

Stormwater: Category 13 BMPs – Building Repair, Remodeling, and Construction

Department: Environmental Protection

Program: Stormwater

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Authority: ES&H Manual, Chapter 26, Stormwater

Category 13 best management practices (BMPs) help meet requirements for keeping pollutants associated with building repair and remodeling, utility line replacement, resurfacing, and construction out of the storm drain system.

Note that projects involving one acre or more require the following before any construction begins:

- A project-specific stormwater pollution prevention plan (to be developed by the subcontractor)
- A separate permit from the regional water quality control board

BMPs

General

- 13.1 Never dump any waste liquids down the storm drain – only clean stormwater may enter the ground or storm drains. **Cleaning brushes and dumping paint into storm drains and the like are now categorized as illegal dumping and may result in fines.**
- 13.2 Use soil erosion control techniques if ground will be temporarily laid bare.
- 13.3 Use permanent soil erosion control techniques if buildings will be cleared and not replaced.
- 13.4 Keep the work site clean and orderly by removing debris in a timely manner.
- 13.5 In the event of any spill or release, refer to Chapter 16, “Spills”.¹
- 13.6 Inform on-site subcontractors of all BMPs for wastes and discharges and ensure that they are followed.
- 13.7 Maintain good housekeeping practices for management and disposal of waste, discharges, and spills. Ensure that appropriate provisions are written into contracts to enforce these policies.
- 13.8 Protect nearby storm drains to minimize chances of inadvertent disposal of residual paint or liquid, and sediment.

¹ *SLAC Environment, Safety, and Health Manual* (SLAC-I-720-0A29Z-001), Chapter 16, “Spills”, <http://www-group.slac.stanford.edu/esh/environment/spills/policies.htm>

Building Materials and Waste Storage

- 13.9 Store building material under cover or in contained areas. For outdoor storage at a construction site
- Minimize dust and debris from piles of wood, gravel, soil or other materials
 - Use weighted tarps or other appropriate measure to protect from rain
 - Keep the storage area clean every day
 - Protect nearby storm drains
- 13.10 Store generated waste in proper containers and keep the containers closed. Dispose of waste properly.

Painting

- 13.11 Meet the following requirements when painting.

Before Painting

- While you scrape to remove old paint, spread a tarp to collect dust and paint chips. If the paint contains lead or tri-butyl tin, dispose of the paint chips as hazardous waste. (Refer to Chapter 17, “Hazardous Waste”.²)
- Mix paints indoors before starting work.
- Use tarps while you paint and place in-use paint buckets in a pan or on plastic sheeting.
- At the end of the work day, store paint buckets and barrels of materials away from contact with stormwater.

During Paint Cleanup

- If you use water-based paint, clean brushes and equipment in a sink connected to the sanitary sewer. Never discharge paint or rinse water to the storm drain.
- Clean up oil-based paint where you can collect the waste paint and solvents to be handled as small quantity hazardous waste – do not pour it to the sink or to a storm drain.
- Keep leftover paint, solvents, and other supplies for a later use, or deliver them to a solvent recycler with other plant wastes when you ship a batch.
- Empty paint cans and other containers may be small quantity hazardous waste. Latex paint cans are not hazardous waste if the paint is dry. Contact the Waste Management Group (WM) for guidance.
- Do not pour leftover paint down the storm drain or onto the ground. Do not clean brushes into the storm drain or pour buckets of cleanup water to the drain, or wash spilled paint down the storm drain with a hose. These practices are now categorized as illegal dumping and may result in fines.

² SLAC Environment, Safety, and Health Manual (SLAC-I-720-0A29Z-001), Chapter 17, “Hazardous Waste”, http://www-group.slac.stanford.edu/esh/environment/hazardous_waste/policies.htm

Spray Painting

- Use temporary scaffolding to hang drop cloths or draperies to shield you from the wind and to collect overspray. Arrange the draperies to minimize the spreading of windblown materials.
- Be aware of air quality restrictions on spray paints that use volatile chemicals. Consider a water-based spray paint for better air quality compliance.

Outdoor Surface Treatments

- 13.12 Wood preservatives, pavement seal coating, and other outdoor surface treatments commonly contain metals, pesticides, solvents, or polymers that are hazardous materials. Handle and dispose of them properly, as follows:
- Apply only as much of the chemical as the surface can absorb or as needed to cover the paved area.
 - Soak up excess chemicals with absorbent material or rags rather than allowing them to flow to the storm drains or soak into the soil.
 - If the chemicals spill, clean up promptly using dry techniques.
 - When sealing pavement, prevent the sealant from reaching the gutters or drains. Use absorbent booms, or stuff rags into storm drain openings.
 - When treating a roof with wood preservative or sealant, line the gutters with rags. Dispose of the rags properly: as hazardous waste if the substances you are using are hazardous.
 - If you clean a roof or sidewalk before applying preservative, sweep thoroughly to remove loose particles first and then wash with water if necessary.
 - Collect wash water from downspouts or drains where possible and remove particles.
 - Avoid applying surface treatment chemicals during the wet weather season.

Concrete

- 13.13 Advise concrete truck drivers of the designated wash-out areas before they start the job.
- 13.14 Allow washout of concrete mixers only in designated washout areas. These must be away from storm drains and waterways, and washout water must flow into a temporary waste pit in a dirt area where it can percolate through soil. Whenever possible, recycle washout by pumping it back into mixers for reuse. Dispose of settled, hardened concrete in the garbage. Never dispose of washout into the street, storm drains, drainage ditches, or streams.
- 13.15 Secure bags of cement after they are open. Keep windblown cement powder away from gutter, storm drains, rainfall, and runoff.
- 13.16 When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain. Make sure runoff does not reach gutters or storm drains. If necessary, divert runoff with temporary berms.

Stormwater: Category 13 BMPs – Building Repair, Remodeling, and Construction

- 13.17 Prevent aggregate wash from driveway/patio construction from entering storm drains. Either:
- Hose aggregate wash onto dirt areas and spade into dirt;
 - Drain onto a bermed surface, pump and dispose of it properly; or
 - Block a storm drain inlet and vacuum wash water from a catchment.
- 13.18 When breaking up paving, pick up all pieces and dispose properly. Recycle large chunks of broken concrete. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- 13.19 Protect nearby storm drain inlets or channels when saw cutting to prevent concrete particles from entering the storm drain system.
- 13.20 Protect applications of fresh concrete and mortar from rainfall and runoff until the material has dried.

Sand Blasting

- 13.21 Sand blasting can be controlled to keep particles off paved surfaces and out of storm drains as follows.
- Place tarps beneath the area being cleaned to capture the blasting medium and particles.
 - Hang tarps or drop cloths to enclose the work area, using temporary scaffolding if necessary. Arrange the drop cloths to protect the work area from wind, and to capture airborne particles
 - Curtail operations on a windy day
 - Collect dust and particles from the drop cloths frequently, before producing a pile too large to handle easily

Note For a complete list of all BMP categories, see Stormwater: Best Management Practices Index.³

3 Stormwater: Best Management Practices Index (SLAC-I-750-0A16V-001), <http://www-group.slac.stanford.edu/esh/eshmanual/references/stormIndexBMP.pdf>