

# State of Vermont PCBs Testing Program in Vermont Schools an Overview

This overview is meant to cover the timeframe from the passage of the legislative mandate to conduct indoor air testing in Vermont schools (July 2021) through to January 2025.

High level elements of the PCB program are provided below and expanded upon within the document.

- Polychlorinated biphenyls (PCBs) are human-made chemicals that were commonly used in building materials and electrical equipment built or manufactured before 1980. Monsanto was the sole manufacturer of PCBs in the United States. The U.S. Environmental Protection Agency (EPA) banned manufacturing and certain uses of PCBs in 1979.
- PCBs can cause serious health problems.
  - The potential for health effects from PCBs, as with other chemicals, depends on how much, how often, and how long someone is exposed to them. Numerous studies in both humans and animals have shown that exposure to.
  - PCBs can affect the nervous, immune, reproductive and endocrine (hormone) systems.
  - PCBs are also classified as human carcinogens. This means that exposure to PCBs can cause cancer in humans.
- High levels of PCBs in the indoor air of schools represent the biggest exposure to PCBs for students and staff.
  - **If the level in air is the same in a school and a home, then the risk is the same. However, [studies have shown](#) that high levels of PCBs in the indoor air of schools represent the biggest exposure for students and staff. In other words, when PCBs are present at high levels this is likely a bigger source of PCB exposure than diet or background.**
  - PCB levels in the indoor air of schools should be kept as low as possible
- Schools renovated or built before 1980 have a high likelihood of PCBs being present in their building materials and the indoor air.

August 2020 BHS PCB impacts were identified.

- 2021, [Act 74](#) required all public and approved and recognized independent schools built or renovated before 1980 to test their indoor air for PCBs. The original Act passed in 2021 required that all testing be completed by July 1, 2024. This date was extended to 2025 and now to [2027](#).
- There are 324 schools in Vermont that were built or renovated before 1980.
- The Vermont Department of Environmental Conservation (DEC) has the authority to require schools to address releases of PCBs to indoor air and reduce concentrations to health protective levels established by the Vermont Department of Health.

- Under [Act 178](#), Section 3, \$13.5M was set aside for funding the investigation, testing, assessment, remediation and removal of PCBs in schools statewide. \$16M was set aside for Burlington High School (reminder that this money was used for disposal of PCBs).
- Current sampling efforts have identified 46 schools where PCBs in indoor air have been detected above health protective levels and assessment and mitigation activities are required.
- There is no question that PCBs are toxic chemicals.
- There is no question that it is time-consuming and costly to remove PCBs from schools.
- The science on these chemicals is clear; PCBs pose long-lasting health risks to students and staff and the work under this sampling program helps to ensure that PCBs can be reduced and removed in Vermont schools.
- Process of PCB sampling – inventory, indoor air sampling, source identification
- School action levels (SAL) are based on the amount PCBs found in the indoor air at a school. The State of Vermont has established three different action levels for schools, depending on the age of the students. Younger children tend to have more exposure to PCBs from their diet, so the levels for younger children are more stringent than those for older children and staff. The three school action levels are:
  - 30 nanograms per cubic meter (ng/m<sup>3</sup>) for Pre-K
  - 60 ng/m<sup>3</sup> for kindergarten to 6th grade
  - 100 ng/m<sup>3</sup> for 7th grade to adult
- The immediate action levels (IAL) are three times higher than the school action levels. Since these levels pose a greater exposure risk, no room at or above these levels will be able to be used. The three immediate action levels are:
  - 90 nanograms per cubic meter (ng/m<sup>3</sup>) for Pre-K
  - 180 ng/m<sup>3</sup> for kindergarten to 6th grade
  - 300 ng/m<sup>3</sup> for 7th grade to adult
- 102 out of 156 schools tested have PCB results below the SAL
- 46 schools have indoor air results above the Vermont School Action Level (SAL) (31% of known schools)
- 20 schools have indoor air results above the Immediate Action Level (IAL) (14% of known schools)
- 5,963 individual indoor air results have been collected between June 2021 and January 2025. Detectable PCB indoor air levels range from 1.4 – 3,200 ng/m<sup>3</sup>.
- Discuss cleanups
- To date, no schools have closed due to elevated concentrations of PCBs in indoor air quality. DEC and Health have worked with schools to balance keeping students in school while maintaining a healthy learning environment.
- The table below indicates how school operations were impacted by PCB air concentrations.

<b>Impact to Learning School Operations</b>	<b>Number of Schools</b>	<b>Percent of Schools</b>
Reduced time per week only	2	2%
Some primary spaces not used	14	9%

Reduced time and primary spaces not used	8	5%
No impact	124	84%
Total	148	100%

- Discuss cleanups
- Discuss next steps
  - The Program is currently focused on finalizing the cleanup plans for several schools (NCUHS, GMUHS, SOAR, BFUHS, TVES, Hartford). We are continuing to conduct routine sampling where we can. We are not starting to sample at any new schools.
  - Several schools have elected to continue the sampling process knowing that state funding may not be available. The schools that have chosen to continue are trying to evaluate options for combining schools or want to conduct the work to remove the PCBs that are present in their schools.
  - 56% of schools have started the PCB testing program. Additionally, the first quarterly monitoring, building material sampling, ECAA and CAP phases are currently occurring where PCBs are above the SAL. It is expected that costs of corrective action will be dependent on the corrective action approach chosen. All costs to date have been paid by the State of Vermont.