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PCBs in Schools and Public Buildings

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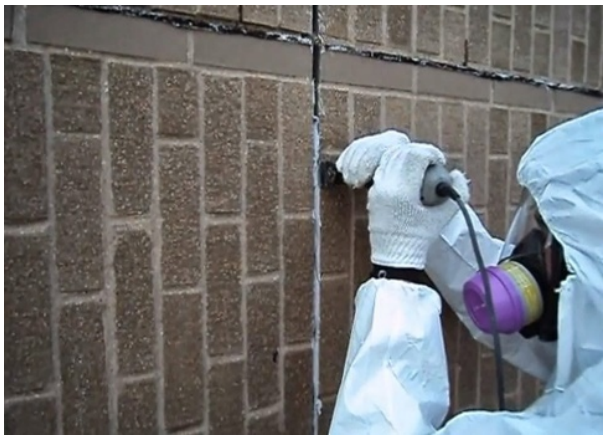
Polychlorinated biphenyls (PCBs) were used in building materials such as caulking and fluorescent light ballasts from approximately 1950 until 1978 when PCB use was banned in the United States. The International Agency for Research on Cancer (IARC) has classified PCBs as a probable human carcinogen and the National Institute for Occupational Safety and Health (NIOSH) has classified PCBs as a potential occupational carcinogen. The identification of PCB-containing building materials in schools and large residential buildings, particularly during renovations, has resulted in an increased focus on appropriate response actions to identify and control exposures to PCBs in buildings. The principle routes of exposure for PCBs from PCB-containing building materials includes inhalation and ingestion. Inhalation occurs by inhaling PCB-contaminated dust and PCB vapors released from the building materials. Ingestion of PCBs is a concern when hands are not washed prior to eating and when children put toys or other items contaminated with PCBs into their mouths. The Environmental Protection Agency (EPA) has issued guidance for schools and public health professionals dealing with PCB-containing building materials.



Identification of PCB-containing building materials is conducted via bulk sample collection of the suspect material, wipe-sample collection for dust on building surfaces possibly contaminated with PCBs and indoor air sampling to determine the presence and/or levels of PCBs in the building environment. Sampling should be conducted by a trained occupational health professional using methods that minimize dust generation and the possible spread of PCB- containing materials disturbed during sampling. If planning a building renovation, PCB sampling affected materials should be an item at the top of your list. Our own experience has found PCB-containing caulking used around windows, doors and in expansion joints in poured concrete structures (not to mention the likelihood of silica as well).

Whether PCB-containing materials have been identified or are suspected to be present, best management practices for minimizing possible exposures to PCBs include the following:

1. Ensure that ventilation systems are operating properly and maintained according to manufacturer instructions and ANSI/ASHRAE standards to prevent the accumulation of PCBs vapors in the building.
2. Clean the interior of schools and buildings frequently using wet methods and vacuums with HEPA filters.
3. Building occupants, students and employees should wash hands regularly and specifically prior to eating to prevent the accidental ingestion of PCB-contaminated dust.
4. Regularly wash children's toys and surfaces in rooms frequented by children in order to remove possible PCB-contaminated dust.

Identified or suspect PCB-containing materials should be inspected regularly to ensure that the materials remain in good condition and are not damaged or generating dust. Periodic wipe and air sampling should be conducted in order to confirm that best management practices are preventing PCBs from contaminating the building interior. PCB-containing materials should be removed from the building when they are impacted by remodel or renovation activities. If PCB- containing materials are creating an exposure hazard to building occupants and removal is not feasible, encapsulate or enclose the materials in order to prevent PCB exposure to building occupants. When work is expected to disturb PCB-containing building materials, those performing the work should:

1. Restrict access to the work area to trained workers only.
2. Wear personal protective equipment such as gloves and respiratory protection in order to reduce risk of exposure to PCBs.
3. Wear protective clothing that is removed prior to leaving the site in order to prevent tracking PCBs off-site.
4. Use plastic sheeting to cover floors and other items in the work area to prevent the spread of PCB-containing dust.
5. Seal air-vents and turn off the HVAC system servicing the work area.
6. Regularly clean the work area with wet methods and vacuums equipment with HEPA filters.

The Cohen Group is trained and equipped to assist in the identification and methods of handling PCB-containing building materials. Please contact us with any questions or concerns.

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