the management practices discussed herein are well suited mechanisms to prevent or control the contamination of storm water discharges associated with printing and publishing facilities.

Part I group application data indicate that BMPs have not been widely implemented at the representative sampling facilities. Less than 10 percent of the sampling subgroup reported that

they store some materials indoors; less than 10 percent store hazardous wastes under roof; and less than 5 percent cover drums or have sealed drums. However, 45 percent of the subgroup utilize some type of covering; 45 percent implement good housekeeping practices; and over 40 percent have training on pollution prevention.

The measures commonly used to reduce pollutants in storm water discharges associated with printing and publishing facilities are generally simple and easy to implement. Table X-3 identifies best management practices (BMPs) associated with different activities that routinely occur at printing and publishing facilities.

TABLE X-3.—GENERAL STORM WATER BMPS FOR PRINTING AND PUBLISHING FACILITIES^{i,ii,iii,iv}

Activity	Best management practices (BMPs)
Plate Preparation	use aqueous-developed lithographic plates or wipe-on plates.
Printing	use press wipes as long as possible before discarding or laundering; dirty ones for the first
	pass, clean ones for the second pass.
	squeeze or centrifuge solvent out of dirty rags.
	set up an in-house dirty rag cleaning operation if warranted or send to approved industrial laundries, if available.
	dedicated press for inks with hazardous pigments/solvents.
	segregate used oil from solvents or other materials.
	use water-based inks in gravure and flexographic printing process.
Clean up	label sinks as to proper disposal of liquids.
	keep equipment in good condition.
	use doctor blades and squeegees to remove as much ink as possible prior to cleaning with solvent and rags.
	control solvent use during equipment cleaning, use only what you need.
	designate special areas for draining or replacing fluids.
	substitute nontoxic or less toxic cleaning solvents.
	recover waste solvents onsite with batch distillation if warranted or utilize professional solvent
	recyclers.
	centralize liquid solvent cleaning in one location.
	have refresher courses in operating and safety procedures.
Stencil Preparation for Screen Printing	recapture excess ink from silkscreen process before washing the screen to decrease amount
,	of ink used and cleaning emulsion used
Material Handling and Storage Areas	store containerized materials (fuels, paints, inks, solvents, etc.) in a protected, secure location
	and away from drains.
	store reactive, ignitable, or flammable liquids in compliance with the local fire code.
	identify potentially hazardous materials, their characteristics, and use.
	eliminate/reduce exposure to storm water.
	control excessive purchasing, storage, and handling of potentially hazardous materials.
	keep records to identify quantity, receipt date, service life, users, and disposal routessecure and carefully monitor hazardous materials to prevent theft, vandalism, and misuse of mate-
	rials.
	educate personnel for proper storage, use, cleanup, and disposal of materials.
	maintain good integrity of all storage tanks.
	inspect storage tanks to detect potential leaks and perform preventive maintenance.
	provide sufficient containment for outdoor storage areas for the larger of either 10 percent of
	the volume of all containers or 110 percent of the volume of the largest tank.
	use temporary containment where required by portable drip pans.
	use spill troughs for drums with taps train employees on proper filling and transfer procedures
	inspect piping systems (pipes, pumps, flanges, couplings, hoses, valves) for failures or leaks.
	handle solvents in designated areas away from drains, ditches, and surface waters. Locate
	designated areas preferably indoors or under a shed.
	if spills occur,
	stop the source of the spill immediately.
	contain the liquid until cleanup is complete.
	deploy oil containment booms if the spill may reach the water.
	cover the spill with absorbent material.
	keep the area well ventilated.
	dispose of cleanup materials properly.
	do not use emulsifier or dispersant.

i EPA, Pollution Prevention Programs, Opportunities in Printing. Philadelphia, PA. October 1990.
ii University of Pittsburgh Trust, Center for Hazardous Materials Research Fact Sheet, Pollution Prevention: Strategies for the Printing Industry.
iii EPA, Resource Conservation and Recovery Act (RCRA) document, Does Your Business Produce Hazardous Waste as Many Small Businesses Do. Printing and Allied Industries, EPA/530–SW–90–027g, April 15, 1990.
iv NPDES Storm Water Group Applications—Part 1. Received by EPA March 18, 1991 through December 31, 1992.