

## IC9. OUTDOOR LOADING/UNLOADING OF MATERIALS

### Pollution Prevention

Consider pollution prevention measures at all times for improving pollution control. Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most industries:

- Affirmative Procurement - Use alternative, safer, or recycled products.
- Redirect storm water flows away from areas of concern.
- Reduce use of water or use dry methods.
- Reduce storm water flow across facility site.
- Recycle and reuse waste products and waste flows.
- Move or cover potential pollution from storm water contact.
- Provide on-going employee training in pollution prevention.

1. Properly design loading/unloading areas to prevent storm water runoff, runoff of spilled liquids, etc.
2. Park vehicles and conduct loading/unloading only in designated loading/unloading areas so that spills or leaks can be contained.
3. Clean loading/unloading areas regularly to remove potential sources of pollutants.
4. Reduce exposure of materials to rain.
5. Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections.
6. Inspect equipment regularly.
7. If possible, conduct loading and unloading in dry weather.
8. Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.

### Best Management Practices

1. **Properly design loading/unloading areas to prevent storm water runoff, runoff of spills, etc.**
  - Grade and/or berm the area to prevent runoff.
  - Position roof downspouts to direct stormwater away from the area.
  - Grade and/or berm the loading/unloading area to a drain that is connected to a dead-end.
  - The area where truck transfers take place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - Avoid placing loading/unloading areas near storm drains.
2. **Park vehicles and conduct loading/unloading only in designated loading/unloading areas so that spills or leaks can be contained.**
3. **Clean loading/unloading areas regularly to remove potential sources of pollutants.** This includes outside areas that are regularly covered by containers or other materials.
4. **Reduce exposure of materials to rain.**
  - Cover the loading/unloading areas.
  - If a cover is unfeasible, use overhangs, or seals or door skirts to enclose areas.
5. **Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections.**
6. **Inspect equipment regularly**
  - Designate a responsible party to check under delivery vehicles for leaking fluids, spilled materials, debris, or other foreign materials.
  - Check loading/unloading equipment regularly for leaks.
7. **If possible, conduct loading and unloading in dry weather.**

## 8. Training

1. **Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.**
2. **Train employees on proper spill containment and cleanup.**
  - Establish training that provides employees with the proper tools and knowledge to immediately begin cleaning up a spill.
  - Ensure that employees are familiar with the site's spill control plan and/or proper spill cleanup procedures.
  - BMP IC17 discusses Spill Prevention and Control in detail.
3. **Train employees on the proper techniques used during liquid transfers to avoid leaks and spills.**
4. **Train forklift operators on the proper loading and unloading procedures.**
5. **Establish a regular training schedule, train all new employees, and conduct annual refresher training.**
6. **Use a training log or similar method to document training.**

## References

California Storm Water Best Management Practice Handbooks. Industrial/Commercial Best Management Practice Handbook. Prepared by Camp Dresser & McKee, Larry Walker Associates, Uribe and Associates, Resources Planning Associates for Stormwater Quality Task Force. March 1993.

Model Urban Runoff Program: A How-To Guide for Developing Urban Runoff Programs for Small Municipalities. Prepared by City of Monterey, City of Santa Cruz, California Coastal Commission, Monterey Bay National Marine Sanctuary, Association of Monterey Bay Area Governments, Woodward-Clyde, Central Coast Regional Water Quality Control Board. July 1998 (Revised February 2002 by the California Coastal Commission).

Stormwater Management Manual for Western Washington. Volume IV Source Control BMPs. Prepared by Washington State Department of Ecology Water Quality Program. Publication No. 99-14. August 2001.