

Printing and Publishing and the Multi-Sector General Permit (MSGP)

The MSGP is a permit designed to prevent stormwater pollution from entering into our surface waters. Stormwater pollution is likely at Sector X facilities from outdoor storage of printing process waste. Outdoor activities (such as loading and unloading) and raw material storage areas are also potential sources of stormwater contamination. The following BMPs, organized by activity and area, can be incorporated into the facility's Stormwater Pollution Prevention Plan.

BMPs reduce, eliminate or prevent stormwater pollution from reaching Vermont's rivers and streams

What is a Stormwater BMP?

Best Management Practices, commonly referred to as BMPs, are effective ways to reduce the amount of pollution in stormwater leaving your facility. There are two types of BMPs:

- Structural BMPs are things that can be built on site and include physical structures like berms, settling ponds, oil-water separators, and storm resistant shelters.
- Behavioral BMPs are changes that can be made in the way a person operates their business. Behavioral BMPs include conducting regular inspections, regular maintenance of vehicles and machinery, prohibition of certain activities, and employee training.

An effective Stormwater Pollution Prevention Plan (SWPPP) will include both types of BMPs.

Stormwater BMPs for Printing and Publishing— Sector X

The following list of suggested BMPs is organized by activity and can be included in your facility's Stormwater Pollution Prevention Plan (SWPPP). The BMPs cover the following operations:

- Printing
- Plate and Stencil Preparation
- Cleaning
- Liquid Storage and Above Ground Tanks
- Materials Handling and Storage
- Loading, Unloading, and Liquid Transfer
- Spill Prevention and Response
- Training



Plate and Stencil Preparation

- Use aqueous-developed lithographic plates or wipe on plates.
- Recapture excess ink from silkscreen process prior to washing the screen.
- Incorporate practices that use less ink and cleaning emulsion.

Cleaning

- Designate areas for draining or replacing fluids. Cover or disconnect floor drains in these areas.
- Clearly label sinks and containers used to dispose of liquids. Post proper disposal instructions.
- Use scrapers, spatulas, squeegees, or a similar tool to remove excess ink. Ink can be returned to its original container. Always remove as much as ink as possible by hand before using solvents and rags.
- Keep all equipment in good working condition.
- Use the absolute minimum amount of solvent possible.
- Always use the least toxic solvent possible. Use batch distillation to recover solvents on site, a solvent recirculation system, or utilize professional solvent recyclers.
- Use a pump or spray bottle to apply screen reclamation chemicals. This increases the efficiency of the application while reducing the amount of solution used.
- Limit solvent cleaning to a centralized, well ventilated area such as a washout booth.



Liquid Storage and Above Ground Storage Tanks

- Visually inspect tank systems on a frequent and regular basis. Pay particular attention to the tank's foundation, connections, coatings, walls, and the piping system.
- Use double walled tanks.
- Install a secondary containment system (dikes, curbs, or other physical barriers of sufficient height) around both temporary and permanent tanks, and drums to contain 110% of the volume stored.
- Berm or slope the impervious area surrounding the tank to a dead end sump.
- Store liquids in good quality, durable, non-leaking, tightly sealed containers. Replace any damaged containers.
- Inspect the external condition of containers. Look for leaks, corrosion, or other damage.
- Store containers on an impervious surface, in a roofed or three sided structure, or cover with weighted tarps or awnings.
- Limit the stack height of individual containers/drums. Use straps or plastic wrap to stabilize containers.
- Wash empty containers before storing them outdoors.
- Incorporate swales, drainage ditches, curbing, or grading to direct stormwater away from liquid storage areas.
- Store liquids indoors. Store all flammable, reactive, or ignitable liquids per local fire code.

Materials Handling and Storage

- Cover pallets and skids stored outdoors. Use heavy duty tarps, awnings, or store in a roofed structure.
- Wash empty containers before storing them outdoors.
- Note which chemicals are hazardous. Obtain a Material Safety Data Sheet (MSDS) for all chemicals. Make this information readily available to employees.
- Develop a register or log to record information about the facility's chemicals. Include the quantity purchased, receipt date, service life, users, and disposal route.
- Obtain a portable berm and extra drip pans to provide temporary containment.

Loading, Unloading, and Liquid Transfer

- Confine loading and unloading activities to a designated area.
- Conduct loading and unloading indoors or under cover.
- Inspect all containers (including any raw or spent materials) prior to loading and unloading.
- Use drip pans when loading and unloading liquid product.
- Install backflow prevention devices on liquid transfer equipment. Use high level alarm systems on tanks.
- Build berms and dikes around loading and unloading areas. Establish a flow diversion area that redirects stormwater away from loading docks and terminals.
- Minimize run-on of storm water by grading areas designated for transportation
- Avoid loading and unloading materials in the rain.
- All loading operations should occur on an impervious surface.
- Cover storm drains during loading and unloading activities.

Spill Prevention and Response

- Develop a spill prevention and response plan that clearly states procedures to stop the source of a spill and outlines the disposal of contaminated materials.
- Establish a regular schedule for non-hazardous and hazardous waste pick up.
- Always use dry methods (granular absorbents, absorbent socks or pads) to clean up spills.
- Locate spill kits in high activity areas or areas where spills are more likely to occur (such as loading and unloading areas). Keep drip pans, shovels, and brooms in these areas as well.
- Stencil storm drains to remind employees that the site drains to the local waterway.
- Always use spigots or pumps when dispensing new materials. Use funnels when transferring wastes to storage containers.



Training

- Inform employees of stormwater pollution sources, prevention, and implementation of applicable BMPs.
- Ensure that all employees are familiar with the facility's spill prevention and response plan.
- Offer frequent "refresher" courses in the facility's operation and safety procedures.
- Inform employees in the proper storage, use, clean up, and disposal of chemicals and materials.
- Regularly train employees in proper filling and transfer techniques.



Questions or Assistance with your Stormwater SWPPP, contact:

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