

PCBs in Caulk Project - Information Sheet

What are PCBs?

Polychlorinated biphenyls (PCBs) are a group of pollutants that are long-lived in the environment. Though they have been banned from U.S. production since 1979, PCBs remain at many sites and must be disposed of properly to prevent further environmental contamination. PCBs in the environment accumulate in the tissue of fish, wildlife and humans, becoming increasingly concentrated as they move up to higher levels of the food web. PCBs are toxic and cause a variety of adverse health effects.

Why are PCBs in caulk a problem?

Caulk is a flexible material used to seal gaps around windows or door frames, and to make joints between structural components watertight or airtight. PCB-containing caulks and sealants were used in many buildings, including schools, during construction, renovation, or repair from the 1950s through the late 1970s. During this period, PCBs were added to caulk to impart flexibility. Unfortunately, there is no obvious visual marker identifying caulks or sealants that contain PCBs, but field screening and laboratory analysis methods are available. Recently regulatory agencies have focused concerns on these caulks because:

- U.S. EPA has identified the potential for indoor exposure to PCBs from deteriorating caulk, especially in schools.
- In the San Francisco Bay Area, PCBs in caulks or sealants that are released outdoors during demolition or renovation activities (including window replacements) can be washed to the Bay by urban runoff. The levels of PCBs in some species of Bay fish are believed high enough to pose a health risk to people that catch and consume those fish.

PCBs in Caulk Project

The PCBs in Caulk project is a local partnership administered by the San Francisco Estuary Partnership (a project of the Association of Bay Area Governments) with active participation by the Bay Area Stormwater Management Agencies Association and assistance from contractors including San Francisco Estuary Institute and TDC Environmental, LLC (Kelly Moran, Ph.D.). During 2010 and 2011, this project will:

- Evaluate PCB levels in caulk at least 10 Bay Area sites to better understand which types/ages of buildings are most likely to have caulks with PCBs, so that management actions can be targeted effectively. Surveys previously conducted in Europe and other parts of North America have found sealants containing PCBs, sometimes in very high concentrations, in a large proportion of older buildings, particularly those built or renovated in the 1950's, 1960's and 1970's.
- Develop Best Management Practices (BMPs) and associated model policies or ordinances to prevent the release of PCBs from caulks into urban runoff during renovation, maintenance and demolition of Bay Area buildings. The project will build on work that was performed elsewhere and develop methods to identify, handle, contain, transport, and properly dispose of PCB-containing caulks.
- Test and evaluate the effectiveness of the proposed BMPs at three to five sites in the Bay Area and document which methods work best in our region and other lessons learned.

The long-term goal is for Bay Area municipalities to adopt policies or ordinances requiring construction sites to implement the management practices developed by this project, so that legacy caulks containing PCBs are prevented from polluting urban runoff and the Bay.

We need your help

We need to identify sites for evaluating PCBs levels in caulk and for testing BMPs. We also need to convene a work group to guide the project and review its products. To accomplish this work, we seek active input and partnership from:

- Municipal agencies that issue building or demolition permits, oversee building or industrial sites, or conduct maintenance and renovations on their own facilities.
- School districts, governments and private individuals or organizations that manage older buildings, or plan to demolish or renovate them.
- Contractors or organizations for building construction, demolition or renovation.
- Environmental professionals or specialists in assessment and remediation.

Participation in this project offers opportunities to:

- Help Bay Area municipalities comply with the new stormwater NPDES Municipal Regional Permit (MRP), recently issued to 76 Bay Area cities, counties and special districts. We anticipate that successful completion of this project will result in all 76 permittees complying with MRP Provision C.12.b.
- Help shape a new regulatory procedure for managing a common waste that may need management systems comparable to those for lead paint and asbestos.
- Get help assessing or improving your own management procedures.
- Help us “reality-check” new tools and management practices as they are developed to ensure a useful end product.
- Get free information about PCB levels in caulk in your school or other building.

For more information, please contact:

Athena Honore, San Francisco Estuary Partnership; 510-622-2325/ahonore@waterboards.ca.gov

More detailed information about PCBs is available online:¹

- PCBs background and links: <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/about.htm>
- PCBs and caulk (information on minimizing exposure, testing methods, and suggestions for school administrators and contractors working in older buildings): <http://www.epa.gov/pcbsincaulk/>
- PCBs in San Francisco Bay fish, other sources of PCBs in local water bodies and the Total Maximum Daily Load (TMDL) plan to address these problems: http://www.swrcb.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sfbaypcbstdml.shtml

Funding for this project has been provided by the American Recovery and Reinvestment Act of 2009 and the Clean Water State Revolving Fund, through an agreement with the State Water Resources Control Board.

¹Please note that California law may have additional requirements for disposal and related activities. The PCBs in Caulk Project includes coordination with the requirements of both state and federal regulatory agencies.