

An aerial photograph of a residential neighborhood in winter, with snow covering the ground and rooftops. A large teal semi-transparent rectangle is overlaid on the right side of the image, containing white text. The text reads: "Implications of PCB Testing & Healthy Learning Environments". Below this, in a smaller font, it says "Vermont Legislators Presentation".

Implications of PCB Testing & Healthy Learning Environments

Vermont Legislators Presentation

TOPICS FOR DISCUSSION

01

What are PCBs?

02

**Guidance for airborne levels
of PCBs**

03

WCSU Response

04

School Buildings in Crisis

What are PCBs

PCBs are a class of compounds that had numerous commercial uses in the U.S. from 1929 until their prohibition in 1979. Although their most common application was as an insulating fluid in transformers, capacitors, and other electric equipment, PCBs were also used as a plasticizer in open systems that included numerous building materials.

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Scope of PCB Hazard

In the United States, it is likely widespread, potentially affecting up to 30% of the school-aged population, but it is difficult to quantify the exposure.

The ABCs of PCBs (Markey Report 2016)

PCBs in schools over time

PCB concentrations in buildings built during the PCB era (1950-1979) have increased levels of airborne PCBs. Until they are removed, mixtures used in school building materials will continue to degas PCBs into the room air.

Environ. Sci. Technol. 2022, 56, 16544–16545

PCBs Health Concerns

Decades of scientific research have demonstrated that PCBs can cause a variety of harmful health effects, including cancerous and non cancerous effects.

The ABCs of PCBs (Markey Report 2016)
<https://www.healthvermont.gov/environment/chemicals/polychlorinated-biphenyls-pcbs#health-effects>

History in VT of PCBs

Burlington High School
Tests for PCBs

September 2020

Vermont passes Act
74

June 2021

VT Dept of Health
Memo on PCBs in
Schools

November 2021

AOE Releases
Operational Guidance

December 2022

Guidance levels for airborne PCBs in Schools

<p><u>Screening Value</u> (Vermont Department of Health - October 2020)</p>	<p>15 ng / m³</p>
<p><u>School Action Levels</u> (Vermont Department of Health - November 2021)</p>	<p>30 ng / m³ for Pre K students</p> <p>60 ng / m³ for K - 6th grade students</p> <p>100 ng / m³ for 7th grade to adult</p>
<p><u>Immediate Action Levels</u> (Vermont Agency of Education - December 2022)</p> <p>If PCB levels in indoor air are at or exceed this value for a particular grade span, the room or space should not be used until mitigation measures are in place to reduce the amount of PCBs in indoor air.</p>	<p>90 ng / m³ for Pre K students</p> <p>180 ng / m³ for K - 6th grade students</p> <p>300 ng / m³ for 7th grade to adult</p>
<p><u>Exposure Levels for Evaluating PCBs in School Indoor Air</u> (EPA)</p>	<p>200 ng / m³ for Pre K and K students</p> <p>300 ng / m³ for Elementary School</p> <p>500 ng / m³ for Middle School - adult</p>

Context

- ❖ The Vermont Department of Health used “reasonable maximum exposure” to calculate their SALs. The EPA used “central tendency” exposure.
- ❖ For adults, the SAL “may present an increased lifetime cancer risk of approximately 6 extra cases of cancer per million people exposed”.
- ❖ PCB levels in schools have exceeded the levels measured immediately adjacent to New Bedford Harbour (38 ng/m^3), one of the largest PCB Superfund sites in the country



What can be done in our buildings now

- ❖ Improve ventilation
 - WES replace air handling unit within the next year
 - MS/HS new air handling units
- ❖ Identify possible sources of PCB's
 - Light ballasts have been removed in all of our schools
 - Replaced some windows at WES
 - Seal potential PCB containing caulk
- ❖ Review current cleaning protocols
- ❖ Clean ductwork





Not just about PCBs: The Health of our Vermont Schools is the issue.

- ❖ WCSU schools
 - One school has a failing sewer system
 - Lost heat in multiple buildings this school year
 - One school has a failing heating system
- ❖ All schools built prior to 1980 have questionable air quality
 - Air exchange systems were antiquated
 - Air ducts that have not been maintained
 - Building materials used are shown to have significant impact on student and staff health, including PCBs and Radon

Any one of these issues jeopardizes the physical health of our students and could result in a school closing



**One toilet flush
away from
closing a school
of 450 students**



What got us to this point?

- ❖ Lack of State funding
 - In 2007, Vermont put a moratorium on state aid for school building construction
 - In 2017, the WCSU Board identified the need for a new middle and high school building
 - In 2023, the building still has questionable septic, water and heating systems even though we continue to send money to the Ed. Fund
 - District is having to “fundraise” to build a public school
- ❖ Pandemic highlighted the health issues in our schools
- ❖ ESSER funding began the work of remediating individual buildings but did not address ALL the needs
- ❖ Reflects a broken system of school funding and dire need for new school construction

State Recommendations for funding of PCB testing and remediation

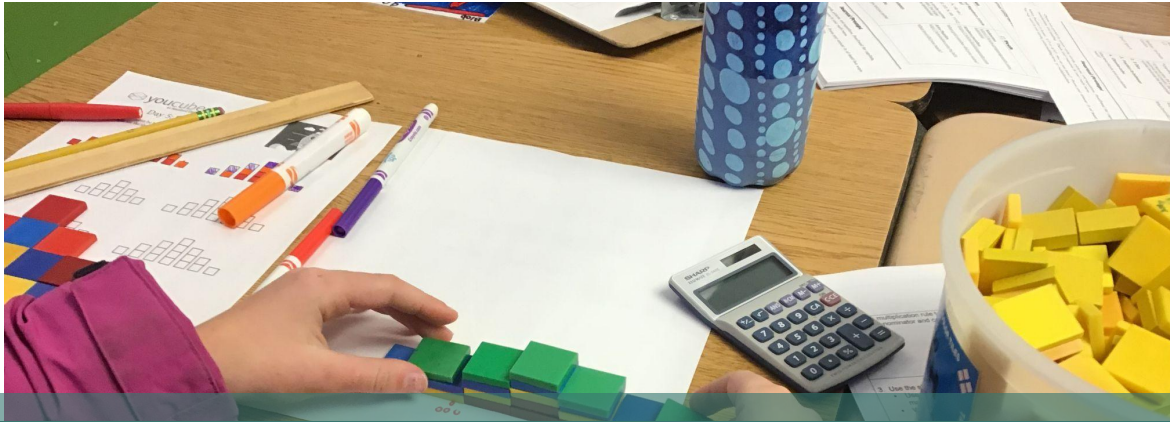
Funding

The following section outlines cost responsibilities for PCB sampling, mitigation and remediation, preliminary funding for source investigation and remediation.

Overview of Cost Responsibilities

Costs for various phases of the school PCB testing program will be borne as follows:

- **Pre-sampling and Indoor Air Quality testing** – DEC
- **Sampling to identify building material sources (workplan, sampling, final report)** - 80/20 cost share for DEC-approved activities between AOE (80%) and SU/SD (20%)
- **Environmental Corrective Action Alternatives (ECAA) report and any pilot testing** - 80/20 cost share for DEC-approved activities between AOE (80%) and SU/SD (20%)
- **Corrective Action Plan development** 80/20 cost share for DEC-approved activities between AOE (80%) and SU/SD (20%)
- **Mitigation activities** (excluding supplies provided by the state) - 80/20 cost share for DEC-approved activities between AOE (80%) and SU/SD (20%)
- **Quarterly Indoor Air sampling** -- 80/20 cost share for DEC-approved activities between AOE (80%) and SU/SD (20%)
- **Mitigation supplies provided by the state** – AOE/DEC
- **Remediation of PCBs, final reporting** – SU/SD (until further legislative action in 2023)
- **Additional IAQ testing following remediation** – SU/SD (until further legislative action in 2023)



Current AOE Recommendation for costs associated with PCBs

- Remediation plans created by a contracted engineer
- Must be approved by DEC
- District must comply with plan requirements and bear the burden for 20% of associated costs

Estabrook School in Lexington, MA: [Discovery of PCBs, failed remediation, to a new school](#)

What we know

Our message today is:

Students deserve healthy learning environments

Our students cannot afford another interruption to their learning, schools cannot close again

School facility funding must be addressed immediately





What other information do you need to respond to your questions and those of your community?

QUESTIONS: