol calls for. Third, SCA utilizes the same dust control measures for PCBs as is used for lead dust control. The protocols require rigorous dust control measures during the work, followed by cleaning and inspection by the contractor at the conclusion of every work shift. Fourth, all repairs that disturb

caulk, such as window removal and replacement, are conducted by trained workers who use safe work practices to minimize dust and contain contaminated wastes. Lastly, after completion of renovation or demolition that involves the disturbance of caulks, an inspection is performed by a qualified environmental professional to determine soil sampling requirements based on SED guidelines.

Where We Are Today

To assess the risk of exposure in the nine (9) school buildings where potential hazards were alleged, the SCA and its independent environmental consultants tested for the presence of PCBs in the air and dust. Over 250 air and dust wipe samples were collected. In the air tests, the PCB levels were non-detectable (meaning that they were so low that the testing equipment could not find PCBs) in every sample except for one. That sample was slightly above the lowest concentration that the test could detect and well below the DOH guideline for air samples. The dust wipe samples were either non-detectable or far below the federal thresholds, with one exception. One of the dust wipe samples was scarcely above the level that the United States Environmental Protection Agency (USEPA) uses for clearance after a cleanup. As we informed the local elected officials, because of a delay in implementing State guidelines, we did not test the building waste materials at PS 199M

before they were removed. However, all dust protocols were in place during construction.

These findings represent negligible amounts of PCBs and do not present a danger or significant health risk to the school community. As the Commissioner of the New York City Department of Health and Mental Hygiene (DOHMH) stated in his April 11, 2008, letter to the editor of the New York Daily News, "The trace amounts detected in the New York City schools don't approach the concentrations that kids ingest daily in their food. **Even at the highest level measured, a child would have to spend months in a school building to get the exposure found in a single piece of meat or fish.**"

The most important observation that can be made from these test results is that PCB levels were either undetectable or insignificant in practically every case. These findings have been discussed with DOHMH staff, who have reviewed the data, and have not indicated a need to perform additional sampling.

Regarding the soils, SCA retained qualified environmental professionals to assess the condition of exterior caulk and soils at eight schools. Based upon the assessments, soil screening samples

were collected from eight schools and analyzed for PCBs. Of these schools, four had PCB concentrations above the US EPA standard of 1 part per million (ppm), the other four did not. Additional samples have been collected at these 4 schools to verify the potential presence of PCBs and determine the extent of impacted soils. We will utilize this information to develop a plan of action for the impacted soils that will be shared with regulatory agencies, including the USEPA, DOHMH, and New York State Department of Environmental Conservation (NYSDEC) for their review and approval.

In addition to the protocols that the SCA follows, we issued a circular to all building custodians providing them with guidance. This circular requires that all Custodian Engineers and Building Managers are to include window sills, exterior ledges, exterior door frames, as well as grade level areas near caulked structures specifically during their routine daily inspections. Furthermore, all Custodian Engineers and Building Managers are now required to perform monthly inspections of all exterior window sills and ledges, exterior door frames as well as all grade elevations in proximity of caulked structures to determine if there is any presence of disturbed or deteriorated caulking materials. All monthly inspection results must be documented, and completed

inspection forms are to be kept on file in the Custodian Engineer's/Building Manager's office.

Conclusion

As we all know, the disturbance of existing building materials without following proper abatement procedures and in accordance with applicable federal, State and City rules and regulations, may pose health or physical hazards to those utilizing the school buildings. We have Standard Operating Procedures (SOPs) in place in order to ensure our commitment to providing a safe and healthy environment and compliance with all applicable rules and regulations whenever these building materials are disturbed. These SOPs are designed to avoid any improper removal or disturbance of potentially hazardous substances like PCBs, and they are to be followed by any individual who performs any work in a NYC school building that will impact in any way any of the existing building materials.

As the Department of Health testified, PCBs are prevalent in our society. In our school buildings (as well as apartment buildings and others) that were constructed or renovated between the 1950s through the 1970s, it is quite likely that PCBs were used in the caulking. Its use has since been banned, and the Department goes

to great lengths to ensure that potential contaminants that are released due to renovations in our school buildings are safely and appropriately cleaned up.

We have been working collaboratively with the EPA, DEC, DOHMH, and the UFT, and we will take all steps necessary to address short- and long-term approaches to dealing with PCBs. For certain, we need a coordinated response from all agencies at every level of government.

Thank you for the opportunity to discuss our efforts to ensure a healthy and safe learning environment for our students and teachers.

Testimony
of
Randi Weingarten
President
United Federation of Teachers
to the

New York City Council
Committees on Environmental Protection, Investigations
and Education

Joint Hearing on Environmental Protection

April 29, 2008
1 p.m.

Good afternoon. I am Randi Weingarten, president of the United Federation of Teachers. My union represents some 120,000 educators working in more than 1,400 school sites attended by 1.1 million students. We also represent 28,000 home child-care providers. Thank you for the opportunity to testify on the presence and the risks of polychlorinated biphenyls (PCBs) in the schools.

The UFT is concerned about any health and safety condition affecting students and staff, and we take the threat posed by PCBs in schools seriously. Even before the *Daily News* broke the story early this month about finding PCBs in caulking at eight of the nine schools it randomly surveyed, we had already reached out to various agencies, including the federal Environmental Protection Agency and the New York City Department of Health and Mental Hygiene for guidance regarding PCBs in exterior caulk and other building materials. We also contacted Mount Sinai's Center for Occupational and Environmental Medicine and Hunter College's Department of Environmental and Occupational Health.

As soon as we learned about the *Daily News* test results showing elevated levels of PCBs in exterior caulk, which is used to seal joints around windows, exterior doors and between masonry units, we immediately urged the city Department of Education to have independent consultants conduct environmental assessments at these schools. We also contacted other city, state and federal agencies, seeking guidance in assessing the safety of the school environments. In addition we have been working with the DOE, the School Construction Authority (SCA) and the Department of Health and Mental Hygiene to immediately implement more stringent dust controls and improved clean-up and housekeeping procedures for those schools with current exterior masonry/window removal and replacement projects.

The prudent course of action is to eliminate exposure to PCBs. A caution in taking that action is that school communities must not be endangered or disrupted through a hasty assessment and removal of PCB building materials. Both the potential for excessive alarm and the real need to manage PCBs have to be addressed. What is needed, then, is a coordinated and programmatic response from federal, state and local agencies so that school systems can implement a proactive inspection, monitoring, removal and replacement program to address PCB building materials.

We know this Council shares the UFT's concerns about any school health risks. But because so little is known about the health effects of low-level exposure to PCBs, we feel the prudent course of action is to ensure minimal risk of exposure to PCBs both indoors and outdoors. When it comes to the potential for toxic conditions in the schools, it is better to be safe than sorry. So we recommend the city put the following seven steps and procedures into play

- **1-Immediately implement more stringent dust controls and improved clean-up and housekeeping procedures** for those schools with current exterior masonry/window removal and replacement projects.

- **2-Follow published best practices for the removal of exterior caulking that is assumed to contain PCBs.** Best practices for the maintenance and removal of caulking include using tools with vacuum attachments and covering exposed soil with protective coverings.

- **3-Include the removal of PCB caulk and other PCB building materials as part of the Capital Plan.** The city budget should include any available federal, state or city funding to pay for the removal of PCB caulk and other PCB building materials where necessary once the scope and cost of such a project can be determined.

- **4-Conduct a survey of the condition of caulking in schools constructed or renovated prior to 1980.** Determining the scope of the problem is the first step in deciding how to address this citywide, and a survey would help assess the need for corrective action.

- **5-Develop and implement procedures for managing caulk that is in good condition. These procedures must include preventing the disturbance of such caulk and the release of contaminants.**

- **6-Create a city DOE Division of School Facilities/School Construction Authority response and assessment unit** that can immediately investigate reports of damaged PCB caulk in schools and quickly cleanup possible contamination.

- 7-Because very little is known about the health risks and effects from these types of exposures to PCBs, we asked that the U.S. EPA, the National Institute for Occupational Safety and Health and other appropriate agencies move quickly to begin such exposure and health-risk assessment research.

Numerous UFT members have asked about potential PCB harm to themselves or to their fetuses. Two researchers recommend that we advise pregnant women or women of child-bearing age to have tests to determine PCB serum levels. But that advice is problematic unless we can also assist our members in interpreting the test results. For instance, should tested women be urged to transfer from a building if tests show the women with detectable serum levels of PCB?

In the absence of research evidence, we cannot give our members assurance that PCB exposure will or will not pose a risk to them or to their fetuses. The UFT submitted a Health Hazard Evaluation request to the National Institute for Occupational Safety and Health asking that it assess both the indoor PCB exposures in schools and the potential health risks to pregnant women and women of child-bearing age so that the city DOE and the UFT can develop reasonable guidance for all employees.

The right way is for state and federal agencies—particularly the National Institute on Occupational Safety and Health—to work with the DOE, the School Construction Authority, the city's Department of Health and Mental Hygiene and the UFT to do the kind of cooperative investigation that will effectively assess, manage and eliminate any risks presented by PCB building materials in our schools. That way we can assure parents, students and staff members that New York City public schools are safe places for students to learn and for educators to teach.

Thank you.

Testimony of Daniel Lefkowitz DPM

PCBs in Schools

April 29, 2008

I am Dr. Daniel Lefkowitz, a retired podiatrist and a resident of Yorktown Heights in Westchester, New York. I am head of the Westchester County Task Force on PCBs, creator of the website pcbinschools.org, and the parent who in the fall of 2004 discovered PCB-contaminated caulk and soil at my son's school - The French Hill Elementary School in Yorktown Heights.

My involvement with PCB contamination in schools started in the fall of 2004 when I read a Harvard study by Dr. Bob Herrick entitled "An Unrecognized Source of PCB Contamination in Schools and Other Buildings."

Wondering if my son's elementary school, The French Hill Elementary School in Yorktown Heights had PCB contaminated caulk, I contacted the EPA and based on their suggestion, looked for a piece of caulking on the ground. I found a piece of caulk and tested it. The result was 38,000 ppm of PCBs. Upon receipt of my result the Westchester County Health Department ordered the school to remove all caulking from the school ground.

I then made a request to the County Health Department to go to the French Hill School and test the soil and indoor environment for contamination. They refused my request. I then proceeded to do my own soil sampling. With a soil result yielding 280 ppm of PCBs, and confirmation of soil contamination by the Westchester County Health Department, the Yorktown Central School District was ordered by the state to remove 1130 tons or 591 cubic yards of contaminated soil. The contaminated soil was abated 10 feet away from the entire perimeter of the school building, except for one section that was 40 feet from the school building

The cleanup received media attention.

Let me read the following from the July 4, 2005 New York Times article **"Tainted Soil to Be Removed Next to Westchester School:**

> In what state health officials call the first cleanup of its kind in the state, a school district in Westchester County is planning to remove soil next to an elementary school in Yorktown Heights because the soil is contaminated by PCB's from caulking in the school's windows.
>
> A spokesman for the State Department of Health said the cleanup was the first the agency was aware of involving PCB contamination from caulk.

After the soil remediation, the school district performed post-remediation PCB wipe testing of the exterior of the building that resulted in decontamination of the exterior doors and windows. Even though PCBs were found on indoor wipe sampling, the levels were below the EPA standard. No air samples were taken.

I need to point out that many Yorktown parents knew nothing about the exterior window and door contamination, and that the school district did not install one warning sign or fencing to keep the children away from the exterior of the building. In addition, the Yorktown Central School District had violated EPA disposal regulations when they sent all 1130 tons of contaminated soil to a disposal facility in Pennsylvania unauthorized to accept the soil.

Please make sure that the contaminated soil found at the city schools are sent to an authorized disposal facility.

Now that the soil was remediated and the exterior for the building decontaminated, what was the Yorktown School District going to do about the PCB-laden caulk on the building? Since the caulking had such high levels of PCBs, the school district decided to limit the children's exposure to the PCBs by encapsulating some of the caulking with new caulking and paint. There was only one problem with this. What they were doing was illegal under federal law. PCB-contaminated caulk has to be removed, and cannot be encapsulated.

For a very long period of time, the EPA negotiated with the school district about the caulking. The school district took the position that there were no regulations requiring them to remove the caulk, and was unfairly being targeted by the EPA. In 2007, the Yorktown School District asked Senator Schumer to intercede on their behalf.

On July 26, 2007, the EPA responded to Senator Schumer.

Let me read this portion of the EPA letter to Senator Schumer.

> "In this case our response (EPA) has been primarily focused on reducing or eliminating the potential health risks to the childen and personnel of FrenchHill as a result of the presence of PCBs. The presence of PCBs in schools is of particular concern because PCBs are considered developmental toxins.
>
> The continued presence or use of caulk, which at French Hill is contaminated with PCBs as high as 60,000 parts per million, is prohibited by the Toxic Substance Control Act (TSCA) and the Agency's PCB regulations at 40 CFR section 761.20(a), except to the extent authorized by EPA rule. The use of PCBs in caulk is not an authorized use and thus is a violation of section 6 (e) of TSCA."
>
> "When EPA has become aware of PCB-contaminated materials in other school buildings, the subsequent discussions with those schools have resulted in the reduction of PCB-contaminated substances from the building or structure in accordance with the federal PCB regulations, including the removal of PCB-containing caulking and paint from window frames and the reduction of PCBs in contaminated porous masonry material."

I would like to read a section of the November 3, 2005 letter from EPA Region 2 adddressed to the Westchester Counry Board of Legislators

> "The use of PCBs in caulking and sealant materials has never been authorized by the Environmental Protection Agency. In general, the placement of such materials pre-dates the enactment of the Toxic Substance Control Act, and its use today is not authorized. Therefore, the prospect of authorizing the continued use of this material in residential settings, or where children could be exposed is extremely unlikely. Because it is illegal and the potential for exposure maybe significant, PCB-containing caulk must be removed upon discovery."

What was the end result? Over the 2007 summer vacation - approximately three years since the discovery of contaminated caulking, the Yorktown School District removed the contaminated caulking from the building, including 180 liner feet of contaminated sidewalk caulking. In addition, the EPA stated that they were going to address the issue of PCBs in caulk with a Q and A. We are still awaiting their Q and A.

On October 4, 2007, the Yorktown School Board hired the law firm of Kennedy & Madonna LLP to sue Monsanto and other defendants to recoup costs for PCB remediation.

What happened at Yorktown, was a tip of the iceberg.

After I discovered the contamination in 2004, I knew that there had to be many other schools at risk for PCB contamination. Without mandated testing, we as a nation are failing to protect our children.

In order to bring national attention, and to educate the public and government officials about this issue. I created a website called pcbinschools.org. In addition, I, with Mr. George Weymouth surveyed a number of schools for PCB-laden caulk, including the Bronx schools listed in the New York Daily News.

My website, pcbinschools.org, has photos of schools with contaminated caulking, caulk and soil sampling reports, documentation from the EPA and the NYS Education Department, research studies, media reports, blood study analysis, in addition to information pertaining to the Yorktown PCB lawsuit against Monsanto.

If you look at my website, you will see a list of schools, buildings and structures that contain PCB-contaminated caulk and/or soil.

PS 199, PS 30, PS 181, PS 178, PS 160, PS 153, PS 131 and PS 86, French Hill Elementary in Yorktown, Benjamin Franklin Elementary in Shrub Oak, University of Rhode Island, UMass in Amherst, East Ramapo Central Schools in Rockland, Putnam Valley Middle School, SUNY Oswego, Catholic High School in Massachusetts, Burlington High School in Massachusetts. Mount Sinai Hospital, Denver Water Basin, Co-Op City in the Bronx and so on.

If you look for PCBs in schools, you will find it. Since there are no laws mandating testing for PCBs, the NYC Department of Education, NYS Education Department, local school boards will not look for it. Why should they? Who wants to pay for remediation, and burden taxpayers with higher school taxes? Why risk lawsuits from parents or teachers? Forget about the exposure risks to children, teachers of child-bearing years, and the custodians.

To school boards, administrators, education officials responsible for a safe and healthy school environment, ignorance is bliss!

And what about our political leaders? When asked about introducing legislation to mandate testing in the senate, my state senator summed it up very nicely by saying

> "A bill for mandated testing will never pass the state senate. It is another unfunded mandate."

While there are laws and regulations pertaining to the use and disposal of PCBs, there are no federal, state, county or city laws or regulations requiring schools to test for it. That has to change right now!!

In 2007, the New York State Education Department, released protocols to address concerns about properly managing caulk containing PCBs that will be disturbed during building renovation and maintenance. Even though this is a good first step, it is very important to

remember that the State Education Department protocols are guidelines and recommendations. There is no mandated testing.

Even though caulking is a major source of PCBs, there is nothing in the State Education protocols pertaining to other important sources of PCBs such as ceiling and floor tile, paint, gaskets, foamboard, and materials in ventilation systems

And what about small maintenance jobs by custodians or contractors involving disturbance of caulking. Do you actually think a school district is going to test for PCBs? Absolutely not! A custodian or contractor will perform the repair work whether it is a window, door, expansion joint, floor tile, and that will be it.

To further highlight this, two weeks ago I had to remind my school district, the Yorktown School District about sampling the exterior door caulking and door paint for PCBs prior to an exterior door renovation project. I was watching them. But what about the hundreds of other school districts throughout the state where no one is watching?

Joint caulking or sealants are important diffuse sources of PCBs, representing a potential hazard for human health and the environment. PCBs can volatize or migrate out of caulking and contaminate the indoor air, soil around buildings, the outdoor environment and adjacent masonry.

Let us look at the French Hill Elementary School where caulk sampling from a column at the front entrance yielded levels of 60,000 ppm on bulk sampling and levels of 22,700 ug/100cm2 on wipe sampling. 60,000 ppm means that 6% of the caulking is PCBs. The number 22,700 ug/100cm2 is extraordinary when you consider that the EPA standard is 10ug/cm2. The wipe sample clearly demonstrates that PCBs were migrating or leaching out of this caulk; thus exposing children to this toxic material via dermal contact.

As you can see from the photos of the column caulking, children were writing on and coming in contact with toxic material. Even if one were to use a factor of 1% to adjust for the use of Hexane as a solvent in the wipe samples, we are still looking at a wipe sample of 227 ug/100cm2 - twenty two times the legal cleanup standard.

I ask you this: "Would you allow your own child to rub his or her hands or write with chalk on contaminated caulking? Would you allow your child to pick at contaminated caulking with his or her fingernails? The Yorktown Central School District did.

Here is a photo of children playing right next to contaminated expansion joint caulk at the Ben Franklin Elementary School in Shrub Oak, N.Y.

Can undisturbed caulking raise serum blood levels of PCBs? Yes!

Investigations since the early 1990s have provided evidence that occupancy of buildings containing PCB-rich construction materials can result in elevated serum PCB levels of lower congeners. A number of studies in Europe have demonstrated a relationship between increased serum blood levels of lower chlorinated congeners in students and teachers attending schools containing PCB-laden caulk.

Can intact PCB-containing caulk and other materials increase indoor levels of PCBs?

The answer is yes. Just look at the Chafee Building at University of Rhode Island where PCBs were detected in dust samples that exceeded allowable state limits. PCB levels exceeding the allowable limit of 50 ppm set by the US EPA were found in caulking material (caulking contained PCB concentrations up to 33,000 ppm), foamboard insulation, gasket material around windows and components of the building ventilation system. The indoor contamination was a result of PCBs being released from undisturbed PCB-containing materials.

The EPA mandated abatement involved removal of PCB-containing material, including masonry that was contaminated from the window caulking, and cleaning of the building. Compliance with the abatement plan required removal of porous masonry material because PCBs had permeated up to two inches beyond the surface. The cost for the abatement was $3.8 million.

If the sources of contamination were removed at Rhode Island, is the New York City Department of Health going to determine the source of contamination in room 179 at PS 153?

Children have different susceptibility to the health effects of PCBs compared with adults. In its toxicologic review, the Agency for Toxic Substances and Disease Registry (ATSDR) (2000) concluded that

> Younger children may be particularly vulnerable to PCBs because, compared to adults, they are growing more rapidly and generally have lower and distinct profiles of biotransformation enzymes, as well as much smaller fat deposits for sequestering the lipophile of PCBs.

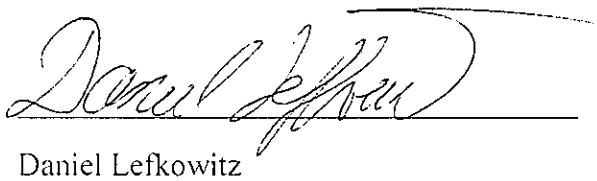
Since children are different than adults, why do we continue to apply PCB regulatory action levels meant to protect adult males and use those standards for children?

Even though we get PCBs mainly through food, we should not dismiss the potential of the indirect contribution of PCBs in air to total human exposure. According to the World Health Organization, it is important to control known sources as well as to identify new sources

With what we know about PCBs volatizing and migrating out of intact undisturbed caulking and other construction materials; the exposure risk to children through dermal contact; the raising of PCB serum blood levels though inhalation, the evidence of indoor and outdoor contamination, and the lack of oversight during construction projects, I ask, "Why would we still allow PCBs, a known toxin, to remain in our school buildings?

We need federal legislation that will mandate testing for PCBs in all schools and provide funding for remediation.

Thank you for allowing me to speak.



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PCB talking points, 4/29/2008

Polychlorinated biphenyls (PCBs) are organic chemicals that have been associated with a wide range of adverse health effects. They are known to cause cancer in animals, and PCBs are currently classified as probable human carcinogens. PCBs are also toxic to the immune, reproductive, nervous, and endocrine systems. There is a growing body of evidence that they can be potent developmental toxins in humans and animals.

PCBs were banned in 1977, but they are still present in building materials such as the caulking that seals joints between masonry blocks and around window frames. Buildings that were constructed or refurbished prior to 1977 may still contain caulking with elevated levels of PCBs. Recent studies have shown that PCBs in caulking and sealants can be released to the environment. They can contaminate the soil around buildings, as well as the air and dust inside these buildings. In some cases this is probably because they are naturally deteriorating (some of this material is almost 50 years old). In other cases, PCBs are released when workers grind and scrape out old caulking when they replace windows and other building components.

Studies in Germany and Sweden showed that people who lived, worked or went to school in PCB-contaminated buildings had higher PCB levels in their blood than did the general population. Our research has shown that construction workers who are removing old PCB caulk have higher blood levels of PCBs from caulk compared to the general population.

In several European counties including Switzerland, Finland and Sweden, there have been national surveys to identify PCB-containing buildings, and to remove contaminated materials. These surveys typically find that one-third to one-half of the masonry buildings constructed between 1960 and 1980 contain caulking with high PCB levels. Our studies in Boston confirmed this.

There is growing awareness among the regulatory agencies in the US that buildings may contain PCBs from this source. Recently, buildings at the University of Rhode Island, University of Massachusetts, New Bedford High School, and MIT were found to be contaminated with PCBs, and the PCBs were removed in accordance with EPA-approved plans.

In 2004 we recommended that a national survey be done in the US to see how common it is to find PCBs in building materials. This survey should also assess the degree to which these PCB are contaminating the building interiors, and the soil around these buildings. This information would provide the basis for a rational risk assessment that could guide decisions about addressing this situation. As federal researchers have concluded that younger children may be particularly vulnerable to PCBs compared to adults, schools should be the first priority in these investigations.

THE CITY OF NEW YORK

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

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Mayor

Thomas R. Frieden, M.D., M.P.H.
Commissioner

nyc.gov/health

Testimony
Of

Jessica Leighton, PhD, M.P.H.
Deputy Commissioner for Environmental Health
New York City Department of Health and Mental Hygiene

before the

New York City Council Committees on Education, Environmental Protection, and Oversight & Investigations

Regarding

PCBs in School

April 29, 2008

City Hall
New York, NY

Good afternoon Chairpersons Jackson, Gennaro, Gioia and members of the Committees on Education, Environmental Protection and Oversight & Investigations. I am Jessica Leighton, Deputy Commissioner for Environmental Health at the Department of Health and Mental Hygiene (DOHMH). I am an epidemiologist and have been with the Health Department for more than 19 years. I want to thank you for the opportunity to comment on the recent attention given to the presence of polychlorinated biphenyls (PCBs) in building materials identified in certain New York City schools.

We are all concerned about potential exposures and health risks from contaminants in our environment. Part of the Health Department's responsibility in promoting and protecting health is to effectively communicate with the public regarding health risks that may exist in the environment. I hope that my testimony today will help you to better understand the issue of PCBs in the environment.

I will begin with an overview of PCBs and their uses, the presence of PCBs in the environment and the health effects associated with exposure to PCBs, and then discuss what we know about exposure and health risks associated with PCBs found in window caulk. My colleagues from the Department of Education will address specifics pertaining to the testing, policies and protocols in the schools.

PCB Overview

PCBs are manmade chemicals that were widely produced and distributed across the country from the 1950's to 1977 until the production of PCBs was banned by the US EPA law which became effective in 1978. PCBs are a class of chemicals made up of more than 200 different compounds. PCBs are non-flammable, stable, and good insulators so they were widely used in a variety of products including: electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCBs are not very soluble in water and they do not break down easily in the environment. PCBs also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCBs have not been produced or used in the country for more than 30 years, they are still present in the environment – in the air, soil, and water and in our food.

What we know about exposures and health effects

PCBs are likely to be found in the caulking and other building materials of a large proportion of homes, schools, hospitals and office buildings built or renovated before 1978. In NYC, more than 225,000 residential, commercial, industrial and institutional buildings were constructed between 1940 and 1980 and potentially contain PCBs in caulk or other building materials. So it's not surprising that PCBs were identified in the caulk in some NYC schools built before 1978.

PCBs have been widely studied in the environment, in the workplace, and in laboratory animals. People can be exposed to PCBs by touching PCBs, breathing in contaminated

air, or eating contaminated food. The most serious exposures and health risks are among workers who were exposed during PCB manufacturing and during cleanups of PCB spills and fires. Some communities have also been exposed to PCBs from large scale environmental releases. The general public is mostly exposed to PCBs in the food we eat – especially fish, meat and dairy products. While PCBs are widespread in the environment, potential exposures from building caulking or other building materials are considered to be very small when compared to everyday dietary exposures.

We must keep in mind, however, that there are gaps in our knowledge. For example, although we know that PCBs are persistent in our industrialized environment from past use, we do not have information on the levels of PCBs in our current environment. Thus, baseline or background levels are not available to help us assess what may be above this background when we test schools or other buildings. It's important to remember, however, just because PCBs are found it does not mean we are in danger.

Most of us probably have some PCBs in our bodies, but few of us suffer any health consequences as a result. However, high levels of exposure to PCBs can be dangerous. Skin conditions, such as acne and rashes, can occur after exposure to large amounts of PCBs in the workplace. PCBs cause some types of cancer in laboratory animals and high levels of exposure may cause cancer in people. In addition, studies of pregnant women and their children suggest a link between high levels of PCBs in a mother's body during pregnancy and some effect on her child's birth weight, short-term memory and learning. Our knowledge about these health effects come from studies of laboratory animals, occupational studies of exposed workers, and dietary studies of people who have consumed large quantities of PCB-contaminated fish. There is a growing body of research showing that human exposures to PCBs from building materials are quite small and studies have not found health effects from such exposures.

Since the EPA ban, PCB levels in humans have greatly decreased. The National Health and Nutrition Examination Survey measured PCB levels in human blood and found that levels are low in children and increase with age. This is because PCBs are persistent in the body and exposures were higher in years past. While laboratory tests can measure PCB levels in blood, fat tissue and breast milk, these tests are not commonly available and cannot determine where, when or for how long a person was exposed to PCBs. Nor can these tests pinpoint an acute or recent exposure or tell whether the person will develop adverse health effects.

PCBs in Window Caulk

PCBs were used in some caulking and other building materials, particularly from 1950 to 1977. When contaminated caulk is disturbed, or deteriorates with age, it produces dust that may contain PCBs. This dust can be inhaled or ingested through normal hand-to-mouth contact, particularly by young children. The concentrations found in indoor dust and air can vary depending on the type of caulking and the conditions in the room, but they are unlikely to reach levels that would pose health risks. No scientific studies have linked exposures from building caulk with health effects in building occupants.

When PCB-containing caulk is removed and disposed of, it can contaminate surrounding surfaces. Necessary repairs that disturb caulk, such as window removal and replacement, should be conducted by trained workers who use safe work practices to minimize dust and contain contaminated waste. Once the window replacements have been completed, the area should be thoroughly cleaned using recommended methods. Protocols, such as those published by the New York State Education Department, offer guidance on testing of caulk and soil, and provide abatement methods based on lead-based paint hazard controls.

There have been a few detectable levels of PCBs found in the schools. There are also detectable levels of PCBs found in our food. We can do comparisons of these levels. For example, if children were to absorb the trace amounts of the PCBs found in the lunchroom air at one school to the amount they get in food, they would have to sit in the lunchroom for a month to get the amount of PCBs from eating one hamburger.

Environmental Testing for PCBs

Environmental sampling is a complex undertaking that requires careful planning and interpretation. Interpreting PCB levels from environmental testing is complicated by the multiple chemicals involved, the lack of background levels in the environment and the lack of regulatory exposure limits. Several different types of tests are available to determine PCB levels in the environment. Bulk sampling of materials, such as caulk, can provide information on the presence of PCBs in tested materials but does not provide information on the potential for human exposure. Sampling of the air, surfaces, and soil are methods that can help determine potential human exposure through inhalation, ingestion and skin contact. Thus, the School Construction Authority collected air, surface dust and soil samples in several schools. Although there are no regulatory or recommended daily PCB exposure limits for the general population, the results of the air samples taken by the SCA were all within published Federal and State guidelines that have been used to determine reoccupancy after PCB cleanups. In fact, the Department of Education's protocols for dealing with PCBs far surpasses the state guidelines. Surface dust wipe samples can indicate potential ingestion and dermal exposures. Results of these samples, with few exceptions, were all within the EPA decontamination standard for residential and commercial use. Soil samples for PCBs indicated some elevated levels in some areas adjacent to school buildings. These areas have been isolated until further evaluation and remediation.

In closing, we do not believe there is a significant health risk associated with the presence of PCBs in window caulk as long as it remains intact. However, to ensure that children and staff are protected from potential exposures, we will continue to work with city, state, and federal partners, as well as with the school community and elected officials to minimize any risks.

Thank you again for the opportunity to testify.

Testimony of George Pavlou
Deputy Regional Administrator Designee
U.S. Environmental Protection Agency, Region 2
Before the Council of the City of New York
Committee on Environmental Protection, Committee on Investigations
and
Committee on Education

April 29, 2008

Good afternoon. I am George Pavlou, Deputy Regional Administrator Designee for EPA Region 2. Thank you for the invitation to appear here today to discuss the issue of polychlorinated biphenyls (PCBs) in caulk, and the actions we are taking to address PCBs in caulk in school buildings.

We suspect many city schools have caulk that contains PCBs, and it is important that we take steps to ensure our children area being protected. Over the past 30 years, EPA has used a range of approaches to protect the public from exposure to PCBs from many sources. EPA Region 2 has primary responsibility for ensuring the proper use and management of PCBs in New York State. One important focus for EPA is to reduce or eliminate the potential health risks posed by PCB caulk to children and school personnel.

PCBs were widely used in hundreds of industrial and commercial applications from the 1940s until 1979, when they were largely banned in the United States due to concerns about health and environmental effects. PCBs were used in caulk in some buildings, including schools, during the 1950s through the 1970s. This caulk is most commonly found around windows, doors and in masonry expansion joints. PCBs

make the caulk flexible. Based on the information we have, caulk may have been formulated with PCBs at concentrations up to 30% by weight, or 300,000 parts per million (ppm). The Agency does not have information about what proportion of the total "caulk market" was PCB caulk, nor do we have information about whether the PCB caulk was used for a specific "niche market" within all possible caulk applications. Buildings built after 1980 are much less likely to have PCB caulk.

Unless specifically authorized in the PCB regulations, the Toxic Substances Control Act prohibits uses of PCBs that are not totally enclosed. While current federal PCB regulations allow certain PCB-containing products to remain in place if PCB concentrations are less than 50 parts per million (50 ppm), and specifically authorize some uses of PCBs at concentrations above 50 ppm, caulk containing PCBs at 50 ppm or higher is not an authorized use under the regulations. However, based on the limited number of schools tested by the New York City Department of Education, we do not see a significant risk.

Caulk that contains PCBs at concentrations at or above 50 ppm is considered by EPA to be a *PCB bulk product waste*. This waste is regulated for disposal under the federal PCB regulations and in New York State must be disposed of as a hazardous waste.

EPA has found that the PCBs can move into surrounding materials directly in contact with the caulk, such as brick or concrete. The materials that become contaminated by PCBs released from the caulk, including any soil that might be contaminated by PCBs from crumbling caulk or caulk dust, are considered by EPA to be *PCB remediation waste*. *PCB remediation waste* must also be handled and

disposed of in compliance with state and federal requirements; the specific cleanup levels vary depending on the potential for exposure, and could be as low as 1 ppm.

Frequent contact with PCB-containing caulk or surfaces near such caulk can pose a risk of exposure to PCBs. This is particularly true when the caulk becomes disturbed such as during a building renovation, especially when windows are replaced.

EPA has created a Web page on PCBs in caulk, which can be found at www.epa.gov/pcb/pubs/caulk.htm, and we are developing a brochure and a series of fact sheets on the safe management and disposal of PCB-containing caulk.

We are also working very closely with the New York State Department of Health, the New York State Department of Environmental Conservation, the New York City Department of Health and Mental Hygiene, and the New York City Department of Education to discuss this matter and to obtain information about PCBs present in New York City schools. Once we have reviewed the information provided by the Department of Education, we will be able to assist the department in developing an appropriate course of action.

In conclusion, I would like to emphasize that EPA will continue to work closely with the appropriate state and city agencies to address PCBs in caulk found in schools in New York City and throughout our region. Thank you again for the opportunity to address the committees. I would be glad to answer any questions you may have.

THOMAS DUANE
SENATOR, 29TH DISTRICT
ASSISTANT MINORITY LEADER FOR POLICY AND ADMINISTRATION
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April 10, 2008

Dr. Thomas Frieden, M.D., M.P.H.
Commissioner
New York City Department of Health and Mental Hygiene
125 Worth Street
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Joel I. Klein
Chancellor
New York City Department of Education
52 Chambers Street
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Sharon Greenberger
President
New York City School Construction Authority
30-30 Thompson Avenue
Long Island City, New York 11101

Dear Commissioner Frieden, Chancellor Klein, and President Greenberger,

Given the April 7, 2008 *Daily News* story revealing that low levels of Polychlorinated biphenyls (PCBs) were detected in the first-floor cafeteria of P.S. 199, located in my State Senate District, I appreciate that an emergency meeting was called at the school that night. I sincerely regret that I was unable to attend, as I was in Albany, but my staff informs me that representatives from all three of your agencies were present and brought in-depth information sought by the community.

In reviewing the Department of Education's (DOE) study, which was distributed at the meeting, I was comforted by the fact that PCBs were either not detected or below EPA standards in the air and on surfaces throughout the tested portions of P.S. 199.

However, it is important to note that this study was undertaken weeks after replacement of the school's windows would have disturbed PCBs in the caulking. I was disconcerted to hear that construction workers, custodians, teachers, parents and even students participated in removing the dust that had blanketed classrooms and the cafeteria throughout the replacement project, all without proper warning or safety protocols.

While any exposure to these toxins that may have already occurred cannot be undone, I urge you to honor the requests made by the P.S. 199 Parent Teacher Association (PTA) in its April 3, 2008 and April 10, 2008 letters, and to take the additional steps proposed at the April 7th meeting, many of which will benefit not only P.S. 199 but also schools throughout our City. These include:

- Stop all work on P.S. 199's windows and doors until the toxicity of the remaining caulking can be tested and properly addressed. Parents must be made confident that further work will not expose their children to potentially hazardous dust. More stringent protocols and/or better supervision might be necessary to ensure that the dust is managed more effectively.

- Test dust wipe samples and core samples of the playground and surrounding soil, respectively. I was disturbed to hear that parents reported seeing the detached windows being dropped and dust flying through vents and spreading to areas where the children are most likely to gather during recess. Again, there must be protocols enacted to prevent these accidents from occurring again.

- Test air quality and dust wipe samples in other schools that were constructed while PCB-laden caulk was in use. Schools that are currently undergoing the kind of work that was done at P.S. 199 should be tested first, both to ensure that students of these schools are not in danger and to provide an estimate of the levels of toxicity that were likely present at P.S. 199 during its replacement project.

- Share all pertinent information, including safety protocols and test results, not only with the school administration, but also with the PTA. More generally, I urge you to engage the PTA whenever possible.

- Notify, in advance, the school administrations and parents of students of all New York City public schools in which construction involving potentially hazardous materials is to occur. At the April 7, 2008 meeting, a representative from the DOE explained that testing of caulk in schools is not done because current School Construction Authority (SCA) protocols start with the assumption that dangerous levels of PCBs are present. Although the agencies and its contractors might have been aware of this assumption, nobody in the P.S. 199 school community was so notified.

- The DOE and the Department of Health and Mental Hygiene (DOHMH) should work together to establish contact people and/or other resources for parents who suspect that their children may have been affected by PCB exposure.

- Lastly, I urge you to work more closely with the community and its elected representatives. Parents and teachers should have been notified before information was released to the press. Likewise, as a State Senator representing the 29th district, I should not have had to learn about a major health concern at a school in my district in the press when City agencies were aware of the issue days in advance.

I thank you all for your service and dedication to the safety of the children of our great City and I hope that you act expeditiously on these concerns.

Sincerely,

Tom Duane

Thomas K. Duane
New York State Senator
29th District

cc:
Dennis Walcott, Deputy Mayor for Education and Community Development
Sharon Lustig and Johnna Hampton, Co-Presidents, P.S. 199 Parent-Teacher Association
Katy Rosen, Principal, P.S. 199
Elaine Schwartz, Director, The Center School

FOR THE RECORD

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Testimony of Bronx Borough President

Adolfo Carrion, Jr.

Joint Hearing of the City Council Committees' on Environmental Protection, Oversight and Investigations, and Education

PCB's in New York City Schools

April 29, 2008

Good afternoon. Chairpersons Gennaro, Gioia and Jackson and members of the Committees' on Environmental Protection, Oversight and Investigations, and Education. Thank you for giving me opportunity to present testimony on this very important matter.

I am deeply troubled by recent reports concerning PCBs (polychlorinatedbiphenyls) in city schools. The Department of Education (DOE) has acknowledged high levels of PCBs requiring actions in three schools (PS153 and IS181 in the Bronx and PS199 in Manhattan) and testing contracted by the Daily News found PCBs in eight schools, including five in

the Bronx. Parents concerned for their children's safety must be given a full explanation of how the DOE is addressing potential student exposure to these toxic substances. PCBs were used widely in building construction and for other industrial purposes prior to being outlawed in 1977. There are approximately 266 public schools built between 1950 and 1977 that could contain these toxic materials. Unfortunately, PCBs were so widely used and the compounds are so durable that they pervade not only buildings from the mid-20th century but our ecosystems as well. While there are many sources of potential exposure to PCBs, the impacts on children's developing systems can be particularly harmful. The Department of Education has a unique responsibility to provide a safe environment for students and must take all steps necessary to ensure that they are not exposed to these or any other toxic materials while at school.

Furthermore, I believe this issue of PCB contaminants illustrates a larger problem of inadequate city protocols regarding environmental safety in our schools. We must look critically at how the DOE, the School Construction Authority (SCA) and the Department of Health (DOH) monitor and address environmental issues in city schools. It concerns me that toxic materials have been in public schools for over 40 years yet it took an investigative reporter to uncover this health threat to our children. A citywide assessment and testing program is needed to assure parents, teachers, and children that all city schools provide a safe, healthy, and clean environment for education.

The longer we wait to address this issue, the higher the cost of health impacts and remediation. In the Bronx alone, over 50 schools built between 1950 and 1977 should be tested and any hazardous conditions should be remediated immediately. We have an opportunity and an obligation to address this serious matter. Therefore, DOE and DOH must take the following actions to assure New Yorkers that children are learning in the safest possible environments and that tax dollars will not be going to avoidable fines and lawsuits.

DOE and DOH representatives must meet with the parents, teachers, and workers at the schools in question to address health and exposure concerns.

DOE must immediately develop and implement a thorough plan to determine which schools contain PCBs, assess potential exposure risks, and establish abatement procedures, including time lines and cost estimates.

Given the age of many schools, the historic use of these toxic materials, and the City's responsibility to provide safe, secure learning environments, it is unacceptable that this issue has not been thoroughly addressed before now.

I believe our most important responsibility as Americans is the education of our children. I am sure we all agree that there is nothing more pressing than

ensuring New York children achieve and thrive to their fullest potential. It is time to focus on the important task of educating our children in facilities that will ensure that they will succeed in leading healthy, productive, and extraordinary lives. Thank you.

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Testimony to the Education, Environmental Protection and Oversight and Investigations Committees

Re: PCBs in New York City Public Schools

By Stephanie Tyree, Sustainable Policy Coordinator,

WE ACT for Environmental Justice (WE ACT).

New York, New York

April 29, 2008

Good afternoon, my name is Stephanie Tyree and I am the Sustainable Policy Coordinator for WE ACT for Environmental Justice (WE ACT). WE ACT is a non-profit, community-based environmental justice organization that has spent the past twenty years working to promote environmental health and secure environmental justice for the predominately African-American and Latino communities of Northern Manhattan. Through the use of community organizing, advocacy, and community-based research, WE ACT has worked to reduce the environmental burdens that have traditionally impacted Northern Manhattan communities disproportionately and sought to increase the environmental benefits available to these residents.

I am here today to express WE ACT's concern about the persistence of toxins in New York City public schools, particularly in the form of polychlorinated biphenyls (PCBs). PCBs are a type of man-made organic chemical that was used in a broad range of industrial and commercial applications, including commercial equipment, thermal insulation material, in pigment, dyes and carbonless copy paper, and as plasticizers in paints and adhesives. The chemical was banned in 1979 as increasing scientific evidence documented its carcinogenic properties and the danger the chemical posed to human health. Despite this manufacturing ban, PCBs continue to persist in our society in a number of forms. Most relevantly, PCBs can be found in the caulking of many

buildings built or renovated before 1980.

Since these first findings, extensive research has been done on the health impacts of PCBs. Both animal and human-based studies have shown that PCBs cause potential carcinogenic and definitive non-carcinogenic health effects in humans exposed to even low levels of the toxin. There is clear evidence that PCBs cause cancer in animals, and strong indication that they lead to liver cancer and other carcinogenic effects in humans. These findings have been documented by a range of independent and government institutions, including the Environmental Protection Agency, the National Institute for Occupational Safety and Health, and the International Agency for Research on Cancer.

Even more disturbing is the extent of non-cancer effects PCBs have on humans, particularly infants and children. PCBs have been found to negatively impact the immune, reproductive, nervous and endocrine systems. In effect, PCBs impact nearly every essential bodily system. Two of these impacts in particular deserve to be briefly highlighted. First, studies have found that PCBs significantly impact the development of the nervous system, leading to persistent and extensive deficits in neurological development. For children, this can result in learning deficits. In fact, a recent study has indicated that exposure to PCBs can result in autism-like conditions.[1] Second, PCBs have been found to compromise the immune system, making exposed individuals more susceptible to disease. The most startling finding from these studies is that PCBs affect the immune system at any level. That is, <u>there is no safe level of exposure to PCBs.</u>

The importance of these scientific findings cannot be understated. Placing our city's children in schools with PCBs exposes them to unsafe levels of toxins. The irony, of course, is that the New York City school system is educating children in toxic environments that have direct impacts on their learning development – not to mention their general health.

There are more than 250 public schools that have PCB-laced caulking in classrooms, cafeterias and hallways. Independent tests in some of these schools have found toxicity levels that – at the

[1] T. Kenet, et al., *Perinatal exposure to a noncoplanar polychlorinated biphenyl alters tonotopy, receptive fields, and plasticity in rat primary auditory cortex*, 104 Proceedings of the National Academy of Sciences 18, 7646-7651 (April 25, 2007). Available at:

upper end -- are thousands of times higher than the federal threshold of safe PCB levels. This is an unconscionable daily exposure of children to a toxic environment.

Public officials have stated that the health dangers of PCBs in caulking are limited because it is contained and there is limited documentation that the toxins are airborne within the schools. These statements ignore the impending problem of natural flaking and disintegration of caulk. They also fail to address the fact that PCBs are a persistent toxin that naturally cycle between air, water and soil and are likely to have at least some presence in the soil surrounding the schools, particularly if they have been present in building material for nearly half a century. Studies have found that PCBs bound to sediment are one of the most highly toxic forms of the chemical. This is not a substance that we want children playing, digging and sitting in on a daily basis.

Exposure to PCBs impacts every child equally. Yet, when added to the many other daily toxins that children in environmentally burdened communities- such as Northern Manhattan and the Bronx – are exposed to, their impact must be considered in the aggregate. These children already live in highly toxic environments that place daily strains on their health. School should be a place of learning, enrichment and growth – not another additional burden on their development.

For these reasons WE ACT strongly opposes the presence of PCB-laced caulking in all New York City schools. We call on our public officials in the City Council to respond quickly to this public health threat by demanding the replacement of all caulking in each of the 266 schools that have been found to have PCB materials.

Thank you,

****

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Testimony to the
New York City Council
Re: PCBs in Schools
April 29, 2008

My concern before your committees involves the unwillingness of those in authority to investigate toxic situations in schools and the unwritten policy of indicating that a school is safe, without appropriate independent monitoring.

In the recent PCB reports published in the New York Daily News, there seems to be a code of silence and an urgency to report that a school is safe prematurely, when federal law indicates that no exposure to PCBs is permitted.

In October of 2003, five years ago, I walked out of my classroom in Elmhurst, Queens because there were toxic fumes or vapors which were making me sick. The teacher in the classroom before me reported a similar event. We both had medical records requesting an inspection.

Initially, I thought of informing the parents, then, realized that without a reliable report the school would indicate that the classroom was safe. Despite being protected under Federal Occupational Safety and Health Laws (OSHA), my salary was discontinued.

I discovered that a toxic spill had been reported at the print factory next to my school three months before entering the school. The spill consisted of thee carcinogenic chemicals, but more disturbing was the report that the local water table had extreme levels of dangerous chlorinated solvents known as TLC.

I obtained all of the engineering reports that indicated that ground water was entering the basement throughout and that all of the compressors of the ventilation system were supposed to have been replaced in 2003. There was no public alarm

Since vapor intrusion above a water table can be up to 100 times more dangerous than simple toxic exposure, I wrote a letter to the lead state agencies on vapor intrusion asking for an inspection suspecting a possible health crisis in the school.

I have yet to receive a response from my letter of December 6, 2007

The new capital budget for PS 7 in Elmhurst, Queens calls for repairing the foundation and groundwater intrusion into the basement. A recent posting of the job number by a real estate web site places the cost at 8 million dollars. After five years no one has been able to provide an air quality report for my suspicion of vapor intrusion.

In the Queens court, my attorney requested, through discovery, all environmental information more than a year ago and the city has refused to provide it. I filed an OSHA request, under Federal law to the Department of Education for all Environmental reports on the school, and the Federal law was ignored. The city council called for a review of my concerns with the Department of Education and it was ignored.

In closing, without reliable and independent air quality reports, I am concerned that generations of elementary children in their formative years may be spending their waking hours sitting in a cloud of toxins with no independent monitoring. I believe that the state should monitor all schools for health reasons as well as for the academic requirements that are currently mandated.

Testimony of Veronica Vanterpool, Parent of student at PCB contaminated school

Education and Environmental Protection Joint Hearing on PCBs in the School

Tuesday April 29, 2008

Over the past few months, I have met with several of you on transportation issues as a policy advocate for Tri-State Transportation Campaign. Today, I am here in a different advocate role, that of a parent, my most important advocate role yet. I commend the City Council for seeking answers from the Departments of Education and Health and Mental Hygiene on the effects and mitigation measures of this toxic chemical in the school environment.

Polychlorinated biphenyls are extremely dangerous. Their toxicity, persistence, and ubiquity explain the alarm that has precipitated this hearing and our outrage. They are so toxic that 200 miles of our Hudson River were designated a Superfund site by the US EPA, which mandated that the company responsible for recklessly dumping PCBs into the river in the 1970s, General Electric, begin remediation and removal of contaminated sediment. The ships can be seen as one drives along the West Side Highway. They are so persistent, they never go away. As a result, PCBs are found in the fat tissue and breast milk of most people today, 31 years after they were banned. They are ubiquitously present in our indoor air environments in the form of window and door caulk, old fluorescent lighting fixtures, and electrical casings, in the foods we eat, and the soil upon which we walk and our children play.

They are so harmful that PCBs have been classified as a hazardous substance under CERCLA, SARA, the CWA, the CAA, the US EPA, the Department of Health and Human Services, the International Agency for Research on Cancer, the National Cancer Institute, the World Health Organization, and the Agency for Toxic Substances and Disease Registry. Even pediatricians are signaling the alarm.

In a letter to a concerned parent who found PCBs in caulk at his son's school, Dr. Nathan Graber, a signatory to the letter when he was employed with the Pediatric Environmental Health Specialty Unit at Mount Sinai Hospital, wrote "...children are exquisitely vulnerable to environmental toxins" because their normal hand-to-mouth behavior increase ingestion of soil and dust with potential contaminants. "As a result, children have the potential of increased exposure to PCBs and many other synthetic chemicals." The letter goes on to say, "decreasing exposure will help *protect the children from potential health effects* now and in the future. Removing window caulking known to contain PCBs in the school will remove the source." The letter concludes with praise for the concerned parent and school for its work in protecting its children from exposure to PCBs.

But interestingly, Dr. Graber, who now works for the City's Department of Health, attended a meeting at my son's Co-op city school two weeks ago to convince us parents

that there was minimal health risk to our inner-city children because the PCBs were non-detectable in the air and thus posed no health risk to the students. Where was the school of the concerned parent in the letter, you wonder? In affluent and predominantly white, Yorktown Heights. I would imagine that this contradiction is a huge embarrassment to the Department of Health.

Another embarrassing moment for the City was when representatives from janitorial services, at that same meeting with Dr. Graber, neglected to outline any of the PCB mitigation measures in their cleaning protocol outlined in a recent letter from Commissioner Thomas Frieden of NYC DOH and Mental Health. According to the Commissioner, schools with PCBs should not sweep with dry brooms; should minimize the use of dusters; should wash children's hands with soap and water before eating; and should use vacuums with high-efficiency filters. Not one of these was mentioned by these representatives when parents repeatedly asked what the school was doing to prevent and minimize PCB exposure in the school environment.

There is unanimous agreement that PCBs are harmful. We cannot let the financial cost of remediation be an impediment to protecting our most vulnerable and sensitive population--our children. Our urban children disproportionately suffer from respiratory ailments due to air pollution from non-point sources we often have little direct control over. However, this is point source pollution; we know the source of the pollution and we know how to tackle it.

The caulking must be removed immediately in all NYC public schools were it has been found. I thank Congressmen Jose Serrano and Joseph Crowley for crafting the Safe Schools, Healthy Kids Act, which would provide federal assistance for costs associated with PCB removal. This legislation would not allow cost to be an obstacle to a healthy school environment for our children. Now, it is up to our elected officials in the City Council to impose this urgency and concern upon the Departments of Education and Health for the safety of our most precious resources, our children. The Departments' cavalier approach to safeguarding the health of our children is disgraceful and cannot be allowed. Please set a higher standard of protection for our children by legislating the immediate removal of PCB contaminated caulk in NYCs public schools. We know the Departments charged with doing so have no intention of setting this standard.

Testimony by Anjali Kochar
April 29, 2008
City Council Join Committee Hearing
(Education, Environmental Protection, Oversight)

Good afternoon City Council members, officials of NYC government and concerned parents and children. Thank you for holding this emergency hearing to discuss the issue of PCBs in our city's schools. Thank you also to my Council member Jimmy Vacca for his tireless representation of the concerns of his constituents and those of the city more broadly.

My name is Anjali Kochar.

I come before you this afternoon as a product of the NYC public schools in district 11 in the Bronx and as a parent of a first grader at the Helen Keller School/P.S. 153. I am by nature not an alarmist, but I am here today to express my concern about the possibility of PCBs in our schools, not only in the Bronx, but throughout NYC and potentially nationally. I am not an expert on environmental issues or a scientist, nor do I claim to have all the facts, but here's what I do know – most of which will not be new information for you:

- PCBs are highly toxic
- PCBs travel easily and don't not break down easily

- To date, PCB contaminated caulking has been found in building construction in the northeastern United States and in water storage basins in the west (Environmental Protection Agency)
- Because PCBs travel and don't break down easily, they can be found everywhere in our environment and now in the foods we eat
- NYC public schools have had detectable levels of PCBs above the federal level of 10 µg found in air, dust or soil samples

A couple of weeks ago, Dr. Graber of the Dept. of Health tried to put the PCB levels detected at PS 153 into context by saying that a buttered English muffin contained 9 µg of PCBs and thus the detected 11.7 in classroom 179 was not that much more than what is found naturally in our environment. I cannot dispute this, however this does not mean that we should not be concerned or that we must accept the occurrence of PCBs in an environment in which our children spend at least 6 and a half hours a day if not more. I understand that our school has been completely cleaned and that further testing of the air and dust showed non-detectable or lower levels of PCBs.

However, we all know children touch any and everything, fingers go in the mouth all the time. Imagine a child touching the dust that contains PCB levels at 11.7 µg not only once, but potentially several times a day – it's really not that much of a stretch of the imagination. Imagine a child who lives in an apt or home built between 1960 and the late 70s, who eats a buttered English muffin, a hamburger or fish sticks and then goes to school where she/he is exposed to either dust, air or soil that is contaminated with PCBs

(no matter how low the level). This child is being hit three times with PCBs within and/or above the federal level. One more thing, the buttered English muffin, may contain PCBs, whereas we know that the caulk at PS 153 and other schools is deteriorating and that PCBs are "traveling" and are now found in the air (PS 199 in Manhattan), in the soil (PS 181 in the Bronx) and in dust (PS 153). The question before us is not, are PCBs dangerous to the health of the most vulnerable (our children) – we all know the answer to that question, that is precisely why the U.S. Congress banned them in the late 70s. The question we must ask is, now that PCBs have been detected in our children's environment, how do we contain the PCBs and ensure our children's exposure to them will not be an acceptable cost to children going to school in NYC or nationally?

I am not here to place blame on anyone or any branch of government or institution. I am here to find a way forward, to work and partner with the Dept. of Education, Dept. of Health, the Mayor and the City Council to put in place and help implement next steps.

Rep. Crowley and Rep. Serrano will be introducing legislation in the U.S. Congress that will fund the clean-up and removal of PCB contaminated caulking in schools throughout the country. NYC must take the lead and set the example by moving forward with the testing of caulking in all schools built between 1960 and 1977 and caulking that has PCB levels above the federal standard of 50ppm must be removed.

The health and future of our city and the world depends on the actions of concerned citizens coming together to solve problems like this, putting aside politics to make the

right decision based on the facts or in this case, current federal standards. It is up to all of us to safeguard the future of all children regardless of where they live whether it be in your own home, across the street, or in another city, state or country.

Thank you for this opportunity to speak before you.

Testimony of Veronica Vanterpool, Parent of student at PCB contaminated school

Education and Environmental Protection Joint Hearing on PCBs in the School

Tuesday April 29, 2008

Over the past few months, I have met with several of you on transportation issues as a policy advocate for Tri-State Transportation Campaign. Today, I am here in a different advocate role, that of a parent, my most important advocate role yet. I commend the City Council for seeking answers from the Departments of Education and Health and Mental Hygiene on the effects and mitigation measures of this toxic chemical in the school environment.

Polychlorinated biphenyls are extremely dangerous. Their toxicity, persistence, and ubiquity explain the alarm that has precipitated this hearing and our outrage. They are so toxic that 200 miles of our Hudson River were designated a Superfund site by the US EPA, which mandated that the company responsible for recklessly dumping PCBs into the river in the 1970s, General Electric, begin remediation and removal of contaminated sediment. The ships can be seen as one drives along the West Side Highway. They are so persistent, they never go away. As a result, PCBs are found in the fat tissue and breast milk of most people today, 31 years after they were banned. They are ubiquitously present in our indoor air environments in the form of window and door caulk, old fluorescent lighting fixtures, and electrical casings, in the foods we eat, and the soil upon which we walk and our children play.

They are so harmful that PCBs have been classified as a hazardous substance under CERCLA, SARA, the CWA, the CAA, the US EPA, the Department of Health and Human Services, the International Agency for Research on Cancer, the National Cancer Institute, the World Health Organization, and the Agency for Toxic Substances and Disease Registry. Even pediatricians are signaling the alarm.

In a letter to a concerned parent who found PCBs in caulk at his son's school, Dr. Nathan Graber, a signatory to the letter when he was employed with the Pediatric Environmental Health Specialty Unit at Mount Sinai Hospital, wrote "...children are exquisitely vulnerable to environmental toxins" because their normal hand-to-mouth behavior increase ingestion of soil and dust with potential contaminants. "As a result, children have the potential of increased exposure to PCBs and many other synthetic chemicals." The letter goes on to say, "decreasing exposure will help *protect the children from potential health effects* now and in the future. Removing window caulking known to contain PCBs in the school will remove the source." The letter concludes with praise for the concerned parent and school for its work in protecting its children from exposure to PCBs.

But interestingly, Dr. Graber, who now works for the City's Department of Health, attended a meeting at my son's Co-op city school two weeks ago to convince us parents

that there was minimal health risk to our inner-city children because the PCBs were non-detectable in the air and thus posed no health risk to the students. Where was the school of the concerned parent in the letter, you wonder? In affluent and predominantly white, Yorktown Heights. I would imagine that this contradiction is a huge embarrassment to the Department of Health.

Another embarrassing moment for the City was when representatives from janitorial services, at that same meeting with Dr. Graber, neglected to outline any of the PCB mitigation measures in their cleaning protocol outlined in a recent letter from Commissioner Thomas Frieden of NYC DOH and Mental Health. According to the Commissioner, schools with PCBs should not sweep with dry brooms; should minimize the use of dusters; should wash children's hands with soap and water before eating; and should use vacuums with high-efficiency filters. Not one of these was mentioned by these representatives when parents repeatedly asked what the school was doing to prevent and minimize PCB exposure in the school environment.

There is unanimous agreement that PCBs are harmful. We cannot let the financial cost of remediation be an impediment to protecting our most vulnerable and sensitive population--our children. Our urban children disproportionately suffer from respiratory ailments due to air pollution from non-point sources we often have little direct control over. However, this is point source pollution; we know the source of the pollution and we know how to tackle it.

The caulking must be removed immediately in all NYC public schools were it has been found. I thank Congressmen Jose Serrano and Joseph Crowley for crafting the Safe Schools, Healthy Kids Act, which would provide federal assistance for costs associated with PCB removal. This legislation would not allow cost to be an obstacle to a healthy school environment for our children. Now, it is up to our elected officials in the City Council to impose this urgency and concern upon the Departments of Education and Health for the safety of our most precious resources, our children. The Departments' cavalier approach to safeguarding the health of our children is disgraceful and cannot be allowed. Please set a higher standard of protection for our children by legislating the immediate removal of PCB contaminated caulk in NYCs public schools. We know the Departments charged with doing so have no intention of setting this standard.

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Testimony of
MIRANDA MASSIE and DAVE PALMER
on behalf of
NEW YORK LAWYERS FOR THE PUBLIC INTEREST
before the
NEW YORK CITY COUNCIL ENVIRONMENTAL PROTECTION, INVESTIGATIONS AND EDUCATION COMMITTEES
Joint Oversight Hearing on
PCBs IN OUR SCHOOLS
April 29, 2008

Good afternoon Chairpersons Gennaro, Gioia and Jackson, and other members of the Environmental Protection, Investigations and Education Committees. Thank you for the opportunity to provide testimony today. My name is Dave Palmer, and I am a Staff Attorney with New York Lawyers for the Public Interest (NYLPI). With me is Miranda Massie, a Senior Staff Attorney at NYLPI. NYLPI is a nonprofit civil rights law firm formed in 1976 to address the unmet legal needs of New Yorkers. In 1991, NYLPI formed its Environmental Justice & Community Development Project to represent communities facing disproportionate environmental burdens.

As you know, our organization represents a number of community groups facing issues related to the siting of schools on contaminated properties around New York City. Given this work, we have received a number of calls from parents, teachers and community-based organizations concerned about the presence of PCB-contaminated caulking in public schools. On behalf of these concerned individuals and organizations, we've begun to research some of the exposure risks that may be associated with the presence of PCB-contaminated caulking in schools, the health outcomes related to actual exposure, the gaps in information that has been made available by the involved agencies and the pertinent legal avenues for addressing the PCB concern, if needed. Below, Miranda will present some of what we have learned.

First and foremost, as with all of our toxic schools work, we hope to see a precautionary approach taken by the responsible agencies, with an eye towards protecting children's health. We thank the City Council for its leadership in seeking to address this issue, and hope you will continue to play an active role in overseeing the response to this serious concern. Ms. Massie will now provide our detailed testimony.

Good afternoon. Again, my name is Miranda Massie. On behalf of New York Lawyers for the Public Interest, I join Mr. Palmer in thanking the Council and in particular Council Members Gennaro, Gioia, and Jackson. We are grateful that you have convened a hearing on this urgent question of public health and environmental justice and that you have invited us to testify.

In what follows, I will first address the state of the law. Second, I will try to convey a sense of the accumulating scientific evidence on the risks to health posed by PCBs, including where exposure levels are low. And finally, I will call on the Departments of Education and Health and the Environmental Protection Agency to respond to this situation in a manner that puts the well-being of teachers, staff, and above all students first.

Before I start, let me say that we will be happy to provide copies of the relevant statutory and regulatory language and of the scientific studies I will be mentioning if that information would be useful.

Introduction

PCBs were added to caulk starting in the 1950's to increase its elasticity. Subsequently, as will be addressed further below, PCBs were found to be a potent, persistent, bioaccumulating toxin linked to cancer and to damage to the reproductive, neurological, endocrine, and immune systems, and were banned. Beginning in the 1990s, European studies identified PCBs in caulk as a previously unrecognized potential source of risk to human health (the main applications of PCBs had been not in construction but in electrical equipment). Studies showed that PCBs in intact caulk traveled to indoor air and dust, to adjoining masonry, and to outdoor soil.

Beginning in the early 2000s, more scientific and public attention has been directed at this issue in the United States, in part due to large-scale remediation projects at a University of Massachusetts campus and at the University of Rhode Island when caulk on those campuses was found to be contaminated with PCBs. Now the issue has come to a head in New York State, not just here in the City following the Daily News investigation, but also in Yorktown, where the School District remediated PCB-contaminated caulk and has now sued the sole manufacturer of PCBs in the US to recoup the cost of having cleaned up.

LEGAL FRAMEWORK

1. The unlawfulness of PCBs in caulk

It is important to state clearly that the pertinent legal question raised by published scientific studies of caulk and by the independent lab tests commissioned by the Daily News is whether the caulk itself is contaminated with PCBs. At schools built or

renovated when PCB-containing caulk was in use, the caulk may be contaminated and must itself be tested by the School Construction Authority to ensure compliance with federal law. Air tests and wipe tests can provide us with useful information but they are not a substitute for direct analysis of the potential source of contamination.

The presence of PCBs in caulk violates the Toxic Substances Control Act, 15 USC §§2601 *et seq.* ("TSCA") and the Environmental Protection Agency regulations implementing TSCA, 40 CFR §§761.1 *et seq.* ("the PCB regulations").

TSCA, enacted in 1976, gives the EPA broad regulatory authority over potentially hazardous chemicals. While Congress generally delegated decision-making on toxins to the EPA in TSCA, it explicitly banned PCBs, subject to exceptions, in §2605(e). Congress also directed the EPA quickly to promulgate rules for the management, disposal, and labeling of PCBs, which the EPA did in the PCB regulations.

Under TSCA §2605(e)(2)(A), as of January 1978, "no person may... use *any* polychlorinated biphenyl in *any* manner other than in a totally enclosed manner" (emphases added). A "totally enclosed manner" is defined in the PCB regulations at 40 CFR § 761.20 as "a manner which results in no exposure to humans or the environment to PCBs."[1] The caulk in New York's schools is clearly not "totally enclosed" under the PCB regulations.

TSCA and the PCB regulations provide for additional lawful uses of PCBs, i.e., lawful uses of PCBs in a non-totally enclosed manner. Congress authorized the EPA to specify these additional authorized uses in TSCA at §§2605(e)(2)(B) and (3)(B). The EPA did so in the PCB regulations at §§761.30 *et seq.* These specifically enumerated authorized uses have no bearing on caulk in any context. The pertinent sections address heavy industrial uses of PCBs in transformers, electromagnets, heat transfer systems, etc.

Under the EPA's strict regulatory scheme, any PCBs in the caulk in New York City schools are (1) not totally enclosed and (2) not otherwise authorized; therefore, their presence is unlawful. If the results obtained in the tests conducted by Northeast Analytical Laboratory at the request of the Daily News are accurate, some city schools have PCB-containing caulk and are in violation of the law. These violations could subject the Board of Education to fines of up to $27,500 per school per day under TSCA §2615; enforcement action by the EPA under § 2616; and citizen lawsuits under TSCA §2619.

2. PCB levels over 50 parts per million

As we have seen, any level of PCBs in the caulk violates TSCA.

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[1] The full text of the definition reads as follows: "For purposes of determining which PCB Items are totally enclosed... the Administrator...finds that a totally enclosed manner is a manner which results in no exposure to humans or the environment to PCBs. The following activities are considered totally enclosed: distribution in commerce of intact, nonleaking electrical equipment such as transformers (including transformers used in railway locomotives and self-propelled cars), capacitors, electromagnets, voltage regulators, switches (including sectionalizers and motor starters), circuit breakers, reclosers, and cable that contain PCBs at any concentration and processing and distribution in commerce of PCB Equipment containing an intact, nonleaking PCB Capacitor." 40 CFR § 761.20

However, the EPA regulations also refer specifically to PCB levels at or above 50 parts per million (ppm). These specific references bear on the matter before the Council because Northeast Analytical found caulk containing over 50 ppm PCBs at 6 of 9 schools tested in the Daily News investigation. The EPA has found that such levels, *regardless of circumstances,* "present an unreasonable risk of injury to health within the United States," 40 CFR §761.20.

The reasons for this finding are described as follows:

> ...the well-documented human health and environmental hazard of PCB exposure, the high probability of human and environmental exposure to PCBs and PCB Items from manufacturing, processing, and distribution activities...and the evidence that contamination of the environment by PCBs is spread far beyond the areas where they are used. *Ibid.*

Further, when a material or item containing levels at or above 50 ppm is to be disposed of, it constitutes "PCB bulk product waste", i.e., toxic waste. *See* 40 CFR §761.3.

That said, it bears repetition tha tno level of PCBs is considered *a priori* safe:

> ...*any* exposure of human beings or the environment to PCBs, as measured or detected by any scientifically acceptable analytical method, may be significant, depending on such factors as the quantity of PCBs involved in the exposure, the likelihood of exposure to humans and the environment, and the effect of exposure. 40 CFR §761.20. (Emphasis added)

The reason Congress banned PCBs and the reason the EPA enacted such strict regulations, refusing to designate any level of contamination as safe, is the degree of toxicity of PCBs. Now I will turn to the body of scientific evidence on that question.

THE SCIENTIFIC EVIDENCE

First, a caution: there is no study exactly on point documenting the effects on children of the degree and manner of PCB exposure at issue here. However, even though research on PCBs has not yet connected all the dots, it is not hard to tell what the picture is going to be. Again, there is no safe level of exposure to PCBs, and while we currently cannot calculate precisely the severity of the risk posed to children by PCBs in caulk, the evidence supports substantial efforts to reduce levels of exposure as much as is feasible.

Below is a non-exhaustive list of findings published in scientific journals supporting that conclusion. To be clear, there are also studies that failed to find relevant relationships (such as between environmental levels of PCBs and blood serum levels of PCBs). Sometimes the measuring methods are too blunt to capture what is essentially a probabilistic impact. Beyond that, both independent experts and the EPA caution that negative test outcomes must be regarded as inconclusive given the impossibility of isolating the effects of PCBs from the effects of other environmental factors on human subjects.

In overall terms, the impact of PCBs on health is extremely destructive. PCBs cause cancer in animals and have been designated a probable human carcinogen as well. PCBs are neurotoxins and immunotoxins. They disrupt endocrine and reproductive function. Their prenatal impact is severe and it is uncontroversial that they have more acute impacts on children than adults, i.e. that they are a developmental toxin.

A number of relatively recent studies have examined the impact on health of low levels of exposure to PCBs.

- Background (non-acute) exposure to PCBs just after birth had probable health impacts on Dutch children that persisted for years (more infectious diseases; consequently and ironically, fewer allergies) (Hooijkaas 2000).

- Prenatal exposure to environmental (non-acute) levels of PCBs appeared to create developmentally significant sex steroid hormone effects to the point where degree of exposure was associated with sex-role differences in childhood play (Weisglas-Kuperus 2002).

- Chronic exposure of adults in a workplace to low levels of PCB air contamination was associated in a small sample with negative neuropsychological outcomes including attentional attenuation measured both subjectively and objectively (Peper 2005).

- Low level environmental exposure of children to PCBs correlates strongly with IgM levels. (IgM is an antibody the presence of which indicates infection.) PCBs, other organochlorine compounds, and lead appear to have immunomodulating effects on children at low levels of exposure. The study focused on three regions with different degrees of major agricultural and industrial uses and destruction of the target chemicals. Note that increased blood levels of PCBs correlated with proximity to a toxic waste incinerator (Karmaus 2005).

- An increase in prenatal PCB exposure from the 10^{th} to the 90^{th} percentile (in the Czech Republic from 2002 through 2004) was associated with a 7% reduction in thymus size at birth. (For babies of smokers versus non-smokers, there was a 3% reduction in thymus size.) The thymus is important for immune function, in particular for the development of T cells. Note developmental connections between immune and nervous systems and possible implications for neuro-behavioral disorders. This study includes a brief summary of work on PCBs as an immunotoxin and the effects of prenatal effects of PCBs (Hertz-Picciotto 2008).

- Exposure to PCBs in girlhood appears to increase women's PCB body burden during pregnancy (Glynn 2007).

Recent studies have also documented the relationships between PCBs in caulk and other construction materials; PCB levels in interior air and dust; and PCB blood levels of residents, employees, and students.

- Wood floor finish containing PCBs was associated with elevated PCB levels in (1) household air and dust and (2) residents' blood (Rudel 2008). A quotation from Rudel 2008:

- Apartment buildings containing PCB caulk have higher indoor air levels of PCBs; residents' blood serum levels of PCBs were significantly higher than those of the control group (Johansson 2003).

- Students attending a school with PCB air contamination have clearly elevated blood serum levels of lower-chlorinated PCBs than students in a non-contaminated school. Blood concentrations increase with the number of years spent attending the school with air contamination (Liebl 2003).

- That PCB-contaminated caulk causes indoor PCB air contamination has been documented for a long time (e.g. Burkhardt 1990).

Finally, contamination of adjoining masonry and soil by PCB-containing caulk has been established by numerous studies (e.g., Herrick 2007, Ljung 2002).

In sum, while science has yet to answer many questions about the impact of contaminated caulk in schools on children's health, the developing evidence provides at minimum a strong basis in reason for serious concern. That assessment frames our policy recommendations, to which I now turn.

POLICY RECOMMENDATION

We believe that prioritizing the health of the children and adults in NYC schools requires testing the caulk in schools built or renovated between the mid-1950s and the late 1970s. Wipe tests and air tests are no substitute for testing the caulk itself and do not address the basic issue before the Council.

Where tests reveal PCB contamination, the caulk should be replaced, as required by law. Where analysis shows that the caulk contains 50 ppm or more PCBs, the caulk should be replaced as soon as possible. The EPA as well as independent medical, scientific, and hazardous waste experts should be consulted so that a safe plan to remove and replace the caulk can be devised and interim protective measures put in place.

Again, we thank the City Council for its leadership on this urgent issue and for the opportunity to address you.