

STORMWATER BMPs: DRY MATERIALS LOADING, UNLOADING AND STORAGE

AFFECTED FACILITIES

These BMPs apply at all municipal and county facilities where materials (packaged products, drums, cans, bags, dry bulk products and containerized liquids) are loaded or unloaded at a loading dock, in a parking lot or elsewhere. This BMP applies for both hazardous and non-hazardous materials.

BACKGROUND

The loading and unloading of materials usually takes place outside on loading docks or terminals. Materials spilled, leaked, or lost during loading or unloading may collect in the soil or on other surfaces and have the potential to be carried away by storm water runoff or when the area is cleaned. Pollutants may include sediments, deicing materials, nutrients, heavy metals, organics, oil and grease or oxygen depleting materials. Additionally, rainwater may wash pollutants from machinery used to load or move materials.

BEST MANAGEMENT PRACTICES

- Park delivery and loading vehicles in a designated area where leaks can be contained and where material will not enter a storm drain or ditch. If feasible, load or unload all materials indoors or under a cover, shelter or roof overhang.
- Do not load or unload materials near a storm drain inlet unless it is equipped with a shut-off valve, drain cover or seal or other method to keep spills out of the storm sewer or the drain is at a higher elevation.
- Where door skirts are fitted to loading docks, make sure trailers are parked snug against the skirts before handling any materials.
- Only load or unload a vehicle after it is immobilized (e.g., wheels are chocked) to ensure vehicle will not be moved while being loaded or unloaded.
- Only load or unload on paved surfaces: never on bare ground. Spills on soils are very difficult to clean up.
- Keep loading and unloading areas neat and tidy. Sweep outdoor areas as needed..
- Do not load or unload materials that produce excessive dust unless the area is equipped with a dust control device and the dust is disposed of properly.

REQUIRED STRUCTURES AND EQUIPMENT

- If there are storm drain inlets near the loading area, install covers or dykes for these inlets during all loading/unloading operations.
- If door skirts are installed on loading docks, assure that they are tight fitting against the vehicles and that they are not damaged or torn.
- Make sure an adequate spill kit is available near each work area where spills are possible. See *BMP: Spill Clean Up* for details.

INSTALLATIONS REQUIRED FOR NEW CONSTRUCTION OR RENOVATIONS

- Do not install storm drain inlets near material loading or unloading areas unless they are equipped with shut-off valves.
- All loading/unloading areas should be paved.

- Loading /unloading areas should be under a roof or overhang to avoid exposure.
- Grade and slope loading/unloading areas to avoid storm water run-on into the area.

REQUIRED EMPLOYEE AND CONTRACTOR TRAINING

- Train all current employees who perform materials loading or unloading on this BMP.
- Train all new hires and job transferees who will perform material loading or unloading work on this BMP.
- Conduct refresher training for all employees who perform materials loading or unloading on this BMP as needed.
- Train all employees who might be required to clean up a spill or leak on proper spill clean up. (See: *Spill Clean-Up BMPs.*)
- Contracts should stipulate that all contracted employees have been trained in proper stormwater management BMPs.

REQUIRED MAINTENANCE

- Check loading and unloading equipment (forklifts, dock levelers, etc.) regularly for leaks. Repair or replace any leaking components promptly.
- Inspect door skirts regularly for a tight seal around arriving trailers. Repair or replace defective skirts promptly.
- Dust collection devices associated with loading or unloading dust-producing materials such as baghouses, cyclones and cartridge filters should be inspected weekly. If leaks or malfunctions are discovered, they must be repaired or replaced promptly. Clean up all fugitive materials that are on the ground.

RECORDS

- Keep records of employee and contractor training.
- Keep records of inspections and repairs performed on loading and unloading equipment including air pollution control devices.

REFERENCES

1. Colorado's Phase II Municipal Guidance, October 2001
2. *California Stormwater BMP Handbook*, January 2003
3. *Knoxville (TN) BMP Manual, Activities & Methods*, January 2001
4. *City of Tacoma: Surface Water Management Manual (Vol. IV Source Control BMPs)*, January 2003
5. *Municipal Facility Runoff Control Plan* (City of Lakewood, CO)
6. *Best Management Practices for Industrial Storm Water Pollution Control* (Santa Clara Valley, CA)