



DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
AGENCY OF EDUCATION  
DEPARTMENT OF HEALTH

August 29, 2014

**RE: Indoor Air Sampling for PCBs in Vermont Schools**

To School Administrators:

Over the past year, the Department of Environmental Conservation (DEC), the Agency of Education, and the Department of Health collaborated on a project to sample indoor air for the presence of polychlorinated biphenyls (PCBs) at four Vermont schools. This letter summarizes the project and provides recommendations.

PCBs are a group of manmade chemicals that were commonly used in building materials such as caulk, paint, glues, plastics, fluorescent lighting ballasts, transformers and capacitors. Schools built from 1950 to 1978 may have building materials and electrical products that contain PCBs. PCBs may harm the immune, reproductive, nervous and endocrine systems, and may cause cancer. The potential for health effects from PCBs, as with other chemicals, depends on how much, how often, and for a how long a person is exposed.

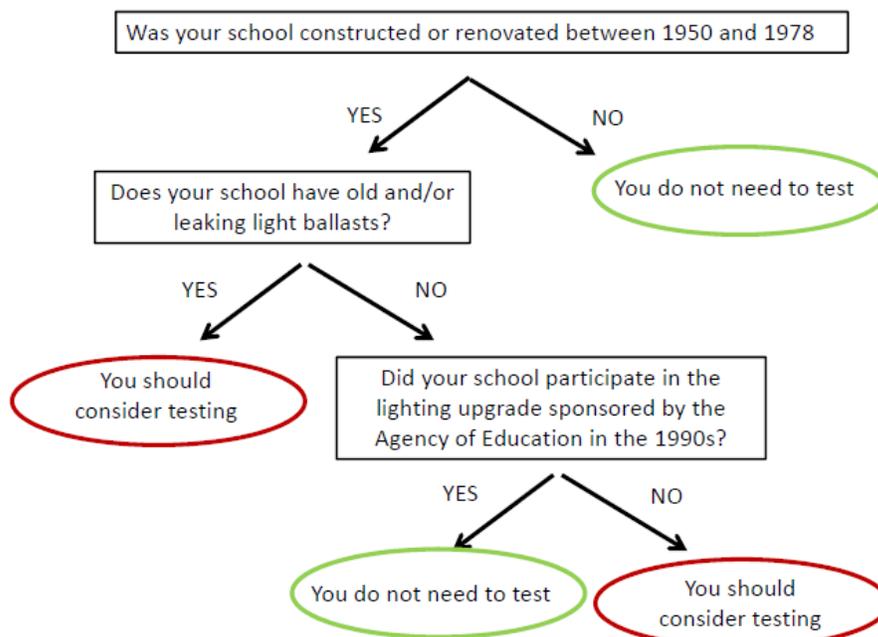
In recent years, PCBs were discovered in indoor air at levels of concern at schools in New York City, Connecticut and Massachusetts. The discovery of PCBs in indoor air at these schools led us to question whether this could happen in Vermont schools. The Agency of Education provided contact information for schools constructed during the 1950s through 1978. DEC oversaw the collection and analysis of samples by a contractor with indoor air sampling expertise. The US Environmental Protection Agency (EPA) has set a level for PCBs in indoor air for elementary schools at 300 ng/m<sup>3</sup>. The Health Department calculated a much lower level using different methods than those used by EPA. The level that Health calculated is 15 ng/m<sup>3</sup>. In this testing project, the Health Department asked to be informed of any detections above that level.

Between August 2013 and February 2014, four Vermont schools were sampled for PCBs in indoor air, at an average cost of approximately \$6,000 per school. The four schools were built during the time period of concern, and ranged from a large middle/elementary school to a small elementary school.

School	Number of samples	Number of Detections	
		above 15 ng/m <sup>3</sup>	above 300 ng/m <sup>3</sup>
Barre Town Middle/Elementary	23	3	0
Holland Elementary	10	0	0
Champlain Elementary	20	4	0
Mt. Anthony Union High	24	0	0

There were detections of PCBs in two of the schools. Both were given recommendations to examine the lighting fixtures in the areas where PCBs were detected, replace any older units or visibly leaking units, and wet-wash walls and other hard surfaces. No further action was needed at these schools because the levels of PCBs detected are not expected to contribute very much to an individual's overall exposure. The schools tested were part of a lighting fixture upgrade sponsored by the Agency of Education in the 1990s. This upgrade may have had a secondary benefit by removing the old ballasts, which are potential sources of PCBs in schools.

Schools considering whether or not to test for PCBs in indoor air should consider the following questions:



If you decide to have indoor air at your school sampled for PCBs, contact DEC for a list of qualified contractors. If sampling detects PCBs in indoor air, contact DEC and VDH for

information about possible remediation and health risks (respectively). Unfortunately, there is no state or federal funding available at this time to assist with sampling and/or remediation.

**If you have questions** about this project, or sampling indoor air for PCBs, contact Marc Roy (DEC) at [marc.roy@state.vt.us](mailto:marc.roy@state.vt.us) or 802-522-0275. If you have questions about the health risks of PCBs, contact Sarah Vose, PhD (Health) at [sarah.vose@state.vt.us](mailto:sarah.vose@state.vt.us) or 800-439-8550.

Link to information on PCBs in New York City Schools:

<http://www.nycsca.org/Community/Programs/EPA-NYC-PCB/Pages/default.aspx>

Link to the sampling reports and letters, and PCB Fact Sheet:

<http://www.anr.state.vt.us/dec/wastediv/spills/SchPCB.html>