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Mandating Testing for PCBs in Schools

- Did you know that schools built between the 1930s to 1980 can have hazardous levels of PCBs in the window and masonry caulking?
- Did you know that it is illegal to have PCB-laden caulk?
- Did you know that PCBs in window caulking can volatilize into your child's classroom?
- Did you know that in utero exposure to polychlorinated biphenyls in concentrations slightly higher than those in the general population can have a long-term impact on intellectual function?
- Did you know that studies have found elevated blood levels of low chlorinated PCBs in children and teachers attending schools with PCBs window caulking?
- Did you know that PCBs can leak out of joint sealant and contaminate the surrounding soil and indoor air?
- Did you know that the PCB contaminated soil at the French Hill Elementary School in Yorktown Heights, New York was due to window caulking?
- Did you know that as a result of PCBs in the window caulking, the Yorktown Central School District, New York removed 40 feet of PCBs contaminated soil extending out from the eastern side of the school building, and 10 feet of soil extending out from the rest of the building?
- Did you know that the masonry caulking on the front columns at the French Hill Elementary School in Yorktown Heights had 60,000 ppm of PCBs (equivalent to 6.0% PCBs)?
- Did you know that PCBs had migrated/leached to the surface of masonry caulking? The wipe sample of the caulk yielded 22,700 ug/100 cm².
- Did you know that a piece of window caulking from the French Hill Elementary School contained 277,600 ppm of PCBs?
- Did you know that a building at the University of Rhode Island was contaminated due to PCBs in the window caulking and other building materials?
- Did you know that SUNY Oswego has PCBs contaminated soil?
- Did you know that Mahar Hall at SUNY Oswego has PCB-laden window caulk?
- Did you know that New Bedford High School has PCB contaminated caulk and soil?
- Did you know that the University of Massachusetts at Amherst has PCB contaminated caulk and soil?

- Did you know that the library at the University of Massachusetts at Amherst had PCB contaminated indoor air?
- Did you know that construction workers who handle caulking material generally have no knowledge of its PCBs content and may contaminate themselves and your child during the removal process?
- Did you know that PCB-laden caulk from a building in Europe had contaminated the soil 10 meters out?
- Did you know that the Stockholm Convention requires governments to take steps to reduce the release of PCBs with the goal of their minimization and, where feasible, ultimate elimination?
- Did you know that PCBs can also be absorbed through the skin following contact with contaminated caulking, equipment, water, or soil?
- Did you know that an important source of PCBs in contemporary outdoor air is the ventilation of contaminated indoor air?
- Did you know that the standard procedure to carry out sanitation of PCB-containing sealants is to carefully remove the sealant with a knife and then grind 1-2 mm in the concrete?
- Did you know about the EPA Draft Approval and Denver Water Plan to Encapsulate PCB Contaminated Concrete at the Martson Basin #4?
- **Did you know that schools are *not* mandated to test for PCBs in caulking?**

This protocol has been developed in consultation with the New York State 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 ... [NYS Education Department Facilities Planning June 2007](#)

The standard procedure to carry out sanitation of PCB containing sealants is carefully remove the sealant with a knife and then grind 1-2 mm in the concrete... [Research and Development in Sanitation Technology for PCB-containing Sealants](#)

In late June, the EPA approved a \$2 million dollar cleanup project that will decontaminate the buildings outdoor caulking, replace contaminated carpeting in the buildings library, and remove PCBs that have seeped into the asphalt and soil below the tower ... [Daily New Hampshire Gazette July 6, 2007](#)

Environmental health researchers at Harvard School of Public Health have identified caulking and sealing materials as an unrecognized and possibly widespread source of PCB contamination in schools and buildings constructed in the 1960s and 1970s ... [New York State Education Department Office of Facilities Planning Newsletter #56 Oct. 2004 *](#)

Studies of teachers in schools containing PCB caulking concluded that there was heavy indoor air contamination with low chlorinated PCBs, causing a significant increase of PCB blood levels... [Dr. Bob Herrick of the Harvard School of Public Health Feb. 2005](#)

Investigations since the early 1990s have provided evidence that occupancy of buildings containing PCB-rich construction materials can result in elevated serum PCB levels ... [Summary of studies on occupants of PCB-containing buildings by Dr. Bob Herrick of the Harvard School of Public Health 2005](#)

Future reductions in PCB concentrations in outdoor air and ultimately human exposure best achieved by

action to remove remaining sources of PCBs from existing structures ... [Environmental Science & Technology 2007](#)

Assemblyman Willis Stephens, R- Southeast, plans to introduce a bill to require every district to test a sample of caulk in buildings constructed or substantially refurbished before January 1978. The state would cover the cost of the testing which would be about \$60 per sample, his legislative director said. Stephens said this legislation would be a first step in assessing the magnitude of the problem ... [Journal News, Nov. 27, 2005](#)

"Besides volatilization into air, joint sealants containing PCB must be considered a relevant source of emissions of PCB into soil and water, as well" ... [Environmental Science & Technology 2005](#) *

"Studies of serum PCB levels, the elevations in PCB 28, 52 and 101 comparing students, and residents of PCB-containing buildings with controls are not small, in fact there are order of magnitude differences, up to 30 fold elevations. And there is evidence that these non-dioxin like congeners have greater neurotoxicity than the more highly chlorinated congeners" ... Dr. Bob Herrick of the Harvard School of Public Health

"A spokesman for the State Department of Health said the cleanup was the first the agency was aware of involving PCB contamination from caulk" ... [New York Times July 4, 2005](#) (If there is an advertisement, click Skip Ad to see article)

"This is something just coming on the radar screen," said Rich Cahill, a spokesman for the United States Environmental Protection Agency in the New York region ... [New York Times July 4, 2005](#) (If there is an advertisement, click Skip Ad to see article)

"PCBs found in elementary school soil"... [Westchester Journal News Saturday January 29, 2005](#)

"PCBs in window caulking in schools with subsequent contamination of the soils around schools, is an open invitation for exposure to children" ... [David Carpenter M.D. March 2004](#) *

The University of Rhode closed the Chafee Social Science building, the largest facility on the Kingston Campus, in December 2000 based on test results that show elevated levels of PCBs (polychlorinated biphenyls) in soil outside and in sections inside of the high rise office building ... [University of Rhode Island News Bureau](#)

Mahar Hall at SUNY Oswego has tested positive for PCB material in caulking ... [State University Construction Fund](#).

A couple of caveats, no one is exposed to just a few of the congeners, since they are all present in the Aroclor mixtures, which may have hundreds of congeners in the mix. Also, there is much more tox info on the PCB congeners that resemble 2,3,7,8 TCDD most closely, but the lack of info on some of the others (especially the less chlorinated, more volatile congeners) does not mean that they are less toxic, it may just be that they have not yet been as extensively tested as some of the others... *Dr. Bob Herrick of the Harvard School of Public Health*

In buildings using PCB-contaminated sealants, levels up to 7500 ng/m³ have been found (corresponding to a daily dose of 2.5 ug/kg bw) ... Mitigation measures should be undertaken as soon as possible to reduce the level to 300 ng/m³ ... [Air Quality Guidelines WHO Regional Office for Europe, Copenhagen, Denmark 2000, page 14](#)

Because of the potential importance of the indirect contribution of PCBs in air to total human exposure, it is important to control known sources as well as to identify new sources ... [Air Quality Guidelines WHO Regional Office for Europe, Copenhagen, Denmark 2000, page 16](#)

It is clear that situations exist where part of the general population is exposed to significantly elevated levels of lower chlorinated NDL (non dioxin like) PCB, in indoor air ... [The EFSA Journal \(2005\) page 51](#)

The levels of PCB 28 and 52 were considerably higher in people living in contaminated flats compared to those from control flats ... [The EFSA Journal \(2005\) page 51](#)

Caulk containing PCBs found in local buildings... [KIROTV Seattle, Washington 2004](#)

PCB contamination has been discovered in caulking at an elementary school. Improper cleanup has resulted in soil contamination around the facility ... [NYS Education Department Newsletter August 2005](#)

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Click on link to see more photos. [Photos of Caulk](#)

The identification of individuals submitting photos and sampling will remain anonymous.

	PCB contaminated soil due to PCB-laden window caulking at French Hill Elementary School in Yorktown Heights, NY Approximately 38,000 square feet of soil excavated. Soil delineation and clean-up ordered by Board of Health. Click on link to see more photos. Photos of Caulk
	PCB contaminated masonry caulking on front column at the French Hill Elementary School in Yorktown Heights, N.Y. <i>Note: Chalk writing by children on PCB-laden caulk.</i> Caulk contained 60,000 ppm of PCB (Aroclor 1254 and 1260) Caulk is 6.0% PCB Wipe sample of caulk yielded 22,700 ug/100 cm². (Magnitude of PCBs justified encapsulation) Consultant never saw such high wipe readings. PCBs migrated/ leached to the top surface of caulk. Link to French Hill Final PCB Report Click on link to see more photos. Photos of Caulk
	Medford High School, Medford MA with PCB-laden caulk. Caulk has 5,970 ppm of PCB (Aroclor 1254) Is the soil contaminated with hazardous levels of PCB? Are the students and staff breathing hazardous levels of PCB? Click on link to see more photos. Photos of Caulk

	Locke Middle School in Billerica, MA. with PCB-laden caulk. Caulk has 5,010 ppm of PCB (Aroclor 1254) Is the soil contaminated with hazardous levels of PCB? Are the students and staff breathing hazardous levels of PCB? Click on link to see more photos. Photos of Caulk <i>Photo and sampling information taken by anonymous individual.</i>
	PCB-laden masonry caulk falling off Locke Middle School in Billerica, MA. Caulk has 5,010 ppm of PCB (Aroclor 1254) Is the soil being contaminated with hazardous levels of PCB due to erosion? Click on link to see more photos. Photos of Caulk
	PCB-laden masonry caulk breaking down Locke Middle School, Billerica MA Caulk has 5,010 ppm of PCB (Aroclor 1254) Is the masonry contaminated with hazardous levels of PCB? Click on link to see more photos. Photos of Caulk
	PCB-laden caulk contaminating the soil at the French Hill Elementary School, Yorktown Heights, NY. Click on link to see more photos. Photos of Caulk

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