S451 BMPs for Building Repair, Remodeling, Painting, and Construction

Description of Pollutant Sources: This activity refers to:

- The construction of buildings and other structures.
- Remodeling of existing buildings and houses.
- General exterior building repair work.
- Containment or removal of known or suspected exterior hazardous building materials.

Pollutants of concern include toxic hydrocarbons, hazardous wastes, toxic organics (such as PCBs), suspended solids, heavy metals, pH, oils, and greases.

PCBs were added to building materials before 1980 (such as caulk and other sealants, joint materials, paint, siding, roofing, and others), and now with age and weathering are at greater risk of being dislodged during demolition and renovation activities. Particles containing PCBs can be washed into the stormwater, contaminating the conveyance system and downstream water bodies, if not properly managed. Prior to 1980, PCB-containing building materials were more often used in public buildings such as schools, hospitals, universities, fire houses, police stations, government offices, military sites, as well as privately owned commercial and large multi-unit residential buildings. Recently, guidance has been developed for characterizing and abating PCBs in building materials that will undergo demolition or renovation (Ecology, 2024). The user should refer to this document for more details on preventing PCBs from entering stormwater.

Pollutant Control Approach: Educate employees about the need to control site activities. Control leaks, spills, and loose material. Utilize good housekeeping practices. Regularly clean up debris that can contaminate stormwater. Protect the drainage system from dirty runoff and loose particles. Prevent PCB-containing dust and solids from entering stormwater and stormwater conveyances.

Applicable Operational BMPs:

- Identify, remove, and properly dispose of hazardous substances from the building before beginning repairing or remodeling activities that could expose them to stormwater. Such substances could include PCBs, asbestos, lead paint, mercury switches, and electronic waste.
- Follow Ecology's guidance document *How to Find and Address PCBs in Building Materials* (Ecology, 2024) for PCB-containing building materials undergoing demolition or renovation.
- When removing suspected PCB-containing materials, avoid working in high wind conditions or take extra precautions when working in wind strong enough to move dust and debris. This could include constructing a wind screen of plastic at the edge of the groundcover to keep dust and debris from spreading.

- Contact the local jurisdiction's stormwater program to inform them when PCB-containing materials are, or are likely to be, present. They may be able to prioritize street sweeping and/or storm drain pipe cleaning in the area.
- Educate employees about the need to control site activities to prevent stormwater pollution, and also train them in spill cleanup procedures. Employees may also include maintenance and landscaping staff working around buildings with exterior PCB-containing materials.
- At all times, have available at the work site spill cleanup materials appropriate to the chemicals used on site.
- Clean up the work site at the end of each work day. Put away materials (such as solvents) indoors or cover and secure them, so that unauthorized individuals will not have access to them.
- Sweep the area daily to collect loose litter, paint chips, grit, and dirt.
- Use a HEPA vacuum below painted walls, caulking seams, windows, doors, downspouts, and any specific exterior features known or suspected of containing PCBs.
- Do not dump any liquid on pavement, on the ground, in the storm drain, or toward the storm drain, regardless of its content, unless it is clean water only.
- Place a drop cloth, where space and access permits, before beginning wood treating activities. Use drip pans in areas where drips are likely to occur if the area cannot be protected with a drop cloth.
- Use ground or drop cloths underneath scraping and sandblasting work. Use ground cloths, buckets, or tubs anywhere that work materials are laid down.
- Clean paint brushes and other tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can subsequently be dumped into a sanitary sewer drain.
- Clean brushes and tools covered with non-water-based finishes or other materials in a manner that enables collection of used solvents for recycling or proper disposal. Do not discharge non-water-based finishes or paints or used solvents into the sanitary sewer, or any other drain.
- Use storm drain covers, or similarly effective devices, to prevent dust, grit, washwater, or other pollutants from escaping the work area. Place the cover or containment device over the storm drain at the beginning of the work day. Collect and properly dispose of accumulated dirty runoff and solids before removing the cover or device at the end of each work day.
- If storm drain covers are not feasible, install and maintain filter inserts in all catch basins that may receive stormwater from the work site (i.e. on the work site property and adjacent street(s)).
- Refer to S431 BMPs for Washing and Steam Cleaning Vehicles / Equipment / Building Structures for best management practices associated with pressure washing buildings.

Recommended Operational BMPs:

- Lightly spray water on the work site to control dust and grit that could blow away. Do not use oils for dust control. Never spray to the point of water runoff from the site.
- Clean tools over a ground cloth or within a containment device such as a tub.
- Consider using filtered vacuuming to collect waste that may be hard to sweep, such as dust on a drop cloth.
- If conducting work in wet weather conditions, consider setting up temporary cover when scraping or pressure-washing lead-based paint.
- Use tools and work methods that generate the least dust and heat. Consider using manual tools, as they generate less fine dust and heat.