

## S424 BMPs for Roof / Building Drains at Manufacturing and Commercial Buildings

**Description of Pollutant Sources:** Stormwater runoff from roofs and sides of manufacturing and commercial buildings can be sources of pollutants caused by leaching of roofing materials, paints, caulking, building vents, and other air emission sources. Research has identified vapors and entrained liquid and solid droplets/particles as potential pollutants in roof/building runoff. Metals, solvents, acidic/alkaline pH, BOD, PCBs, and organics are some of the pollutant constituents identified.

Ecology has performed a study on zinc in industrial stormwater. The study is presented in *Suggested Practices to Reduce Zinc Concentrations in Industrial Stormwater Discharges* ([Ecology, 2008](#)). The user should refer to this document for more details on addressing zinc in stormwater.

Ecology has also researched the characterization and abatement of PCBs in building materials before demolition or renovation ([Ecology, 2024](#)). The user should refer to that guidance document for more details on preventing PCBs from entering stormwater from buildings that have, or likely have, PCB-containing materials on roofs and building exteriors like siding, joint materials (caulk), paint, and other potential sources.

**Pollutant Control Approach:** Evaluate the potential sources of stormwater pollutants and apply source control BMPs where feasible.

### Applicable Operational Source Control BMPs:

- If leachates and/or emissions from buildings are suspected sources of stormwater pollutants, then sample and analyze the stormwater draining from the building.
- If PCBs in external building materials are suspected, assess the building materials and report findings consistent with the guidance in *How to Find and Address PCBs in Building Materials* ([Ecology, 2024](#)).
- Sweep the area routinely to remove any residual pollutants.
- If a roof/building stormwater pollutant source is identified, implement appropriate source control measures such as air pollution control equipment, selection of materials, operational changes, material recycle, process changes, removal/abatement, etc.

### Applicable Structural Source Control BMPs:

- Paint/coat the galvanized surfaces as described in *Suggested Practices to Reduce Zinc Concentrations in Industrial Stormwater Discharges* ([Ecology, 2008](#)).

## Applicable Treatment BMPs:

Treat runoff from roofs to the appropriate level. The facility may use Metals Treatment BMPs as described in [III-1.2 Choosing Your Runoff Treatment BMPs](#). Some facilities regulated by the Industrial Stormwater General Permit, or local jurisdiction, may have requirements that cannot be achieved with Metals Treatment BMPs. In these cases, additional treatment measures may be required. A treatment method for meeting stringent requirements such as Chitosan-Enhanced Sand Filtration may be appropriate.

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