Executive Summary

Polychlorinated biphenyls (PCBs) are human-made chemicals used in building materials and electrical equipment before 1980 when the U.S. Environmental Protection Agency (EPA) banned manufacturing and certain uses of PCBs. PCBs are categorized as known human carcinogens. Exposure to PCBs have been associated with neurological impairments, including autism and attention deficit and anxiety disorders as well as affects to the nervous, immune, reproductive and endocrine (hormone) systems. Children and adolescents are particularly vulnerable. PCB levels in the indoor air of schools should be kept as low as possible.

Schools renovated or built before 1980 are more likely to have PCBs in their building materials. Caulk, paint, glues, plastics, fluorescent lighting ballasts, transformers and capacitors are examples of products that may contain PCBs.

In 2021, Vermont law Act 74 required all schools built or renovated before 1980 to test their indoor air for PCBs. The Vermont Department of Environmental Conservation (DEC) has the authority to require schools to make fixes that will lower exposure to PCBs, if levels are found at or above the school action level. Under Act 178, Section 3, funds have been set aside for funding the investigation, testing, assessment, remediation and removal of PCBs in schools. In October 2022, the Emergency Board provided authorization to use up to $2.5 million of these funds to support “…immediate action to reduce PCB exposure in school locations where established action levels are exceeded…”

Key Takeaways

Comprehensive testing, coupled with targeted mitigation and remediation work, will help reduce exposure of PCBs to students and staff in the indoor air of schools. Funding is needed to assist schools in undertaking the process to remove these carcinogenic chemicals to ensure they won’t continue to cause impacts to the indoor air at the schools.

- Under Act 74, as many as 365 Vermont public and recognized independent schools are required to conduct indoor air sampling for PCBs; Act 74 provided funding to cover the cost of the initial indoor air testing. DEC is leading this effort.
- In schools where elevated concentrations of PCBs are detected in indoor air, additional assessment will be required. Estimated costs for additional assessment vary widely depending on the extent of
the contamination and ability to readily identify sources. Costs for additional assessment can range from $10,000 to several hundred thousand dollars.

- Estimated costs for cleanup will also vary widely depending on the extent and level of contamination from tens of thousands to millions of dollars.
- Under Act 178, $32 million was set aside in the Education Fund to provide financial assistance for the additional assessment, mitigation, and corrective actions (i.e., remediation and/or removal of PCBs in schools) that will be required.
  - At its October 24, 2022 meeting, the Emergency Board authorized the transfer of $2.5 million from the adjusted education payment appropriation of Sec. B.505 of Act 185 of the 2022 session. Specifically the transfer “…establishes a new appropriation line item for the purposes of supporting immediate action to reduce PCB exposure in school locations where established action levels are exceeded and therefore present a significant health threat, limited to prepurchasing and deploying emergency mitigation supplies and providing cost share to conduct additional investigation and required materials testing to inform permanent remediation.”

- Schools need financial assistance when detectable levels of PCBs are identified in indoor air and additional work is required by DEC.
- Based on early results from the first schools that have been tested, it is unlikely the funding under Act 178 will be sufficient to cover the full cost of this work in every effected school building.
- A process has been developed to access and use these funds that is consistent with how schools normally receive reimbursement for other funded projects through the Agency of Education (AOE)

### Discussion

- The Vermont Department of Health has developed School Action Levels. Results at or above these values necessitate that additional steps are taken. These steps fall into three categories of work:
  - Assessment (taking samples to find the PCB source(s) in the school)
  - Mitigation (taking steps to reduce PCB concentrations in indoor air while trying to address PCB impacts to indoor air)
  - Corrective action (actions taken to remove or mitigate the PCB sources)
- All work conducted must be in compliance with ANR’s Investigation and Remediation of Contaminated Properties Rule (IRule) and must be approved by DEC before any assessment, mitigation or remediation activities occur.
- The proposal to use these funds is to allow for all fundable (or eligible) expenses related to these categories of work at an 80/20 cost share. This approach is consistent with other AOE initiatives.
- Funding will be provided on a first-come, first-served basis.
  - Schools that were identified to have a higher potential of PCB contamination, as well as schools located in disadvantaged communities, as determined by levels of free or reduced cost lunch, have been prioritized and therefore will be earlier in the queue for the available funding.
- Reimbursable costs associated with each activity will not exceed:
  - Assessment and Cleanup Planning: $200,000. This could be increased on a case-by-case basis.
  - Mitigation: $500,000
- Cleanup: $2,000,000
- These maximums for reimbursable costs are based on and consistent with eligible costs for EPA-funded brownfields work

- Eligible costs for each activity are as follows:
  - Assessment and Cleanup Planning: costs associated with complying with the IRule and EPA Code of Federal Regulations
  - Mitigation: costs associated with necessary, immediate or interim actions to reduce indoor air to allowable levels so that students and staff can continue to be in school and including costs related to relocation. Relocation is only an option if no other occupancy options are available.
  - Corrective Action: costs associated with implementing corrective action activities approved by DEC and EPA as described in a Corrective Action Plan (CAP), including costs associated with non-capital improvements where the non-capital improvement is needed to reduce indoor air exceedances (i.e., replacement of gym mats that are emitting PCBs). Disposal and replacement costs must be detailed in the CAP in order to be eligible for reimbursement.

- The process for obtaining reimbursement-based funding through the AOE starts with a scope of work prepared by an environmental consultant that is complaint with the IRule and approved by DEC.
  - DEC will provide AOE with approved costs per activity.
  - AOE will award funds to SU/SDs and independent schools only for those costs in DEC-approved work plans. Reimbursement will follow approval of work completion by DEC.
  - Schools may contract with pre-approved consultants through the BGS contract or by following the state procurement process.

- With respect to the $2.5 million that was authorized by the Emergency Board in October 2022, DEC and AOE are working collaboratively with Vermont Emergency Management to pre-purchase mitigation equipment for schools to access. These funds are also available to provide 80/20 cost share for mitigation costs that schools incur in responding quickly to exceedances of established action levels; as of this report, no schools have accessed this funding.