August 20, 2010

Document Control Office (7407M)
Office of Pollution Prevention and Toxics (OPPT)
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC   20460

Re: Advance notice of proposed rulemaking on PCB use authorizations
   Docket No. EPA-HQ-OPPT-2009-0757

Dear Madam/Sir:

For two years and several months, New York City (NYC) has been home to a series of community efforts to rid schools of polychlorinated biphenyls (PCBs) and in particular of the PCBs found in caulk. A Bronx coalition of concerned parents, the NYC Coalition for PCB-Free Schools, together with parents, school maintenance workers, teachers, and community members from across the metro area, has worked with environmental justice, environmental, and labor organizations, staff members at the Environmental Protection Agency (EPA), and elected officials to advocate for action on this emerging public health threat. This firm has partnered with the coalition in these efforts and represented one of its members in litigation over PCBs in her daughter’s Bronx elementary school. We now submit these comments in response to the advance notice captioned above on behalf of the coalition and other organizations and individuals profoundly troubled by EPA’s current proposal to weaken or eliminate its regulations pertaining to PCBs in caulk and other non-liquid products.¹ We strongly urge EPA not to take this large step in the wrong direction. PCBs in caulk pose a significant threat to children’s health and demand more regulation and enforcement, not less.

PCBs, in addition to their more familiar use in electrical equipment, were added to window- and door-frame caulking to make it more durable and elastic. PCBs persist in the environment, migrate into mortar, brick, and soil, and spontaneously volatilize into air; thus, wherever PCB-contaminated caulk remains in place exposure pathways continue to exist despite the 1978 ban on PCBs in the Toxic Substances Control Act, 15 USC §§2601, et seq. (TSCA).

¹ The organizations and individuals who join in these comments are identified in Attachment A.
These exposure pathways cause parents and others a great deal of concern. A substantial and growing body of peer-reviewed research has begun to define the extent and nature of the risks posed by environmental exposure to PCBs. Much remains to be investigated, but it is now known with certainty that PCBs are powerfully neurotoxic, immunotoxic, developmentally toxic, and endocrine-disrupting, with potential health effects even at low doses. A short and highly selective summary of some of the research carried out in the years since EPA’s PCB regulations were adopted is attached to this letter.2

EPA has responded to community concerns about the health risks posed by PCBs in caulk by issuing new guidances on PCBs in caulk, revamping and greatly expanding website coverage of the issue, and announcing two national research initiatives. Additionally, in January 2010 EPA Region 2 reached a landmark agreement with the NYC Department of Education pursuant to which the Department will carry out a pilot study designed to produce a citywide plan for addressing the risks associated with PCBs in its schools. This pilot study is now underway. While we have expressed reservations about specific aspects of EPA’s recent activity on PCBs, in overall terms it can only be regarded as substantial and positive.

With the advance notice of proposed rulemaking (ANPRM) on PCB use and distribution authorizations, EPA has placed these gains for children’s environmental health in jeopardy. The notice, among numerous provisions, briefly addresses (1) the possible authorization of the use of some non-liquid PCB-containing products and (2) the reconsideration of the 50 parts per million (ppm) threshold for excluded PCB products. In other words, the notice proposes to relax or even eliminate restrictions on PCBs in caulk.

These caulk-related proposals should be rejected for several reasons: they conflict with the rest of the ANPRM; the justification given for them is unconvincing at best; there is no support for them in science; and they are exceptionally ill-timed in light of EPA’s recently launched efforts on PCBs as sketched above.

First, the ANPRM’s approach to the caulk issue conflicts with the rest of the notice in a manner that shows how rash it is. The basic impetus of the notice is to reevaluate the regulations that govern equipment containing PCBs in light of the relatively old age of both the rules, which were promulgated shortly after TSCA was passed, and the extant equipment itself, all of which, given TSCA’s ban on new PCBs, is now more than 30 years old. Because this equipment may be starting to fail and to leak, and because understanding of the severe toxicity of PCBs has advanced, EPA rightly seeks to evaluate the regulations in order to ensure they are sufficiently protective:

The objective of this ANPRM is to announce the Agency’s intent to reassess the current use authorizations for certain PCB uses to determine whether they may now pose an unreasonable risk to human health and the environment.

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2 Attachment B.
Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations, 75 Fed. Reg. 17,650 (Apr. 7, 2010)

Accordingly, the substantial majority of the notice goes through various PCB uses with an eye toward imposing greater restrictions on them. Tellingly, the very threshold of 50 ppm that is called into question for the unenclosed use of caulk is continually reinforced throughout the rest of the notice as a valid regulatory threshold for enclosed uses. For example, EPA proposes to consider compelling the owners of equipment containing enclosed PCBs at concentrations above 50 ppm either to dispose of the equipment or to reclassify it, (i.e., to replace some or all of its fluid in order to dilute the concentration of PCBs to a level below 50 ppm). 75 Fed. Reg. 17,653. As another example among many, EPA expresses concern over information it has received indicating that PCBs can be found at levels over 50 ppm in natural gas pipelines, and states that it is considering requiring extensive sampling whenever PCBs are found at levels above 1 ppm in a pipeline system. 75 Fed. Reg. 17,657.

The plain contradiction between these and other proposals in the ANPRM, on one hand, and the caulk proposals, on the other, undermines the coherence of the document and causes skepticism about the legitimacy of the caulk provisions. If 50 ppm is presumed to be valid as a threshold level for regulation inside a capacitor, it is hard to imagine the scientific or public-health basis for calling it into question for unenclosed substances in a school classroom. Similarly, if it is a level that EPA believes to cause legitimate concern inside a pipeline, then it should cause even more concern when identified in classroom caulk, from which PCBs are known to volatilize spontaneously.

More generally, reading the lengthy, elaborated notice, and encountering at the end of various sections the anomalously short and technically undetailed subsections on caulk, one is left with a strong impression the caulk subsections were hastily and carelessly tacked on to the ANPRM without regard to their potential impact on human health and the environment.

That these proposed changes are not driven by emerging scientific or public health considerations is confirmed by one of EPA’s two stated reasons for them: “EPA is seeking comment…on whether the number 50 ppm should be changed given the recent realization that the use of PCBs in caulk may be widespread and may be an undue burden for schools if the exclusion continues at 50 ppm.” 75 Fed. Reg. 17,658. To dismantle regulations that restrict the presence in schools of a potent toxin on the sole basis of the projected cost of remediation is rigorously incompatible with EPA’s mission: “to protect human health and to safeguard the natural environment—air, water and land—upon which life depends.”

Ironically, the other reason provided for the reconsideration is that the original adoption of the 50 ppm level was itself “based almost entirely on economic considerations.” 75 Fed. Reg. 17,658. As an initial matter, EPA cannot credibly disparage the strictly economic character of a rationale to justify a claimed lack of confidence in existing regulations while simultaneously offering up another strictly economic rationale as the central basis for
revisiting them. More importantly, EPA’s current claim is flatly belied by what it said in adopting the 50 ppm standard in 1979:

[T]he manufacture, processing, and distribution in commerce of PCBs at concentrations of 50 [parts per million (ppm)] or greater present an unreasonable risk of injury to health… This finding is based on the well-documented human health and environmental hazard of PCB exposure… 40 CFR §761.20 (emphases added).

Science supported the adoption of a low threshold for PCBs in 1979 and the scientific basis for such a threshold has become much stronger since. As is summarized in Attachment B, peer-reviewed studies have shown associations between children’s exposure to low levels of PCBs and leukemia, disturbance of immune function, and reduced IQ (Ward, et al., 2008; Weisglas-Kuperus, 2002; Stewart, 2008); such studies have also linked low exposure levels in adults with attentional deficiencies, cardiovascular disease, diabetes, and hypertension (Peper, et al., 2005; Sergeev, et al., 2005; Kouznetsova, et al., 2007)). In most cases, these studies focused on environmental exposure alone rather than environmental and dietary exposure combined. Again, the findings mentioned here and summarized in the attachment represent a fraction of the growing body of research establishing the risk of significant, detrimental impacts on human health posed by minimal PCB exposure.

Further, the more the scientific inquiry advances, the more toxic PCBs are understood to be. As the ANPRM notes, in a section apparently drafted before the caulk-related provisions were appended, “[p]reliminary indications from the 2003 Draft Dioxin Reassessment are that the toxicity of PCBs in general is higher than the toxicity values that EPA used in developing previous TSCA PCB regulations.” 75 Fed. Reg. 17,651. It is presumably for this reason that the notice contemplates loosening the TSCA regulations with respect to no other source of potential environmental exposure. On the contrary, as discussed above, it only invites comment on the prospect of tightening controls except in relation to PCBs in caulk (and other non-liquid PCBs).

In short, the notice provisions relating to caulk constitute an unacceptable departure from EPA’s articulated norm of basing policy on science. There is no scientific basis for relaxing the regulations; the available research strongly points in the opposite direction. Because the caulk-related proposals in the ANPRM combine this disregard for science with a complete silence on health and the environment, and because of their contradictions with the rest of the document, they discredit EPA and their adoption would be arbitrary and capricious. We urge you to reject them.

Finally, any reengagement with the regulations governing caulking should include proposals to strengthen the regulations by lowering the enforcement threshold recognized by EPA and to mandate caulk sampling in buildings constructed or renovated in the applicable timeframe. Testing is urgently necessary prior to renovation projects; in NYC, we are aware of two
schools with PCB-contaminated caulk in which window renovations undertaken without sampling, and consequently without precautions, resulted in large releases of PCB-contaminated dust into interior air. Stricter limitations and mandatory testing are needed to protect the health of those who live, work, and go to school in buildings in which the caulk may be contaminated with PCBs.

Please let us know if we can provide additional assistance.

Sincerely,

Miranda K.S. Massie
Attachment A

Descriptions of Signatories

Organizations and Elected Officials

The Bronx Health Link, Inc., is a nonprofit clearinghouse for health and human service delivery professionals in the Bronx. The Bronx Health Link, Inc. works extensively with the community and health care providers on a range of health issues, particularly seeking to improve birth outcomes, prenatal care, and the reproductive health of Bronx women.

The Center for Health, Environment & Justice exists to mentor the movement to build healthier communities by empowering people to prevent harm caused by chemical and toxic threats. Following her successful effort to prevent further harm for the people living in contaminated Love Canal, Lois Gibbs founded CHEJ in 1981 in order to continue the journey. To date, CHEJ has assisted over 10,000 groups nationwide.

Citizens Campaign for the Environment (CCE), formed in 1985, is a not-for-profit, non-partisan advocacy organization, that represents 80,000 members across New York State and Connecticut. CCE works for the protection of public health and the natural environment by engaging in extensive education, research, lobbying and public outreach.

Clean New York (CNY), a project of Women's Voices for the Earth, has a mission to protect New York's people and communities from toxic chemicals. CNY works for a clean environment, clean food, clean products and clean bodies, and highlight the failings or our current chemical management system through product testing, biomonitoring and grassroots advocacy.

The Community District Education Council 11 “proudly signs on and supports your position.”

Empire State Consumer Project

Environmental Justice Action Group of WNY (EJAG) is a non-profit, community-based, environmental justice organization dedicated to building community capacity to fight environmental racism and improve environmental health, protection and policy in communities of low income and color. EJAG accomplishes its mission through community organizing, education and training, advocacy and research, and public policy development.

The Institute for Health and the Environment of the University at Albany was developed to provide a format for interdisciplinary research on issues related to both health and the environment among faculty from the various parts of the University, as well as to promote collaboration with scientists and policy makers from government and other academic organizations. A major focus of Institute activities is to facilitate the application of scientific research findings to policy and practice.
The JustGreen Partnership is a New York State-wide consortium of 50 community, labor, business, health-affected, environmental justice, faith-based, academic, environmental conservation, consumer advocacy, and other organizations representing over a million New Yorkers. The JustGreen Partnership seeks to build a healthy economy that provides good jobs producing clean products and services, in which our workplaces, schools, homes, communities and bodies are free of toxic chemicals.

Linda B. Rosenthal, New York State Assemblymember, represents the 67th Assembly District, which includes the Upper West Side and parts of Clinton/Hell’s Kitchen in Manhattan. Her involvement in the still-emerging crisis of PCB contamination in New York City schools began in 2008 with news that caulk material containing PCBs had been detected at P.S. 199, an elementary school in her district that was constructed in 1968, more than a decade before the EPA banned this substance. Of the eight different locations tested for PCBs by the Daily News as part of an investigative story, P.S. 199 had the highest recorded concentration levels.

National Resources Defense Fund (NRDC) is a leading environmental action organization whose mission is to safeguard the Earth: its people, its plants and animals and the natural systems on which all life depends.

New York City Environmental Justice Alliance (NYC-EJA) is a non-profit, 501(c)(3) city-wide membership network linking grassroots organizations from low-income neighborhoods and communities of color in their struggle for environmental justice. Founded in 1991, NYC-EJA empowers its member organizations to advocate for improved environmental conditions and against inequitable environmental burdens by the coordination of campaigns designed to affect City and State policies. Through NYC-EJA’s efforts, member organizations coalesce around specific common issues that threaten the ability for low-income communities of color to thrive. NYC-EJA’s member organizations include UPROSE, El Puente, West Harlem-Morningside Heights Sanitation Coalition, The Point CDC, Youth Ministries for Peace & Justice and Nos Quedamos.

The New York Committee for Occupational Safety and Health (NYCOSH) is a membership organization of workers, unions, community-based organizations, health and legal professionals, and other activists. The mission of NYCOSH is to extend and defend every person’s human right to a safe and healthful work environment.

The NYC PCB-Free Schools Coalition is a growing community of parents, advocates, and experts who are working to protect children and staff from the known severe toxicity of PCBs. The coalition’s central demand is that the Department of Education (DOE) test and clean up PCB-contaminated public school buildings.

Parent Association of PS 160x, Co-op City

WE ACT for Environmental Justice (WEACT) is a Northern Manhattan community-based organization whose mission is to build healthy communities by assuring that people of color and/or low-income participate meaningfully in the creation of sound and fair environmental
health and protection policies and practices. One of WEACT’s indicators for a healthy community is one that is free of chemicals at levels harmful to human health.

**Individuals**

**Richard Barr** is the Chair of the External Affairs Committee of the Parent Association of the Bronx High School of Science (a PCB-era school). He formerly held the same position on the PTA of the Center School, a middle school in the PS 199 building, Manhattan (one of the PCB sample schools). He was also the Vice President and co-chair for the Political Action Committee of Presidents’ Council, Community School District 3, Manhattan, a member of the Legislative Committee for the Citywide Chancellor’s Parent Advisory Council, and Vice President and chair of Facilities Committee at Hunter College High School, Manhattan, another "environmentally-challenged" school building.

**Kimberly Norton Butler, Ph.D.** is a former parent at PS 199, former PS 199 PTA Vice-President (2008-2009), and former Co-President of the PS 199 PTA Construction Committee.

**Patricia Donegan and Robert Orlando, Jr.** "We are the parents of a student who attended PS53 in Staten Island. Built in 1966, the school underwent a major window renovation and construction project in 2006-2007. This large renovation was done nightly during the school year and caused a major amount of dust in the classrooms and it disturbed PCB caulking. The dust was so bad it caused an exacerbation my son’s asthma. Regulations should not be loosened on PCBs, but rather, they should be made stricter to ensure proper precautions are taken not to disperse PCBs in dust or contaminate any school. Every child and adult in these buildings deserves to be protected from this very dangerous toxin. We can only prevent exposure to PCBs through tougher regulations, whatever the cost."

**Naomi Gonzalez** , a member of the NYC PCB-Free Schools Coalition, has a daughter who attends PS 178 in Co-op City. She agreed to suspend her lawsuit against the Department of Education (DOE) over the PCBs at PS 178 when the DOE announced its PCBs pilot study and included her daughter’s school in the study.

**Barbara Healy** “As a concerned New York City parent, I would like to sign onto the coalition statement. It is imperative that the current regulations remain as strict as they are, and PCB testing should be mandated in all New York City schools. Also, every precaution should be taken to not contaminate buildings and expose children, teachers and all people in the buildings to this very dangerous toxin.”

**Robert Herrick** is a Senior Lecturer at Harvard School of Public Health. Dr. Herrick has over 40 years experience in environmental and occupational health research, and he has focused on the risks associated with PCB exposures from building materials in his recent investigations. The views expressed are those of Robert Herrick and not of Harvard University.

**Daniel Lefkowitz** is the parent of a child who attended the French Hill Elementary School in Yorktown Heights and, in the fall of 2004, discovered hazardous levels of PCB in the window
caulking and soil around his school. His campaign to procure remediation dramatically increased public awareness of the problem of PCBs in caulk.

**Marvin Shelton** is a parent of a child who attends PS 24, a school where elevated levels of PCBs were discovered during last summer's window replacement project.

**Eileen Tafuri** “I am the parent of two young children who spend many hours a day, year after year, in a school with PCB caulking. The school has yet to have a window renovation. I am asking the EPA to keep the current regulation for PCBs as they are, and if anything, to make them more tough when it comes to schools. We absolutely cannot allow any child to be exposed to this toxin. We must take every precaution available to remediate responsibly.”

**Valerie Watnick** is an Associate Professor in the Law Department of Baruch College, Zicklin School of Business, City University of New York, and a parent at PS 199.

**George Weymouth** is a retired craftsman from the International Union of Bricklayers and Allied Crafts (IUBAC) Local 3, Boston MA. Mr. Weymouth worked extensively in building construction throughout New England, and he recalls installing PCB caulk in hundreds of buildings over a 30-year period.
The evidence for PCBs as a cause of cancer is strong. They are considered to be known carcinogens in animals, and probable carcinogens in humans. One study discovered that children’s risk of developing the most common form of childhood leukemia, acute lymphocytic leukemia, increased by two-fold when PCBs were detected in the dust of a room in which the child spent a significant amount of time (Ward, 2009). PCBs effects as developmental toxins are less well-characterized, however there is a rapidly emerging body of human and animal studies that implicate PCBs as disruptors of normal immune system development. Human studies show relationships between PCB exposures and lowered levels of immunoglobulins M and A (IgM and IgA) and increases in respiratory infections (Nakanishi, 1985). There is also evidence that PCBs are associated with immune system disruptions including increases in B cells and decreases in CD8+ and natural killer cells (Svensson, 1994).

Studies indicate that both children and adults have an increased risk of asthma and other infectious respiratory diseases when exposed to persistent organic pollutants, including PCBs (Ma, 2007 & Carpenter, 2008). Residents living in communities adjacent to the Hudson River, which contains high levels of PCBs, had an increased rate of hospitalization for coronary heart disease by over 35% and for acute myocardial infarction by nearly 40% (Sergeev, 2005). An amplified rate of hospitalization for diabetes was observed in communities near a toxic waste site containing PCBs (Kouznetsova, 2007), with the likeliest exposure pathway in all of these studies being inhalation. Indeed, human and animal studies confirm that inhalation is a major exposure pathway for PCBs and leads to a greater uptake of PCBs than ingestion (Currado, 1998 & Casey, 1999). During animal testing, inhalation of PCBs caused multiple system disturbances including “significant serum thyroid hormone elevation” and “[h]istopathologic changes … in the urinary bladder, thymus, and the thyroid” (Casey, 1999).

Studies of children and newborns indicate that they are more sensitive to PCBs than are adults. A study of Dutch newborns showed that babies with higher prenatal PCB exposures had reduced immune response after vaccination for measles, mumps and rubella. They also showed altered lymphocyte distributions, decreased wheeze, and increased otitis media (Weisglas-Kuperus, 2000, 2004). A similar study of children living in the Faroe Islands where the diet includes PCB-contaminated whale blubber showed decreased antibody response after vaccination against tetanus and diphtheria. This effect was associated both with the concentrations of PCBs in their mothers’ blood during pregnancy and milk soon after birth, and in the children’s own blood at the time of the study (Heilmann, 2006). Growth deficits were seen among infants born in eastern Slovakia, where a chemical manufacturing plant produced PCBs until 1985 (Hertz-Picciotto, 2003), specifically lower thymic index, which is an estimate of the volume of the thymus, an organ that produces t-lymphocytes (T-cells, a critical part of the immune system, Park, 2008). There is also recent evidence that even low level prenatal exposure to PCBs affects thyroid hormone homeostasis (Chevrier, 2007).
There are a number of studies suggesting that prenatal exposure to PCBs affects in utero and postnatal growth. A recent investigation (Lamb, 2006) suggested that prenatal exposure to PCBs may affect growth, especially in girls. These investigators found evidence that the ortho-substituted (non-coplanar) PCBs were important determinants of the effect on growth. Notably, these are the PCB congeners that do not resemble dioxin structurally, so the conventional risk assessment approach of assigning a toxicity equivalence factor (TEF) based upon dioxin-like activity would not be appropriate here.

A number of investigators have reported associations between higher incidence of behavioral disorders and lower IQ scores in children (for example, Stewart 2008). Sagiv (2008) reported associations between prenatal PCB and p,p-DDE exposures and poor attention in early infancy, including alertness, quality of alert responsiveness, and cost of attention. Recently-published results show an association between low-level prenatal exposure to organochlorine compounds including PCBs and ADHD-like behaviors in children (Sagiv, 2010). Studies have also shown attentional deficits in adults who work in buildings in which window caulk is contaminated with PCBs (Peper, 2005).

In short, a substantial and increasing body of evidence links low levels of environmental PCB exposure to harm to human health and, in particular, children’s health.
Work Cited


Kouznetsova, Maria, et al., 2007. Increased Rate of Hospitalization for Diabetes and Residential Proximity of Hazardous Waste Sites, Environmental Health Perspectives 115 (1).


Ma, Jing et al., 2007. Asthma and infectious respiratory disease in children – correlation to residence near hazardous waste sites, Pediatric Respiratory Reviews 8, 292–298.


