

# The Problem of PCBs in Schools



*Children are mandated to spend 6 to 8 hours a day in a school environment. They have the right to learn in a toxic-free environment.*

The Center for Health, Environment, and Justice (CHEJ) in response to a recent outcry for information on polychlorinated biphenyls (PCBs) in school caulking and fluorescent light fixtures has developed three fact sheets: The Problem of PCBs in Schools; Health Effects of PCBs; and Solutions to Remove School Lights Containing PCBs. This fact sheet provides an overview of the problem of PCBs in schools.

## **PCBs Discovered in New York City Schools**

In 2008, The *New York Daily News* printed a series of articles about PCBs that were detected in the window sill and door frame caulking in New York City (NYC) public school buildings. This led to a public campaign demanding a cleanup and testing of other schools.

In 2010, NYC entered into a consent agreement with the Environmental Protection Agency (EPA) to conduct pilot

studies on five schools to measure the levels of PCB in dust, air and soil. The test results were astonishing. Extremely high levels of PCBs were found. The levels of PCBs in the air in school classrooms were above the federal standard of 50 parts per million (ppm). The original source was thought to be caulking, but once the city removed the caulking, elevated levels of PCBs in indoor air still existed. Additional testing by EPA uncovered the source of PCBs in the air – high levels of PCBs in the oil inside light ballasts of old fluorescent light fixtures. These light ballasts are under a metal cover plate and are used to regulate the current gas flow in fluorescent lights. PCBs were used to prevent the ballast from overheating, especially if the unit fails. Excessive heat can melt or burn the metal unit, creating a characteristic foul odor. It can also create a puncture or other damage to ballasts that causes the PCB oily tar-like substance to evaporate into the air or leak onto floors, desks and chairs. All ballasts manufactured through 1979 contain PCBs. So, any school in America built before 1979 may

contain PCB-contaminated light fixtures, unless they have been replaced.

The light fixtures in the five NYC schools were quickly replaced, but the same cannot be said for other schools in the city. City Council hearings were held in March 2011 and dozens of parents and community leaders demanded testing and timely removal in all the city schools. The city's Department of Education proposed a remediation plan to have old fluorescent light fixtures replaced with energy efficient fixtures in over 770 schools over the next 10 years. Hundreds of parents, teachers unions, health and environmental groups strongly opposed the lengthy 10 year timetable and urged the City to replace the toxic light fixtures in two years due to the significant threat of exposure to PCBs for children and school personnel. When the City refused to change their plan, the parents felt their voices were not being heard so they decided to sue. A lawsuit was filed in July 2011 by the NY Lawyers for the Public Interest on behalf of New York Communities for Change alleging that the city's plan to replace the light fixtures over a period of 10 years puts children at risk and violates the federal Toxic Substances Control Act. New York Communities for Change is a coalition of working families in low and moderate income communities fighting for social and economic justice.

*“Ten years is far too long to wait, especially when the health and well-being of our children are concerned. It is time for the City to put forward an aggressive plan to remediate PCB contamination in our public school buildings, rather than use cost concerns to delay cleanup. The City must not put a price on the safety of our public school students and employees.”*  
Bronx Borough President Ruben Diaz, Jr.

### **What Are PCBs?**

Polychlorinated biphenyls (PCBs) are a group of man-made chemicals once used as coolants and insulating fluids in electrical capacitors, transformers, and fluorescent lights. They were also used in paint, cement, caulking, adhesives, and wood floor finishes. Although PCBs were banned by Congress in 1979 due to its

***One of the greatest concern in a school setting is that PCBs cause a reduction in the ability of a child to learn and remember.***

toxicity to the environment and humans, it is a highly persistent compound that degrades very slowly and is still prevalent in our environment today. PCBs can cause a wide range of adverse health effects including skin irritation, reproductive and developmental effects, immune effects, liver damage and cancer.

### **How Big is the Problem ?**

According to the National Center for Education Statistics, the average age of public schools in our country is 40 years old which means they were built in the early 1970's. Also, approximately 51 percent of American public schools are planning on at least one major repair, renovation, or replacement of a building feature. Since this data was released in 1999, school districts' budgets have been cut drastically and plans for many repairs or renovations have been put on hold. So, it is very likely that there are thousands of schools across America that have old lighting fixtures and caulking that contain PCBs, many of which could be in disrepair or already leaking PCBs into classrooms.

The truth is we do not know how big the problem is. There is no national database, agency or institution that tracks the age of individual schools across the country. Although this fact sheet focuses on schools, PCB-contaminated light ballasts are a problem for all buildings that were built prior to 1979 and have not undergone lighting renovations .

### **Is My Child's School Affected?**

*Was your child's school built prior to 1979?*

- To learn if your child's school could be affected by PCB's, contact the school principal or local school district to inquire about the age of the school and if it has undergone lighting or caulking replacement renovations.

*“My daughters don’t need to absorb PCBs into their systems right now let alone be exposed for the next 10 years, particularly when exposure during reproductive years is particularly dangerous. The city has left us no choice but to sue to get these dangerous light fixtures out now.”*

*“Brenda Riley, NY Communities for Change”*

- If the school building was built *prior to 1979*, it could have caulking and fluorescent light fixtures that contain PCBs. Find out if caulking around window sills and doors and light fixtures have been removed or replaced after 1979.
- If caulking and light fixtures have *not* been replaced, contact the school’s principal to request timely replacement of the PCB contaminated light fixtures and caulking, and provide them with CHEJ’s packet of fact sheets and information from EPA’s website (see Resource List).

*EPA has also seen evidence of leaking PCBs in light ballasts in schools in Oregon, North Dakota, and Massachusetts.*

## Resources

### CHEJ Resources

- CHEJ's Childproofing Our Communities campaign webpage provides more information on children's environmental health issues. <http://chej.org/campaigns/childproofing/>
- CHEJ's Childproofing Our Communities *Back to School Environmental Checklist* helps you to assess your school's environment. <http://chej.org/campaigns/childproofing/resources/back-to-school-environmental-checklist/>
- CHEJ's PCB's In Schools webpage provides information about the problem of PCBs in schools, the health effects of PCBs, and how you can take action against this potential problem in a school environment. <http://chej.org/campaigns/childproofing/projects/pcbs-in-schools/>

### EPA Resources

- EPA's webpage on *PCBs in Caulk in Older Buildings* is a resource for parents, students, and staff to learn more about PCBs in caulk and how to deal with problem. <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/caulk/index.htm>
- EPA's guide on *Proper Maintenance, Removal, and Disposal of PCB-Containing Fluorescent Light Ballasts: A Guide for School Administrators and Maintenance Personnel* is a resource for parents, students, and staff to learn more about PCBs in light fixtures and how to deal with problem. <http://www.epa.gov/osw/hazard/tsd/pcbs/pubs/ballasts.htm>
- EPA Region 2's PowerPoint presentation: *PCBs in Lighting Fixtures in NYC Schools* gives an overview of the problem of PCBs in NYC public schools, the health effects of PCBs, and how schools can utilize lighting energy efficiency programs to address the situation. State. The power point presentation can be used to educate others about potential problems in your school. <http://chej.org/campaigns/childproofing/resources/conference-calls/nejac-pcb-presentation-5-10-11/>
- In addition, EPA Region 2 has a power point presentation specific for New York State that provides more details on health effects of PCBs, and how schools can address the problem. [http://www.cleanairinfo.com/energyefficiencytraining/ny\\_info.html](http://www.cleanairinfo.com/energyefficiencytraining/ny_info.html)
- EPA's fact sheet on *PCBs in Schools* is a tool that school officials can use to educate staff and children about PCBs. There is a checklist and also a coloring exercise to teach kids how to identify where PCBs maybe located. <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/caulk/caulkschoolkit.pdf>

### Other Resources

- New York Lawyers for the Public Interest has information on what groups in New York City are doing to address PCB contamination problems in NYC public schools. <http://www.nylpi.org/main.cfm?actionId=globalShowStaticContent&screenKey=cmpTemplate&htmlKey=912010&s=NYLPI>
- New York Communities for Change has information on what concerned parents and community activists in New York City are doing to address PCB contamination problems in NYC public schools. <http://www.nycommunities.org/node/790>

- A New Jersey Department of Education PCB memorandum alerts school districts to the PCB threat in schools and advises schools on how to address the problem. The memo could be shared with your local school district as an example of what other states are doing to address problem. <http://chej.org/wp-content/uploads/NJDOE-PCB-memorandum-6-1-11.pdf>

***CHEJ works with communities on environmental health and justice issues across the country. If you are dealing with a PCB contamination issue in your area or need assistance with approaching local officials, contact CHEJ at 703-237-2249 or [chej@chej.org](mailto:chej@chej.org).***