TABLE X-1.—DESCRIPTION OF INDUSTRIAL ACTIVITIES, POTENTIAL POLLUTANT SOURCES, AND ASSOCIATED POLLUTANTS i,ii,iii

Activity	Pollutant source	Pollutant				
Plate Preparation	using ink (lithography, letterpress, screen printing, flexography), etch baths, applying lacquer.	solvent, heavy metal, toxic waste ink with solvents chromium, lead.				
Printing	using ink (lithography, letterpress, screen printing, flexography), gravure.	heavy metal waste (dust and sludge), ink— sludges with chromium or lead, ink—toxic wastes with metals, solvents.				
Clean up	used plates: type, die, press blankets and rollers.	ink—toxic wastes with metals, solvents.				
Stencil Preparation for Screen Printing	lacquer stencil film, photoemulsion, blockout (screen filler).	solvents, photographic processing wastes.				
Material Handling: Transfer, Storage, Disposal .	spills and leaks from material handling equipment.	fuel, oil, heavy metals.				
Photoprocessing	spills and leaks from aboveground tankssolvents; trash; petroleum productsdeveloping negatives and prints	fuel, oil, heavy metals, material being stored. heavy metals, spent solvents, oil. heavy metals, spent solvents.				

EPA, Pollution Prevention Programs, Opportunities in Printing. Philadelphia, PA. October 1990.

Based on the similarities of the facilities included in this sector in terms of industrial activities and significant materials, EPA believes it is appropriate to discuss the potential pollutants at printing and publishing facilities as a whole and not subdivide this sector. Therefore, Table X–2 lists data for selected parameters from facilities in the printing and publishing sector. These

data include the eight pollutants that all facilities were required to monitor for under Form 2F, as well as the pollutants that EPA has determined may merit further monitoring.

TABLE X-2.—STATISTICS FOR SELECTED POLLUTANTS REPORTED BY PRINTING AND PUBLISHING FACILITIES SUBMITTING PART II SAMPLING DATA¹ (mg/L)

Pollutant Sample type	No. of Facili- ties		No. of Sam- ples		Mean		Minimum		Maximum		Median		95th Percentile		99th Percentile	
	Grab	Compii	Grab		Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp
BOD ₅	15 15	15 15	33 33	33 33	12.8 64.5	7.7 45.97	0.0 0.0	0.0 0.0	61.8 239.0	27.0 171.0	9.0 49.0	6.40 40.0	45.9 241.5	24.05 203.0	94.1 492.9	1.9 432.1
Nitrate + Nitrite Nitrogen	15		27	26	1.18	1.22	0.00	0.0	5.80	5.30	0.73	0.82	3.46	3.25	6.14	5.40
Total Kjeldahl Nitrogen Oil & Grease	15 15	15 N/A	33 33	33 N/A	3.01 10.7	1.78 N/A	0.00	0.0 N/A	10.00 98.0	6.70 N/A	1.50 1.0	0.98 N/A	11.61 51.1	5.64 N/A	25.09 149.7	10.65 N/A
pH	14	N/A	26	N/A	N/A	N/A	5.4	N/A	8.6	N/A	7.0	N/A	8.3	N/A	8.9	N/A
Total Phosphorus Total Suspended Solids	15 15	15 15	33 33	33 33	0.34 88	0.33 29	0.00 0	0.0 0	1.80 660	2.10 104	0.16 30	0.13 26	1.34 445	1.25 121	3.03 1383	2.84 263

i Applications that did not report the units of measurement for the reported values of pollutants were not included in these statistics. Values reported as non-detect or below detection limit were assumed to be 0.

3. Options for Controlling Pollutants

In evaluating options for controlling pollutants in storm water discharges, EPA must achieve compliance with the technology-based standards of the Clean Water Act [Best Available Technology (BAT) and Best Conventional Technology)]. The Agency does not believe that it is appropriate to establish specific numeric effluent limitations or a specific design or performance standard in this section for storm water discharges associated with industrial activity from printing and publishing facilities to meet BAT/BCT standards of the Clean Water Act. Instead, this section establishes requirements for the development and implementation of site-specific storm water pollution prevention plans consisting of a set of Best Management Practices (BMPs) that are sufficiently flexible to address

different sources of pollutants at different sites.

Certain BMPs are implemented to prevent and/or minimize exposure of pollutants from industrial activities to storm water discharges. EPA believes the most effective BMPs for reducing pollutants in storm water discharges are exposure minimization practices. Exposure minimization practices lessen the potential for storm water to come into contact with pollutants. Good housekeeping practices ensure that facilities are sensitive to routine and nonroutine activities which may increase pollutants in storm water discharges. The BMPs which address good housekeeping and exposure minimization are easily implemented, inexpensive, and require little, if any, maintenance. BMP expenses may include construction of roofs for storage areas or other forms of permanent cover

and the installation of berms/dikes. Other BMPs such as detention/retention ponds and filtering devices may be needed at these facilities because of the contaminant level in the storm water discharges. The types of BMPs implemented will depend on the type of discharge, types and concentrations of contaminants, and the volume of the flow

The selection of the most effective BMPs will be based on site-specific considerations such as: facility size, climate, geographic location, geology/hydrology and the environmental setting of each facility, and volume and type of discharge generated. Each facility will be unique in that the source, type, and volume of contaminated storm water discharges will differ. In addition, the fate and transport of pollutants in these discharges will vary. EPA believes that

[&]quot;University of Pittsburgh Trust, Center for Hazardous Materials Research Fact Sheet, Pollution Prevention: Strategies for the Printing Industry. "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.

ii iiComposite samples.