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## Planning a renovation? Add PCBs to hazardous materials list

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Architects, engineers, contractors and building managers routinely manage the presence of hazardous materials such as asbestos during renovation projects. Less is known about managing PCBs in building renovation projects.

What are PCBs?

PCBs, or polychlorinated biphenyls, are a class of organic compounds that were added to caulking and sealants to increase durability and flexibility. These sealants were used in commercial, institutional, and industrial buildings including schools and colleges constructed in the 1950s through 1970s and are found around window frames, in expansion joints, or in joints in roof construction. Sometimes, due to weathering, leaching, or deterioration, PCB's can also be found in adjacent building materials, such as concrete, brick or metal.

Why are they a problem?

PCBs are a health risk. They are considered a potential carcinogen to humans via direct contact or inhalation. They are regulated by the Environmental Protection Agency and are prohibited from being used above certain concentrations. If PCB's are found in building materials the cost of abatement can increase project costs and impact construction schedules.

How Should PCB-containing materials be managed?

If renovations or capital improvement projects are planned, the presence of PCBs should be evaluated as part of the initial hazardous materials assessments. Proactive steps are essential to avoid potential delays in schedule and added costs.

The first step in evaluating a building for the presence of PCBs is to identify the type and history of the building. If the date of original construction or renovation was during the 1950's through the 1970's then there is a greater likelihood of finding PCBs in the caulking. Samples can be collected for laboratory analysis. The EPA website has extensive information on PCBs in caulking, including testing recommendations and fact sheets.

The means for dealing with PCBs in buildings can vary dramatically, ranging from removals by a qualified contractor to in-place management options with a goal of integrating them into the existing project scope. Proper management, removal and disposal of these materials is required.

In order to deal effectively with the issues surrounding the presence of PCBs in buildings, a strong project team, including an expert in the field of PCB remediation, should be assembled at the early stages of a project. This will ensure that the schedule and budget can be planned to minimize scope expansions, project delays and cost overruns at later stages.

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