



Focus on: Identifying PCBs in Building Materials



What are PCBs?

Polychlorinated biphenyls (PCBs) are a class of synthetic chlorinated chemicals not found naturally in the environment. They're persistent, bioaccumulative, and toxic (PBT) chemicals and probable human carcinogens.

Studies show PCBs were widely incorporated into building materials between 1950–1979 to improve flexibility, adhesion, and durability. Buildings built or renovated during this time period may contain PCBs.

Building materials that contain PCBs can impact our waterways. Stormwater runoff from these sources is a major pathway for PCBs to enter surface waters.

These are common building materials that contain PCBs and are often exposed to weather conditions that could impact stormwater contamination:

- Caulk, grout, expansion joints, and other joint material (such as putty, silicon, or bitumen)
- Paints, sealants, coatings, varnishes, and lacquers (particularly oil-based paint)
- PCB/asbestos-coated metal sheets (trade names: Galbestos and Robertson Protected Metal), asphaltic roofing, and tar paper materials

Protect our stormwater

If you identify building materials you suspect to contain PCBs, prevent them from entering stormwater drainage systems. Read more in [our focus sheet about protecting stormwater from PCBs](#).¹

Identifying PCBs in building materials

In 2022, we [developed a guide](#)² to help property owners, developers, contractors, and other interested parties identify and manage PCBs in building materials. We included steps to help property owners identify and inventory building materials suspected to contain PCBs.



Step 1: Look for PCBs by age, use, and building structure

Find out:

- Was your building built or renovated between 1950 and 1980?
- Is your building commercial, industrial, or multi-story residential?

If you answer yes to these questions, continue to Step 2.

Note: Buildings built or renovated in the 1980s may also contain PCBs if contractors used stocks of PCBs purchased before the manufacturing ban (such as paint or sealants). Multi-story residential, commercial, and industrial-use buildings are most likely to contain PCBs—it was common for builders to use PCB-containing caulk in stand-up (or tilt-up) concrete and masonry buildings.

¹ <https://apps.ecology.wa.gov/publications/SummaryPages/2304026.html>

² <https://apps.ecology.wa.gov/publications/SummaryPages/2204024.html>



Step 2: Identify and inventory suspect building materials

If you suspect your building could contain PCBs, document and photograph:

- The current condition (such as deterioration, delamination, and physical damage).
- An estimate of the material quantity, color, and location.

Some building materials may not be visible due to building construction or previous renovations, such as flooring covered by carpet or replaced windows covering old caulking. Look for evidence of these materials in the building and document them accurately.

Common building materials that contain PCBs

Common building materials that may contain PCBs include:

- Ceiling and floor tiles.
- Window and door frames.
- Rubber and felt gaskets.
- Non-conducting materials in electrical cables (such as plastic and rubber).
- Coal-tar enamel coatings and rust inhibitor coatings.
- Insulation materials.
- Pipe hangers.
- Plastic applications, including vinyl and PVC.
- Sealants, including those used for heating, ventilation, and air conditioning (HVAC) equipment.
- Mastics.
- Synthetic resins and floor varnish.
- Spray-on fireproofing.
- Concrete.
- Bricks and cinder blocks.

Inventory table template

We also developed an [inventory table template](#)³ to help you track what you identify and note the condition and quantity of suspect materials.

Homogeneous Material Description	Approximate Quantity	Condition	Color	PCB Potential	Homogeneous Area/Location	Location to Closest Storm Drain	Comments
Window caulking 1	500 LF	Good, no damage	White to beige	Confirmed	First and second floor, exterior of building	30 Feet, West	Unsafe to sample, will manage as if it contains PCBs
Door caulking 2	100 LF	Poor, severe cracking	White to gray	Suspected	First floor, north and east entry ways	30 Feet, West	
Old paint coating 1	2500 SF	Fair, slight peeling	Aqua green	Unknown	Interior and exterior, painted on brick and drywall	20 Feet, East	
Galbestos paneling	5000 SF	Fair, some locations have damage	Corrugated metal with beige fibers	Assumed	Exterior of building	20 Feet, North	East side of building has damaged panels
Additional notes:							
LF: Linear Feet							
SF: Square Feet							

Figure 1: Example inventory table. Includes homogeneous material description, approximate quantity, condition, color, PCB potential, area or location, location to closest storm drain, and any other comments.

³ <https://apps.ecology.wa.gov/publications/SummaryPages/2204024.html>



Step 3: Review knowledge of suspect building materials

Fully identify the extent of PCB contamination before beginning any destructive work. This will help you properly dispose of PCB-containing materials.

Apply additional knowledge before you consider sampling. Conduct:

- A records review.
- A visual inspection to help you identify, characterize, and estimate the quantities of suspected PCB-containing building materials.

To confirm the absence or presence of PCBs, an accredited lab needs to analyze your building samples. Analytical testing is the **only** conclusive way to confirm there aren't PCBs in your building materials.

Costing tool

In 2022, we worked with a consultant to develop a [costing tool](#)⁴ that considers the above elements so you can broadly estimate your project's costs. Use this to understand the potential costs associated with this type of renovation or demolition.

Consider Next Steps

Before you begin removing PCBs from your building, you must create a sampling plan that fully complies with the Toxic Substances Control Act (TSCA) and Environmental Protection Agency (EPA) requirements. We encourage you to discuss your plan with the [EPA Region 10 PCB coordinator](#)⁵ before beginning renovation or demolition.

If you identified suspect PCB containing building materials and choose not to move forward with construction or demolition, it's still important to protect stormwater.

Related Information

Learn more in this guide and focus sheet:

- [How to Find and Address PCBs in Building Materials](#)⁶
- [Focus on: How to Protect Stormwater from PCBs in Building Materials](#)⁷



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⁴ <https://apps.ecology.wa.gov/publications/SummaryPages/2204036.html>

⁵ <https://www.epa.gov/pcbs/region-10-pcb-program#contacts>

⁶ <https://apps.ecology.wa.gov/publications/SummaryPages/2204024.html>

⁷ <https://apps.ecology.wa.gov/publications/SummaryPages/2304026.html>